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The role of the insider translator in conservation and development: comparing multilingual (auto)ethnobotanical books from Tanzania, Thailand, and Taiwan

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Abstract: This article compares recent multilingual (auto)ethnobotanical books from Tanzania, Thailand, and Taiwan in terms of the role that the "insider translator" might play in linguistic, cultural, or environmental conservation or development. The books were motivated by similar concerns, but differ in the backgrounds of the authors, including translators and compilers. How did the backgrounds of the authors – as cultural outsiders or insiders – condition the form and content of the (auto)ethnobotanical books? What approach to authorship might be most effective for achieving the intended aims of the (auto)ethnobotanists? Based on textual analysis, interviews, and fieldwork, the main findings are as follows. The interlingual translation in the Tanzanian and Thai cases was unidirectional out of the local language, because the compilers, who were outsiders, were more concerned about the conservation of endangered languages, cultures, and environments. There was no division of labor between compiler and translator in the Taiwanese case, and the translation was bidirectional, because the authors were committed to the development of their language. It stands to reason that an autoethnobotanical effort, one made by cultural insiders, to conserve traditional plant knowledge or develop an ancestral language would be more effective than an ethnobotanical one; but the long-term effectiveness of any of the multilingual (auto)ethnobotanical books needs further comparative research.

Keywords: autoethnobotany; translation; CSIs (culture-specific items); conservation; development; Sediq

Abstract: 本文比較坦尚尼亞、泰國與台灣近期出版的多語言民族植物學書籍，探討譯者作為局內人在語言保育與發展中所扮演的角色。三個案例的目的相似，作者—包括翻譯者與編纂者—的背景不同。作者的背景—身為局外人或局內人—如

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何形塑（自我）植物學書籍的形式與內容？哪一個編譯模式最能有效達到（自我）植物學家的目的？根據文本分析、訪談與田野調查的主要研究結果如下。坦尚尼亞和泰國的案例為單向翻譯，由本地語言譯入國家語言與英語，因為外來的編纂者希望保存脆弱語言、文化或環境。在台灣的案例中，編者與譯者之間並無分工，且為雙向翻譯，因為「自我民族植物學家」有意發展其語言。按理來說，以自我植物學的方式來傳承傳統植物知識，會比純粹以民族植物學的方式更加有效；然而這種（自我）民族植物學的轉錄與翻譯如何能達到其預期目的，則需要更進一步的比較研究。

1 Introduction

This article compares recent multilingual (auto)ethnobotanical books from Tanzania, Thailand, and Taiwan. The books from Tanzania and Thailand are trilingual, in an Indigenous minority language, a national language, and the global lingua franca. The Tanzanian book is in Kiha, Kiswahili, and English; the Thai book is in Northern Khmer, Thai, and English. The book from Taiwan is bilingual, in an Indigenous minority language, Sediq, and the national language, Mandarin Chinese.[1] The Tanzanian and Thai books were ethnobotanical, where an ethnobotanical book records traditional knowledge of plants. The Taiwanese book was autoethnobotanical, where the prefix "auto" means "authored by cultural insiders."

In terms of authorship, however, all the books were complicated collective efforts, involving: 1. informants, 2. compilers, and 3. translators. These different kinds of author differed in terms of insider or outsider status. All the informants were insiders. The Tanzanian and Thai books were compiled by outsiders, expert allies of the local communities. In the Taiwanese case, by contrast, the compilers were insiders. In the Tanzanian and Taiwanese cases, the translators were insiders, while in the Thai case they were outsiders. There was no division of labor between informant and translator in the Tanzanian case, or between compiler and translator in the Taiwanese case.

All the books were produced through a process of translation, broadly construed. In some sense, the informants translated the tacit traditional knowledge in their minds into explicit verbal form; knowledge that was in the heads and hands of elders could now be written down and translated "interlingually," into other languages. The knowledge that was translated had been elicited according to the

1 In this article, Indigenous does not necessarily mean there is official recognition of Indigenous status; the Sediq have such recognition, but the Ha and the Northern Khmer do not. Indigenous does mean that the people have lived in a place and off the land since time immemorial but are now living under colonization, broadly construed.

concerns of the compilers, who also translated "intersemiotically," by pairing the multilingual textual descriptions with pictures (Jakobson 2000 [1959]: 114). In a way, everyone involved can be described as a translator, or an author.[2]

A comparison of the three cases is a chance to assess the achievements of different (auto)ethnobotanists according to their different approaches. It is also an opportunity to promote constructive dialogue. The Tanzanian, Thai, and Taiwanese (auto)ethnobotanists did not just work independently but in ignorance of one another. This article will try to put them on the same page, as it were, in terms of two debates in translation studies, conservation and development on the one hand and insider and outsider status in cultural translation on the other.

1.1 Conservation and development in translation studies

Conservation and development, especially so far as Indigenous minority peoples are concerned, constitute the dialectical concern that has motivated this article. All three peoples featured in this article appear to want the benefits of development, consisting in all the comforts and freedoms of modern life. But such peoples often benefit less from development than the ethnic majorities in their respective societies. They also suffer disproportionately from the disadvantages of development, especially damage to or alienation from the natural environment. In addition, their cultures of living off the land and the languages in which these cultures were lived were suppressed by national governments for much of the twentieth century. Now that states such as Taiwan have switched to multicultural models informed by principles of sustainability, is it possible to include Indigenous minority peoples in development without sacrificing languages, cultures, and ecosystems?

Translation scholars have responded to aspects of this very big question. Scholars of "minority translation," meaning translation into or out of minority languages, have, since the 1980s, articulated the linguistic and cultural importance of translation to minority peoples. As Michael Cronin put it, "Minority languages that are under pressure from powerful major languages can succumb at lexical and syntactic levels so that over time they become mirror images of the dominant language" (2003: 141). Later on the same page Cronin proposes a strategy of

2 I do not subscribe to a Romantic notion of authorship, where an author creates something out of nothing. In this case, the informants can be viewed as authors, as they produced the rough drafts of the entries in the (auto)ethnobotanical books, but they were inheritors of traditions. The compilers were also authors, in that they not only shaped the raw materials but also elicited them, but the materials did not originate with them. Translators are the authors of translations, which have originals.

conservation or development: engaging in "the critical consideration of what a language absorbs and what allows it to expand and what causes it to retract, to lose the synchronic and diachronic range of its expressive resources." What might cause a language to expand is an open question.

Writing in 2003, Cronin was thinking of languages like Irish, Catalan, Basque, and Israeli that had substantial support from national or regional governments, but since then scholars have looked at the role of translation in the conservation or development of much more vulnerable languages such as Karelian, a "critically endangered language" (Kuusi et al. 2022: 157) of Finland and Russia that Päivi Kuusi and her colleagues have been studying for at least the past half-dozen years (see Kuusi et al. 2017). In a recent study of "language making" in Karelian, they cite (Kuusi et al. 2022: 156) Michael Cronin's aforementioned admonition, demonstrating his enduring influence in the field.

Cronin explores another aspect of conservation in his wide-ranging book on eco-translation in the Anthropocene (2017). As the greatest driver of geological change, human beings have the power to destroy ecosystems. Translators can help preserve ecosystems by translating "environmental representations" (Cronin 2017: 115), textual and visual representations of the environment like the Tanzanian, Thai, and Taiwanese (auto)ethnobotanical books discussed in this article.

Touching on translation's role in the "cultural ecosystem in which the indigenous language functions," Cronin writes: "If translation occupies a preponderate place in the life of the language to the detriment of other forms of written and oral production in the language, then concerns can emerge about the viability or sustainability of the indigenous language as a distinct entity" (149). He has been making this point since at least 2003. In fact, scholars such as Gideon Toury in Israel in the 1980s (see Toury 1985) had made a similar point. But Toury, writing in 1985, could share a success story (9–10): although Israeli, modern Hebrew, had come under the literary and linguistic influence of languages such as Russian through translation, Israeli-speakers were now using Israeli creatively and independently, so translation no longer occupied "a preponderate place in the life of the language" (Cronin 2017: 149). In short, Israeli had developed.

Over the past decade, scholars of translation have devoted some attention to issues of development, not just linguistic but also economic and social. Marais (2014: 119–204) discussed the roles that translation can play in development to better the lots of individuals and communities, particularly in his home country, South Africa. He touched on sustainable development (2014: 129), but he did not discuss development in regards to Indigenous peoples. In his introduction to an issue on development and translation in the journal *Translation studies* in 2018, he mentioned Indigenous peoples (2018: 296, 298) for the first time in a development studies context,

without discussing their particular problems, namely a history of "colonial domination" (Cronin 2017: 115) and resulting linguistic and cultural endangerment. In the introduction to the 2022 issue on "inclusive development" in *Linguistica Antverpiensia, new series – Themes in translation studies*, Marais and his co-editor Marija Todorova argue that traditional and Indigenous knowledge needs to be translated so that it can inform "solutions to environmental hazards" (Marais and Todorova 2022: 10). They also refer to "the importance of indigenous vocabulary in offering an alternative policy of conservation" (10). According to them, the transcription and translation of Indigenous minority knowledge of nature is important not just for Indigenous minority peoples, as a matter of their identity, but also to the health of the environments they live in, environments that they share with non-Indigenous neighbors. In this way, inclusive development is a matter of environmental conservation.

One important issue in development is insider or outsider status. Well-meaning outsiders can try to act as allies of Indigenous minority communities, but it stands to reason the effectiveness of a development project might be curtailed if locals do not identify with the project or if they are not in leadership roles. In translation studies, insider or outsider status has been discussed in a cultural translation context.

1.2 Insider and outsider status in cultural translation studies

Translators often have the sense that they are translating not just texts but cultural contexts or backgrounds, particularly when they encounter CSIs, culture-specific items (Aixelá 1996). A translator's ability to translate CSIs effectively relates to his or her status as an outsider or insider. The translator had better be an insider to the target culture to know how to explain a CSI so that readers can understand it. At the same time he or she must understand the source culture well enough to grasp the significance of the CSI. The better the "outsider translator" understands a CSI, the more he or she might forget that the target reader does not. The "insider translator," a term that I have borrowed from the translation scholar Hanada Al-Masri, is even more prone to such a "cognitive blinder," "when the translator's over familiarity [sic] with the source language leads him [sic] to assume/presuppose the target readers' familiarity with what they read" (2009: 37). In a more recent paper, Al-Masri is more confident in the insider translator's ability to serve as "cultural mediator" in being "a cultural insider to both ST [source text] and TT [target text]" (2017: 17). A common feeling among translators is being or at least becoming bicultural, as if one has one foot in each culture, or one eye on each world.

There has, surprisingly, been a lot of resistance to the idea of the translator's biculturality. Karen Bennett demonstrates that Maria Tymoczko, Gideon Toury, and Friedrich Schleiermacher, all names to reckon with in translation studies, believed in "the translator's embedment in a cultural and ideological context" (2012: 45). Bennett contrasts such "embedment" with the feeling many translators have of being travelers. On this point she quotes Michael Cronin, who wrote, "The translator/traveler embraces the analog mode of both/and rather than the digital mode of either/or" (2000: 106; cited by Bennett 2012: 56). For the translator to embrace the analog mode would be to acknowledge that one can never be *fully* an insider, if that means knowing all there is to know about a culture, even one's own.

2 Case studies, questions, methods

The foregoing discussions raise the issue of the role that the translator, whether as an insider or outsider, can play in environmental, cultural, or linguistic conservation or development. To readers outside of translation studies, or even to translation scholars, however, they may seem overly abstract, general, or theoretical. Case studies can be grounding. This article responds to a pair of case studies that broach the role that the translator can play in transcribing and transmitting traditional knowledge of plants, and of ecology in general, in Tanzania and Thailand.

In the title of their 2020 photo-essay about the trilingual ethnobotanical "booklets" they compiled in Tanzania, the ethnobotanists Maria Fadiman and Grace Gobbo ask: "Can making a book conserve a forest?" While they have not yet answered their question, a book can conceivably have such an effect. In the question they ask in the title of their 2022 chapter on the same booklets, they switch to the indicative: "What role does language play in conserving forests and culture?" This, too, remains an open question. The Thai researchers Narongdej Phanthaphoommee, a translation scholar, and Siripen Ungsitipoonporn, a linguist, asked two much narrower questions (2023: 562) about the trilingual ethnobotanical conversation textbook that Ungsitipoonporn had edited. Both questions are about translation: 1. "What aspects of ethnobotanical items pose translation problems, and how do translators deal with them?" 2. "How does the translation team, as an important agency, rationalise their involvement in revitalising the lesser-known vernacular such that the majority of Thais and internationals acknowledge its existence?" This second question implies that translators can play roles in language revitalization.

The questions I pose in this article are inspired by the reflections of Fadiman, Gobbo, Phanthaphoommee, and Ungsitipoonporn, but also arise out of the translation studies literature on conservation and development on the one hand and the translator's insider or outsider status on the other. My questions are: 1. How did the

backgrounds of the authors – as cultural outsiders or insiders – condition the form and content of the (auto)ethnobotanical books? 2. What approach to authorship might be most effective for achieving the intended aims of the (auto)ethnobotanists? "Background" in the first question includes academic training as well as ethnic belonging, both of which might condition each author's concerns about conservation and development and his or her approach to the work of compilation or translation, including what kind of funding body to direct an application to. In terms of effectiveness in the second question, we can at present comment only on the products, the multilingual ethnobotanical books themselves. The possible long-term effects are addressed in the conclusion.

To answer these two research questions, three cases of multilingual (auto)ethnobotany are compared. The comparison is summarized in Tables 1 and 2 below.

The only column in Table 1 that may be difficult to interpret is translation orientation. Most translation is unidirectional, from one language to another. Fadiman and Gobbo write: "the information in the booklet [sic] was in the local language, Kiha, then Kiswahili and lastly English" (2022: 198). This phrasing suggests that the two Tanzanian booklets involved relay translation (St. Andre 2020) through Kiswahili. But as I shall show, the process of composition and translation may have been more complicated than Fadiman or Gobbo realize. In any case the translation was unidirectional. The Thai case was also unidirectional, and definitely involved relay translation.

Table 1: Three cases of multilingual (auto)ethnobotany.

Country	Entries	Words/ entry	Monolingual wordcount[a]	Format	Lingual order	Translation orientation
Tanzania	45 + 52 = 97	~50	~4,850[b]	Point-form notes	Trilingual	Unidirectional: Kiha > Kiswahili > English?
Thailand	30 + 35 = 65	~285	~18,450[c]	Dialogues	Trilingual	Unidirectional: Northern Khmer > Thai > English
Taiwan	103	~190	~19,300[d]	Mini essays	Bilingual	Bidirectional: Chinese<>Sediq

[a]The monolingual wordcount is in the local language. The total wordcounts would be multiples thereof. [b]There are 45 entries in the first book and 52 in the second (Fadiman and Gobbo 2022: 207). I counted the words in one entry and multiplied by 97 entries to estimate the wordcount. [c]65 Plants are described (Phanthaphoommee and Ungsitipoonporn 2023: 567) in two volumes, Ungsitipoonporn 2020a; 2020b (see Phanthaphoommee and Ungsitipoonporn 2023: 570). The total monolingual wordcount of both volumes is estimated based on the Northern Khmer wordcount of Ungsitipoonporn 2020a. [d]Iwan Pering et al. 2017: 18–223. The wordcount of the "non-Asian words," all of which were in Sediq, in the Taiwanese book was calculated by MS Word.

Table 2: Authorship of the (auto)ethnobotanical books.

Title	Funding	Compiler	Year	Compiler background	Compiler = Translator	Translator Background
People and Plants: Useful plants of Bubango Community *People and Plants: Useful plants of Mwamgongo Community*[a]	International conservation NGOs	Maria Fadiman & Grace Gobbo	2014? 2016?	Ethnobotanists (outsiders)	No	Community members (insiders)
Digital Documentation of the botanical knowledge of Northern Khmer speakers: Linguists, botanists, and community members working together (in two volumes)[b]	British development agency	Siripen Ungsitipoonporn	2020	Linguist (outsider)	No	Novice translators (outsiders)
Tgdaya/Truku/Toda Ethnobotany[c]	Local government agency	Iwan Pering et al.	2017	Specialists (insiders)	Yes	Specialists (insiders)

[a]Fadiman & Gobbo 2022: 208. [b]As translated on the last page of Ungsitipoonporn 2020a. [c]Tapas 2020: 39. Tgdaya, Truku, and Toda are three dialects of the Sediq language.

Translators often back-translate, that is, they translate back into the original language, to check accuracy; but that is not what is meant by bidirectional translation in the bottom right cell of Table 1. Rather, bidirectional translation means that parts of the essays in the Taiwanese book were translated into Chinese, other parts into Sediq. The individual parts were translated unidirectionally, but each essay, and the book as a whole, involved bidirectional translation. It is also possible that some originals were revised after being translated, necessitating further revisions to the translation, as can happen in cases of self-translation, where there is no division of labor between original author and translator (Grutman 2020). Such was the case for the Taiwanese book.

Authorship of the Tanzanian, Thai, and Taiwanese books is summarized in Table 2. The Tanzanian booklets feature Maria Fadiman and Grace Gobbo's names on the covers, but no copyright pages are available. The dates of publication are estimated (based on Fadiman and Gobbo 2022: 202). Fadiman and Gobbo are both ethnobotanists. As expert allies, they were outsiders to the communities they were trying to help. Insiders did the translation, some as informants, so that they were self-translating. The title of the Thai book suggests collective authorship, but only the project leader Siripen Ungsitipoonporn, a linguist who has been studying the Northern Khmer for over a decade, is listed on the copyright page, as the "editor." Ungsitipoonporn supervised two novice translators, both outsiders (Phanthaphoommee and Ungsitipoonporn 2023: 567). Eight insiders compiled and translated the Taiwanese book, without any division of labor between compiler and translator. They all had native-level ability in Chinese and knowledge of the Taiwan cultural context, in addition to being "specialists of tribal culture and language" (Tapas 2020: 39). They were thus "cultural insider[s] to both ST and TT" (Al-Masri 2017: 17).

For the Tanzanian and Thai cases I depend on the scholarship of Fadiman and Gobbo (2020, 2022) as well as Phanthaphoommee and Ungsitipoonporn (2023). I made multiple attempts to contact Fadiman and Gobbo. Phanthaphoommee immediately replied to my e-mail and generously shared volume 1 of the trilingual ethnobotanical book that Ungsitipoonporn had compiled in pdf format (2020a). I lack the national languages relevant to the Tanzanian and Thai cases, let alone the local languages. I used Chat GPT 4.0 or Google Translate to translate from Kiswahili and Thai into English, edited the translations with native speakers, and referred to the English translations in the Tanzanian and Thai books.

For the Taiwanese case, I have speaking and reading ability in the relevant languages, Chinese and Sediq. I have a pdf of the autoethnobotanical book discussed in this article. I also know many of the compiler-translators personally and was able to ask them questions. I interviewed one of them, Uya Pawan, who is known as a local "plant expert." For the Taiwanese case, my methodology includes a semi-structured

interview. It includes the fieldwork[3] I did in fall of 2022, when I took five courses in a master's program in Indigenous culture at Providence University.

The objects of study in each case are the (auto)ethnobotanical books, the people who authored them as informants, compilers, and translators, and the contexts in which they worked.

2.1 Tanzania

Having applied for funding from conservation-oriented international NGOs, including the National Geographic Genographic Legacy Fund, the National Geographic Emerging Explorers Program, and the Jane Goodall Institute (Fadiman and Gobbo 2020, 2022: 216), the ethnobotanists Maria Fadiman and Grace Gobbo did fieldwork for multilingual ethnobotanical "booklets" in two Ha communities in western Tanzania from 2014 to 2016. Both communities border Lake Tanyanika just south of the Gombe Stream National Park. Gobbo had previously worked with one of the communities, Bubango. The other community, Mwamgongo, invited Fadiman and Gobbo to do a follow-up project after hearing about the success story in Bubango.

In a chapter they wrote about the booklets, Fadiman and Gobbo place the Ha in ecological context. "Most communities practice subsistence agriculture, growing sorghum, millet, corn, cassava, yams, and peanuts, as well as other crops" in addition to fishing in the lake and hunting in the woods (2022: 202). Fadiman and Gobbo do not idealize the Ha. They refer for instance to "forest destruction" (200) due to Ha livelihoods. It is unclear whether the forest destruction is due to the Ha way of life per se, or has resulted from recent changes to that way of life, at a time when the Ha are forgetting how they once lived. Regardless, Fadiman and Gobbo's solution is education. In the 2020 photo-essay they did about their work with the Ha, they spell out their logic as follows:

> People value what they use, and use what they know. If they are able to utilize plants in local forests, people are more likely to see the value of habitat protection. (Fadiman and Gobbo 2020)

Apparently "only interested in their cell phones" (202), Ha youngsters are in danger of growing up ignorant of traditional ethnic plants and alienated from nature. They might already be suffering from nature-deficit disorder (Louv 2008; cited by Fadiman and Gobbo 2022: 215). But Richard Louv, who is famous for proposing the notion of a nature-deficit disorder, argued that "when children at a young age bond with nature,

3 The fieldwork I did in connection with this article was for a project entitled Minority Autoethnobotany that was funded by the Research Grants Council of the Hong Kong Special Administrative Region, China (LU 13602221).

they connect with their environment and demonstrate interest in taking direct action to protect their landscape" (Fadiman and Gobbo 2022: 215).

So Fadiman and Gobbo taught Ha children basic fieldwork methods. They taught them how to ask their parents and grandparents the names and uses of ethnic plants (206). They taught them how to collect specimens and use a press to prepare them. In Mwamgongo, they even set up a mini-herbarium with labels for the specimens that children could fill in (206). The children "would use candles to continue writing their labels into the night" (211).

Fadiman and Gobbo assumed that such environmental education should be done in Kiha, the local language. Kiha is in the same family as the national language Kiswahili, the Niger-Congo family (202).[4] Largely oral, Kiha is still spoken, but there is "language weakening" (199–200), especially among young people, who are educated in Kiswahili and English. Fadiman and Gobbo draw on research claiming that hotspots of linguistic diversity are usually also hotspots of biological diversity (198–199). On this basis they make a logical leap, that maintaining biological diversity should involve maintaining linguistic diversity. Locally, it should involve keeping languages like Kiha alive by writing down texts in the language (200). The authors argue that knowledge of nature is specific to a language, suggesting that any language deserves conservation, but the examples they give are from other languages, other cultures (199).

The authors encountered "resistance" (204) from potential informants, who wished to keep their private knowledge private because their livelihoods depended upon it. But they agreed when Fadiman and Gobbo assured them they could choose what to share. They even participated enthusiastically in the translation into Kiswahili and English. With their help, Fadiman and Gobbo compiled a pair of trilingual booklets. They had to have them printed well over a thousand kilometers away in Dar es Salaam (205).

The only photographic evidence I have found of a page from one of the booklets is about a "plant made for dances" (Fadiman and Gobbo 2020; see also 2022: 208). It is unclear which booklet it is from or what page it is on. Illustrated with photographs taken by Maria Fadiman, the plant in question is *Oncoba spinosa*. *Oncoba spinosa* is called the snuff-box tree, fried egg tree, or fried-egg flower in English, but the name is not translated into English, only recorded in Kiha. Its name in Kiha is umuyebhe. The name is followed a five-point trilingual description in Kiha, Kiswahili, and English. I have no way of checking the Kiha original, but the Kiswahili translation has been translated into English with Chat GPT 4.0 and checked with a native speaker, Clara Kikois.

4 According to Wiktionary, the prefix ki-in Kiha and Kiswahili marks a noun class that includes languages.

Kiha:

1. **Ingene yibhiti:** Ni giti chu muyebhe, kilakula kikamako ibhintu vyumu viringo bhiteye ngakuya kwa mabhungo.
2. **Akazi bhikola:** Ugukolako amayebhe yi usambele.
3. **Luhande:** Amatunda.
4. **Akazi bhikogwa:** Avuze shuusha musumari, uhweje kuteka utobholetobhole, ukulemo bhiyabhilimo, uhweze utole imbegu zu bhulengo ubhikemo; ushileko numugozi wambale, utangule kuvyina.
5. **Ukulonkekana:** Ni bhikeyi.

Kiswahili:

1. **Tabia za mmea:** Ni mti wenye miiba na uzaao matunda makubwa saizi ya yai la kanga.
2. **Matumizi yake:** Kutengeneza njuga kwa ajili ya ngoma ya Usambele.
3. **Mahitaji:** Matunda makavu, mbegu za *Bhulengo* na msumari.
4. **Jinsi ya kutayarisha:** Chemsha tunda kutoa ngozi ya juu, na mbegu, ikishakauka toboa matunda madogo; ingiza mbegu *Bhulengo* kwenye matunda, unganisha matunda mengi na kamba ili upate njuga.
5. **Upatikanaji wa mmea:** Hupatikana porini na mashambani.

[Kiswahili to English:]

1. [**Characteristics of the plant:** It is a tree with spines and produces fruits the size of a guineafowl's egg.]
2. [**Its uses:** To make ankle rattles for the Usambele dance.]
3. [**Requirements:** Dry fruits, *Bhulengo* seeds, and a nail.]
4. [**How to prepare:** Boil the fruit to remove the outer skin and seeds. Once it has dried, pierce the small fruits; insert *Bhulengo* seeds into the fruits, connect many fruits with a wire/string to make rattles.]
5. [**Availability of the plant:** It is found in the wild and on farms.]

English:

1. **Use:** Musical instrument, anklets for the Usambele dance.
2. **Part Used:** Fruit.
3. **Collection:** Take desired number of fruits from the tree.
4. **Preparation:** Put the whole fruit in the bucket where keep drinking water [sic], and then dry each one on a nail. Then, put the nail in fire [sic] and heat it in order to make small holes in the fruit.
5. **Accessibility and Location:** Rare and found in the village and in the forest.

The point-form notes are reminiscent of fields in a spreadsheet. But at least in Kiswahili and English, the fields are not in the same order. Nor do they contain the same information. Point 1 of the Kiswahili text contains morphological description, which might have originated with Fadiman or Gobbo in English. Even if it did, it does not seem to include anything that was not in Kiswahili to begin with; surely there is a word for "spine" in Kiswahili, and in Kiha.[5] In the corresponding English field, only the growth habit of the plant is given; it is a tree. In point 4, the instructions for the preparation of the plant are also different. Another plant, called bhulengo, is referred to in the Kiswahili text, but bhulengo is a word in Kiha not Kiswahili. That is why *Bhulengo* is capitalized and italicized in the Kiswahili translation. No note is provided for the benefit of Kiswahili speakers. The human-translated English is also written for locals, for people who know what the Usambele dance is – this is another CSI (culture-specific item) that deserves a note – though one of the photos, of a man wearing the rattles on his ankles, compensates to some extent for the sparseness of the description. Point 4 of the English is garbled. What happened?

Fadiman and Gobbo say almost nothing about translation process. They mention a villager named Rashidi "who worked with the translation" (2022: 213). They report that villagers like Rashidi were excited to see texts originally written in Kiha, "not just religious literature translated by others for them" (214). But they do not comment on any difficulties in translation from Kiha to Kiswahili. This is a curious omission given their claim, mentioned above, about the language-specific nature of local knowledge. As noted above, Fadiman and Gobbo write: "the information in the booklet was in the local language, Kiha, then Kiswahili and lastly English" (2022: 198). Yet they also write: "With members from the community, we wrote the text in Kiha, Kiswahili and English" (Fadiman and Gobbo 2022: 205), which suggests that the three versions were composed at least semi-independently. Community members might have written and "transedited" the texts, meaning to edit the translation as they went.

The question remains: why translate? A two-part rationale for translation can be guessed at. First, given that children are being educated in Kiswahili and English, they are likely stronger in these languages than in Kiha. The Kiswahili and English translations might make it easier for them to read the Kiha originals. Second, a trilingual presentation might raise community "visibility" (203), garnering support

5 Kiswahili surely has words for thorns, spines, and prickles, which originate from stems, leaves, and bark respectively. Kiha must at least have a word that includes all three botanical types, like "thorn" in everyday English.

for Ha communities nationally and internationally. Being right next door to a national park that is famous for Jane Goodall's studies of chimpanzees (202) might have reminded the authors of the power of awareness-raising.

2.2 Thailand

After applying for support from the Newton Fund, a British government initiative to "develop innovative solutions" for the developing world, partly through "translation" (gov.uk 2019), Siripen Ungsitipoonporn, a linguist who has worked with Northern Khmer communities since at least 2011 (Phanthaphoommee and Ungsitipoonporn 2023: 587), did fieldwork in 2018 and 2019 for a trilingual ethnobotanical "conversation textbook" (559) in two volumes for use in a Northern Khmer-speaking community called Ban Khanat Pring. The community is located in Surin Province in eastern Thailand on the border with Cambodia; it is closer to Angkor Wat than it is to Bangkok.

Like the Ha of Tanzania, the local people mix farming with hunting and gathering. They not only grow rice, raise livestock, and produce silk but also hunt and forage in a "community forest" (565). Dissimilarly, in the article they wrote about the project, Phanthaphoommee and Ungsitipoonporn do not mention "forest destruction." Environmental sustainability was not an explicit motivation for the project. In her other research on plant recognition (Ungsitipoonporn et al. 2022), however, Ungsitipoonporn is concerned about young people's alienation from nature. In that research she found, counterintuitively, that younger children in Ban Khanat Pring recognize more plants than older children, who, like Ha children in Tanzania, become estranged from the natural environment when they go to school.

Northern Khmer children are also more and more alienated from their ancestral language, for similar reasons to Ha children. As the national language, Thai offers children more economic opportunities, motivating parents to switch to Thai at home (Phanthaphoommee & Ungsitipoonporn 2023: 564). Northern Khmer is now endangered (581). As in Tanzania, the solution to the language endangerment and the nature alienation problems is one and the same, to pass on the language, which contains ancestral wisdom about the local environment, to the next generation.

Thai and Northern Khmer are in different language families. Thai is in the Kra-Dai family, while Northern Khmer is Austroasiatic (564). But the two languages have coexisted for centuries and there are now professional translators between Thai and Khmer, the national language of Cambodia, if not Northern Khmer. But Northern Khmer is close enough to Khmer for a standard Khmer speaker – one of the translators – to pick up over the course of the project (578).

To revitalize Northern Khmer and help pass down plant knowledge, Ungsitipoonporn recruited Northern Khmer elders to share their knowledge of plants in the community forest orally in interviews. No mention of any resistance to sharing information is noted, unlike in the Tanzanian case. The audio recordings were then transcribed in Thai script, which people in this part of the country have been using to write Northern Khmer since 1987 (564). 65 of the transcriptions were selected for the conversation textbook.

Each entry in the textbook is book-ended with professional-quality photographs. The photo that appears at the end includes a color panel and a ruler to give viewers an idea of the hue and size of the plant. Strangely, all the photos are botanical, not ethnobotanical, in nature. Textually, each entry begins with basic linguistic, botanical, and ethnobotanical information in Northern Khmer and Thai. For instance, a plant called [katiəw] in Northern Khmer is *Trema orientalis* in family Cannabaceae, the hemp family (Ungsitipoonporn 2020a: 30). Translated by Google Translate and edited with native speaker Brad Tin, the Thai explanation of the uses of this plant reads: "First, make charcoal by burning the trunks, then grind and mix with saltpeter [potassium nitrate] to make fireworks and 'da-lay' [traditional plate-shaped rockets]" (30). This is a summary of part of the dialogue.

An "editing process" is mentioned (Phanthaphoommee & Ungsitipoonporn 2023: 577, 579), suggesting the dialogues are not simply transcriptions of the interviews with the elders; but no details are given. The word Grandpa appears eighteen times in one of the volumes of the textbook. When it does, the dialogues evoke the fieldwork methodology that Fadiman and Gobbo adopted in Tanzania: children interviewing their parents and grandparents. At other times, as in the example below, a middle-aged person interviews an elder, suggesting that only elderly people possess traditional knowledge of nature in this community.

The dialogues proceed sentence by sentence. Each sentence is numbered. For example, the first sentence for *Trema orientalis* (Ungsitipoonporn 2020a: 31) is:

Number:	1
Northern Khmer in Thai script:	นึง อันนิฮ กฺี เฮา เดิมฺ อย
Northern Khmer in IPA:[6]	nɨŋ ʔannih kɪɪ haw dʌʌm ʔoj
Thai:	หนึ่ง อันนี้เขาเรียกต้นอะไร
English:	Neung, what do they call this plant?

Neung is an elder, and the interlocutor is a middle-aged lady named Auntie Phaew, where "auntie" does not imply kinship. Here is the entire dialogue in English.[7]

6 IPA: International Phonetic Alphabet.

7 The English in line 1 is a faithful translation of the Thai, so I have not included the full text of the Thai (or the Northern Khmer).

1. Neung, what do they call this plant?
2. This is 'katiiəw,' Auntie Phaew. [sic: it is /katiəw/ above].
3. It looks like 'kak^{h}op.'
4. Well. It looks like 'kak^{h}op.'
5. Plants in our village are always like that.
6. Is it big?
7. It is not too big.
8. It is about your thigh. [sic]
9. Some are about our wrist. [sic]
10. Can it be made into firewood?
11. Yes, it can.
12. Does it have flowers or fruits?
13. Yes, it does.
14. Look at this. Its fruit is quite small.
15. When it ripens … What colour would it be?
16. It will become black.
17. Can it be made into drug?
18. It can't be made into drugs, Auntie Phaew.
19. They take dried wood (dead-wood) …
20. They burn it to make charcoal.
21. After that. They pound it …
22. And mix it with 'k^{h}raam'.
23. In the past …
24. To make gunpowder.
25. Like gunpowder and explosive powder.
26. Just like people do today …
27. Firework [sic] that is called 'tlaj'.
28. Isn't it?
29. Yes.

With the references to gunpowder, explosive powder, and fireworks, the authors have managed to "affirm Northern Khmer culture as current rather than stuck in an idealised past" (Phanthaphoommee and Ungsitipoonporn 2023: 561), as they eloquently put it. Further editing, however, might be needed for all of the dialogue to make sense to outsiders, though it may be detailed enough for Northern Khmer speakers to understand, if they know what kak^{h}op (3–4), k^{h}raam (22), and tlaj (27) are; these are Northern Khmer words, not Thai words.

Not surprisingly, given that Ungsitipoonporn's colleague Narongdej Phanthaphoommee is a translation scholar, the article about the Thai conversation textbooks includes a much more in-depth consideration of the motivation for translation and

the role translators played in the project. Phanthaphoommee and Ungsitipoonporn review the translation studies literature on minority translation focusing on recent trends in translation for language revitalization (2023: 562–564). They claim that "translation can play a crucial role in preserving indigenous knowledge and revitalising local dialects, making it one of the most effective tools for motivating language preservation initiatives" (561). Examples of such tools that are produced partly through translation include glossaries, dictionaries, and language textbooks.

Concerning which direction to translate into, Phanthaphoommee and Ungsitipoonporn explain why in their case the direction of translation was "centrifugal," from Northern Khmer to Thai and then to English. Such translation might "garner awareness of the local traditions and wisdom associated with the tongue" (564). It would also "normalise" the textual use of Northern Khmer in a country that is Thai-dominated (560).

While Fadiman and Gobbo did not even mention translators, only "working with the translation," Phanthaphoommee and Ungsitipoonporn devote fully half of their article to the translators and their translations. Two translators took part in the project. One, who took a minor in Khmer in university, translated from Northern Khmer into Thai. The other, who had a degree in English language and literature, translated from Thai into English. Both were outsiders to the community, recent university graduates, and volunteers. This is to say they were novice translators. Neither had a background in either botany or ethnobotany, either. It is therefore not surprising to read that one of the translators was "terrified of using the incorrect botanical term as I was of using the incorrect cultural term" (579). Phanthaphoommee and Ungsitipoonporn discuss such reflections in terms of a new trend in translator studies, translator's agency, where "translators and other relevant stakeholders can perform as agents of change at the community and, hopefully, national level" (584). They cite Koskinen and Kuusi on the minority translator's agency (2017; cited by Phanthaphoommee & Ungsitipoonporn 2023: 563). An important difference is that the translators who participated in Ungsitipoonporn project were outsiders; it might be worthwhile to try getting insiders to translate in a future project.

As for the translators' translations, Phanthaphoommee and Ungsitipoonporn discuss them in terms of "translation solutions" to a particular type of problem: culture-specific items (CSIs). The study of CSIs has a long history in translation studies (567–568). Phanthaphoommee and Ungsitipoonporn could have mentioned that translation-solution typologies have been developed largely for pedagogical purposes. As a recent study of translation solutions for Chinese-English translation puts it, "When students are first taught to translate, they usually benefit from a list of the ways translation problems can be solved" (Pym et al. 2020: 1). Phanthaphoommee and Ungsitipoonporn cite a number of examples of CSIs in the fields of traditional medicine and botanical description. In my discussion of the Taiwanese case below, I

find that the biggest challenge in translation was botanical description, but in the opposite direction: from the national language into the Indigenous minority language.

2.3 Taiwan

With funding from a local government agency – the Indigenous Peoples Bureau, Nantou County in central Formosa (the main island of Taiwan) – a team of eight contributors, many of whom worked at the Sediq Language Research and Development Office in the town of Puli, compiled a bilingual book of ethnic plants, in their ancestral language, the Formosan Austronesian Indigenous language Sediq, and Mandarin Chinese, the dominant language in Taiwan. Kumu Tapas, one of the eight contributors, wrote an article about the book. In it she describes the traditional ecological context of the Sediq people as follows. The Sediq live among:

> towering mountain peaks and meandering streams, which form an extremely rich geographical landscape, ranging from 500 m to 3,605 m above sea level. Due to its superior natural environment, the flora and fauna include species typically found in tropical and temperate rainforests. The abundant rainfall, high humidity, and optimal climate are all suitable conditions for the reproduction of animals and plants, so there are plenty of species. This rich ecological environment provides people of all ethnic groups with abundant resources for hunting and gathering as well as fishing and farming. (Tapas 2020: 41)[8]

Traditionally, the Sediq grew rice and millet and kept swine and cattle close to their villages, which were located in river valleys. The abundant resources for hunting and gathering were in the forest. Kumu Tapas's description may seem surprisingly technical. With references to tropical and temperate rainforests, it is a distinctly modern perspective on Sediqland. Yet it is definitely a local's perspective. Many of her neighbors are farmers and hunters, dependent on the land for their livelihood. They are more concerned with making ends meet than they are with sustainability. Kumu Tapas is not worried about "forest destruction." She sounds extremely proud of her homeland. She is also proud of her tradition: "The ancestors' knowledge of mountain forest plants comes from practical life experience, so their understanding of plants is extensive and sophisticated" (42).[9]

Kumu Tapas explains the motivations behind the project as follows:

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8 Sediq names are given name followed by patronym. Tapas is not a surname; it is her father's given name.

9 Kumu Tapas, as a Presbyterian pastor, is prouder of some aspects of tradition than others. She describes certain hunting practices as "superstitions," for instance (Tapas 2020: 44).

> The contributors would like to … study existing plant resources in the area and systematically reconstruct the related traditional knowledge. In this way, instead of this important cultural and ecological knowledge getting lost, Sediq people, as well as others, can learn more about the plants and continue to use them. (2020: 39)

In an interview I conducted on 17 November 2022, Uya Pawan, one of the eight contributors, mentioned wishing to record the plant knowledge of Sediq elders before they passed away, so that it could be incorporated into textbooks and passed down to the younger generation.

Another unspoken reason for concern was that Sediq was (and is) literally a mother tongue; in another decade it will literally be a grandmother tongue. Its endangerment relates to the purpose of the funding that Kumu Tapas, Uya Pawan, and the others received for the project. The funding was for "language development," particularly through Sediq's "literation," as the director of the Indigenous People's Bureau of Nantou County Government explains in his forward to the book (Zhang 2017: 5). By literation he meant writing down texts in Sediq. Kumu Tapas offered her whole-hearted support for literation: "The book is written in Sediq and Chinese, and supports the painstaking efforts of the government to literalise and advance Taiwan's indigenous languages" (Tapas 2020: 39). The attitude of gratitude is palpable and also surprising when arguably the government is partly responsible for the endangerment of Taiwan's Indigenous languages and cultures.[10]

The contributors were: Iwan Pering (♀), Dakis Pawan (♂), Aking Nawi (♀), Temi Puhuk (♀), Pawan Tanah (♂), Lituk Teymu (♂), Uya Pawan (♀), and Kumu Tapas (♀) (Tapas 2020: 42, Iwan Pering et al. 2017: 6). All were in their 50s and 60s at the time. Many of them arguably belonged to a Sediq social elite. Iwan Pering and Kumu Tapas held master's degrees, Iwan Pering in anthropology and Kumu Tapas in theology. Dakis Pawan, Aking Nawi, and Temi Puhuk were teachers. Pawan Tanah and Lituk Teymu were elementary-school principals. Uya Pawan had been a high-ranking central government official. The contributors self-identified as "specialists of tribal culture and language" (Tapas 2020: 39). As such, they were relatively fluent in Sediq and conversant in traditional culture. Besides Uya Pawan, none of them was considered a local plant expert, and even Uya Pawan had things to learn from elders. So the contributors consulted 19 "informants," all identified by name (Iwan Pering et al. 2017: 15). Three of the informants were deceased in 2017. Either the specialists were asking the informants' children or consulting published ethnobotanies such as that of Zhang (2003; cited by Iwan Pering et al. 2017: 228), who identified these elders as informants. The other 16 informants were alive. The specialists visited the 16 living informants at

10 Taiwan's government instituted a monolingual national language policy under martial law from 1949 to 1987. Over the past three decades, it has embraced multilingualism, with more and more support for Indigenous minority languages.

their homes and asked them about "ethnic plants" (Iwan Pering et al. 2017: 13). I asked Uya Pawan whether any of the informants in his village had taken him on a "plant walk and talk." He said the informants were just too old to go out. So he conducted an ethnic plant inventory, a methodology that his teacher, the noted Taiwanese ethnobotanist Yen Hsin-Fu, had taught him, by showing the informants photographs of local plants and asking them how the plants were used.

No mention was made of any resistance by the elderly informants to sharing traditional knowledge. They would once have been resistant. The last essay in the book, on a species of economically valuable fig, states that, "Each woman had her own regular collection site in the mountains, like a secret base, and she would never casually divulge it to others" (Iwan Pering et al. 2017: 222–223, my translation). But such elders are now too old to tend or gather such plants. An anecdote from my fieldwork illustrates the contemporary situation in this respect. I signed up for a course in the spinning of ramie yarn, which was women's work traditionally. In September 2022, before the course started, I asked Iwan Pering, one of the contributors to *Tgdaya/Truku/Toda Ethnobotany*, why was I allowed to take the course, given that I was a man. She replied that elders are now aware that their knowledge might die with them if they do not share it in time. And so they are sharing it with men, and with outsiders.

The last page of *Tgdaya/Truku/Toda Ethnobotany* (Iwan Pering et al. 2017: 228) is a list of the books the contributors consulted while writing up their results. These include the aforementioned study by Zhang (2003). They also include a Chinese-language popular science book about ethnobotany in Taiwan, including Indigenous ethnobotany (Zhong and Yang 2012). This book divides the text of each entry into paragraphs, at least one paragraph of morphological description and another paragraph of ethnobotanical description. For instance, the entry on *Ficus pumila* L. var. *awkeotsang* (Zhong and Yang 2012: 402–403), the economically valuable fig I mentioned above, starts with the observation that it is a large climbing liana – a woody vine – with branches that are glabrous – hairless. Only after a detailed morphological description does it divulge the ethnobotanical uses of the plant. This book was a model for the contributors when they wrote up their results. It gave them an idea of what an ethnobotany should be. They were not, however, naïve imitators. They could understand the point of such a botanical description in an ethnobotanical work. To appreciate ethnobotany, readers need to be able to identify a plant first. Young Sediq readers of *Tgdaya/Truku/Toda Ethnobotany* might be unable to do so. As the essay on soapberry puts it, "modern youngsters do not know this plant" (Iwan Pering et al. 2017: 139).

After conducting the interviews and reviewing the literature, the contributors wrote up short essays of approximately 190 words each. Each entry is illustrated with botanical and ethnobotanical photographs taken by the contributors. Each entry

begins with the name of the plant in the dialect in which the essay is written, the name in the other two dialects, the Chinese name, the scientific name, the part(s) used, and the ethnobotanical category. The main text follows. The Sediq text is presented on the verso page, the Chinese text on the recto page. An example is the entry on mulberry mistletoe, *Taxillus sinensis* (Iwan Pering et al. 2017: 206–207). For ease of comparison, the text has been rearranged sentence by sentence with an English translation of the Sediq and another English translation of the Chinese.

1. Uruy ge, tndheran meeniq dheran meebun truma. Qhuni llebu msderux, egu hnreyan ccida, rqeling ma puto ka cida na peni.
桑寄生見於低海拔地區。是攀緣性灌木，直立而多分枝，枝條卻短。
[Sediq: Uruy exists in low land. It is an erect small tree with a lot of branches growing, and the branches are thin and short.]
[Chinese: Mulberry mistletoe is seen in low-altitude areas. It is a climbing shrub that is upright with many branches, but the branches are short.]

2. Mbhege madis mgqalux tikuh mbqbulic rako peni.
幼株銀褐色，葉背色灰如生銹。
[Sediq: The color is white or gray with a bit of black.]
[Chinese: The young plants have a silver-brown color; the adaxial surfaces of the leaves are a rusty gray.]

3. Saadux mgbalung, ma ini kdayang qtaan, mntena so ka pncyukan balung mtumun ka hnyegan na, ma so qumi mcciyuk, ma niqan so mgdoriq eyux qnddoriq qtaan ka hnyegan na duri.
狀如卵形，厚革質而無光澤，倒卵至倒披針形，或橢圓至狹橢圓形。
[Sediq: Hard and like an egg, but with no visible luster, the body shape [of each leaf] is the same as an upsidedown roundish egg, or upsidedown needle, or its body shape also looks like a narrow eye.]
[Chinese: [The leaves are] ovate, leathery in texture, without luster, ranging from obovate to oblanceolate or elliptical to narrowly elliptical in shape.]

4. Misan ka mphepah, tqgilaq mbhege betaq mgceyas, tnpupu ka kndkilan na.
冬天花色銀白至淡黃色簇生。
[Sediq: In winter, it flowers, from white to yellow, and its growth is in clusters.]
[Chinese: In winter, the flower color is silver-white to pale yellow, and [the flowers] grow in clusters.]

5. Dehuk mkkawas da mgbalung ttaan ka hei na kiya. Mhada ba de mgmudu qtaan ka knttanah na denu kii di.

隔年春夏果子卵形，成熟成誘人的橘紅色。
[Sediq: The following year, the fruits look egg-like, and when mature [they] look reddish like tangerines.]
[Chinese: The following spring and summer, the fruits are egg-shaped and mature into a tempting tangerine-red color.]

6. Mpmepang madis tikuh ssibus puqun ka hei na nii. Kuxul ba pskanun lqlaqi, so ka eekan hlama pskanun peni. Pseengal lqlaqi spggeluq kkui, kana so ka mpskiya, ma ga mkkesa, mkkaro duri, ngngalan lqlaqi.
果子酸澀含甜，為含在口中嚼如現代泡泡糖，嚼後於活動中黏住欲飛行、爬行或攀爬中的小昆蟲。
[Sediq: Its fruits taste tart and a bit sweet. Children love chewing it, like chewing a sticky, chewy rice or millet cake. They stick bugs with it; any [bug] that is about to fly, walk, or climb will be caught by children.]
[Chinese: The fruits are sour, tart, and sweet. When chewed, they become sticky in the mouth, like modern bubble gum. After chewing, [the wad] can stick-fast small insects that are flying, crawling, or climbing.]

7. Msdurak nanaq ka dheya duri mppqapah tunux ma snuunux, hei daha ma lklukus daha duri. Kiya ka wada pnqapah di ge, irih so wada ini baka da!
又於追逐中相互黏貼，誰若黏到頭或頭髮，或身體，被黏到誰就是就輸。
[Sediq: While chasing one another, they can stick [it] to their heads or hair, their bodies or clothes. For the one who's gotten stuck, it means that he's not good enough.]
[Chinese: They can also stick [it] to each other during a chase. If someone's head, hair, or body gets stuck, they lose the game.]

8. Kela naq so nii pslhayan psriko hei tthiqan na ka lqlaqi peni.
是孩童訓練身體敏捷的有趣童玩。
[Sediq: Turns out [it] increases body swiftness when played by children.]
[Chinese: [It] is a fun game for children that helps train their agility.]

The essay clearly divides into a botanical part (1–5) and an ethnobotanical part (6–8). Often, as here, the botanical part is over half the essay. Moreover, the botanical part often contains content that a traditional Sediq person would probably not have remarked upon, for instance that the leaves "rang[e] from obovate to oblanceolate or elliptical to narrowly elliptical in shape" (3). Was the botanical part translated from Chinese into Sediq? Suspecting this to be the case, I asked Uya Pawan during our interview. He explained that "Sediq teachers" translate Sediq to Chinese when they draw up teaching materials, and not the other way around, lest Chinese influence Sediq. But when later in the interview I asked him what if anything was particularly

difficult to translate, he said, "What's difficult for me now is the specialized terms for plants in the two languages, for example, the 'corolla' of a flower, or a flower bud, or male or female, the stamens and pistils." He would have no problem expressing these concepts in Chinese. Indeed, he learned them in Chinese. The difficulty was translating such concepts from Chinese into Sediq in the essays he wrote for this book.

In the essay on mulberry mistletoe, 88 of 161 words in Sediq are devoted to botanical description. While the Sediq is not a perfectly reliable translation – the seasons in line 5 of the essay above are not translated, for instance – it is reliable enough to be a rich storehouse for botanical terminology. This essay alone yielded the following seven terms in Sediq:

1. *qhuni llebu*, a low tree, a translation of "shrub."
2. *saadux*, thick, a translation of "leathery."
3. *mgbalung*, like an egg, a translation of "ovate."
4. *pncyukan balung mtumun*, a roundish upsidedown egg, a translation of "obovate."
5. *qumi mcciyuk*, a reversed needle, a translation of "oblanceolate."
6. *mgdoriq eyux*, narrow and like an eye, a translation of "narrowly elliptical."
7. *tnpupu ka kndkilan na*, its growth is in bunches, a translation of "clusters."

Given Michael Cronin's concern about minority languages "succumb[ing] at lexical and syntactic levels" (2003: 141), we might wonder whether that the Chinese to Sediq translations of terms in morphological descriptions are translationese. The last line of the editorial preface sets out the translation policy, to translate sense for sense not word for word, in order to avoid translationese in either direction (Iwan Pering et al. 2017: 17). That is not always what the translators did. In *qumi mcciyuk* above, *qumi* means "needle" and comes from the Chinese for oblanceolate, 倒披針形 *dàopīzhēnxíng*, where 針 *zhēn* means "needle." It can be just as hard to avoid word-for-word translation throughout as it is to translate literally in every instance. In general, a certain degree of literalness does not result in translationese. As far as I can tell, the contributors have avoided translationese. And they have enriched their language with botanical terminology.

They have also shared Sediq knowledge of plants with Chinese readers. 73 of 161 words in the essay about mulberry mistletoe are ethnobotanical, roughly the second half. While almost all of the essays begin with a botanical part, which can take up over half the wordcount, in the following ethnobotanical part the autoethnobotanists chose content based on category (Tapas 2020: 42). This particular essay is about a plant in the children's toys and games category, so it describes a game: children once chewed the fruit of mulberry mistletoe into a chewy cud that could be used to catch insects. The description of the game contains what seems like the only CSI (culture-specific item) in this particular essay, *hlama* in line 6. *Hlama* is typically a chewy cake of millet or rice, particularly sticky rice. Sediq people used to take it with them in

their lunchboxes, whether they were off to plant, gather, or hunt. In the Sediq to Chinese translation, the translator compares it to "modern bubble gum." This would count as a domesticating translation in Lawrence Venuti's terms (1995: 38), in that it offers something familiar to the Chinese reader instead of an explanation of *hlama*. An explanatory translation like mine – "a chewy cake of millet or rice" – would be a foreignized translation (Venuti 1995: 38), or a thick translation (Appiah 2000). Why did the translators not offer such an explanation in this case? *Hlama* has been generalized in contemporary Sediq to mean treats in general, particularly sticky ones (for instance Iwan Pering et al. 2017: 179), so the specific meaning is irrelevant in the present context. In other essays in the volume the specific meaning is explained, as in the essay on millet (Iwan Pering et al. 2017: 22–23). My intention here is not to analyze the translation of CSIs in the entire book, as Phanthaphoommee and Ungsitipoonporn did for the conversation textbook (2023: 572–577). It is rather to suggest that if allowed to work independently, autoethnobotanists should tend to record and translate interesting ethnobotanical information. They will probably find different ways, often engaging and witty, of translating CSIs; if a term is really a cultural keyword it will appear more than once.

One finding of Phanthaphoommee and Ungsitipoonporn that is relevant in this regard was that neither of the translators omitted anything: "Unsurprisingly, no translator selected the strategy of omission since it is contrary to the objective of this project" (2023: 572). Both translators, who were cultural outsiders, accepted the task set by their supervisor Ungsitipoonporn, to convey the knowledge in the Northern Khmer original to national and international audiences. One of the Sediq translators, by contrast, acted as a gatekeeper in one of the entries. Two ethnobotanical passages were barely translated at all in the essay on *Rubus rosifolius*, a kind of raspberry (Iwan Pering et al. 2017: 36–37). First: *Gmalu bi sqqeuqun rsnaw hii na ka ni, ini kbiyax msur ka bowli utas bi mspi utaq, sahu utux anay bi snagan nmahan*, which is mostly lost in translation; it is "particularly beneficial for men" in Chinese. The Sediq original, however, describes the plant as a Viagra-like solution to erectile disfunction that will allow a man to produce a prodigious quantity of semen. Second: *Wasaw na pskmalu sahu mlabu, pgmalu narux giqur bi narux unuh urat qrjil, ngalan dha miyah psapuh*, which refers to a treatment for breast tenderness, and which is bowdlerized into "treatment" in Chinese. Perhaps the text was bowdlerized to keep the text kids-appropriate. Or perhaps it can be explained in terms of ethnic image management. At any rate, while the Sediq informants showed no resistance to having their knowledge recorded, in one instance, one of the autoethnobotanists resisted translating it.

The Sediq autoethnobotanists produced a work that seems distinctly hybrid in terms of its relationship to culturally specific knowledge-systems. As in the Thai case, they "affirm [Sediq culture] as current rather than stuck in an idealised past" (Phanthaphoommee and Ungsitipoonporn 2023: 561). But they do this to a much

greater extent. Recipes for *hlama* (Iwan Pering et al. 2017: 22–23) and other dishes are included, but with appeals to modern nutritional science. Nutritiousness is mentioned half a dozen times and translated into *skbiyax hiyi* (to strengthen the body), *pkmalu hei* (to make the body better), or *niqan ririh* (has value). The essay on soapberry (138–139) claims that soap made from the berries of this kind of tree does not cause cancer or pollute the environment. The essay on Wusheh cherry (52–53) notes that it is critically endangered according to the Council of Agriculture. The plants in the "industry" section (212–223) are not even traditional; they include cash crops such as lemongrass, cassava, plums, and shiitake mushrooms that the Sediq only planted in the second half of the twentieth century, often with government guidance. The wood of a half dozen trees is described in terms of how many years it can be used to grow mushrooms. Many Indigenous people supported themselves by growing mushrooms, including Uya Pawan's parents. In this way, the book is among other things a fascinating social history of the Sediq from precolonial times to the present day.

3 Conclusion

So how did the backgrounds of the authors – as cultural outsiders or insiders – condition the form and content of the (auto)ethnobotanical books? And what approach to authorship might be most effective for achieving the intended aims of the (auto)ethnobotanists? Fadiman and Gobbo, as ethnobotanists with funding for environmental conservation, compiled a pair of trilingual booklets containing basic ethnobotanical information, justifying them as a response to a threat to ecological diversity, not just cultural or linguistic diversity. Ungsitipoonporn, a linguist with funding from a development agency, produced a trilingual conversation textbook, which makes sense given her conviction that translators can help revitalize languages. In both cases, knowledge was recorded in the local language to preserve it and translated into the national language and English to raise awareness. As specialists in Sediq language and culture who had funding for the development of their language through its literation, Iwan Pering and her peers translated in both directions, developing Sediq with botanical terminology and disclosing traditional knowledge of plants, as well as the ways in which the Sediq have adapted to colonial modernity, to Chinese readers, including Sediq young people who are learning to read their ancestral language.[11] They did so without translationese. Their book is not

11 This is not to say that bidirectional translation in a book like this is a necessary condition for language development. To some extent, both the Tanzanian and Thai books dealt with the paraphernalia of modern life, from nails to fireworks. Simply by using their language to describe their

just informative but also engaging and witty. Any case of compilation and translation is overdetermined, so that we cannot expect that other (auto)ethnobotanists would compile the same kinds of multilingual books. But given that the "insider approach" worked in this case of multilingual autoethnobotany, it might work in others. Letting cultural insiders, particularly elites, who are likely to be biliterate and bicultural and therefore best able to handle the challenges of translation into and out of the ancestral language, has been successful in the Sediq case; it seems worth testing out in other cases.

What might the limits be of the insider approach? Insiders can still benefit from expert allies like Fadiman, Gobbo, Phanthaphoommee, and Ungsitipoonporn. Expert allies can propose projects based on their specializations, like the mini-herbarium that Fadiman and Gobbo set up in Mwamgongo, Tanzania. Expert allies know how to apply to international conservation or development agencies with an environmental, cultural, or linguistic remit, justifying the project to those funding agencies and to intended readers in terms of environmental, cultural, or linguistic alienation, diversity, or sustainability. Given Fadiman and Gobbo's emphasis on ecological conservation, the leaders of other projects might consider relating what they are doing to environmental issues. Expert allies are better able to supervise the translation into English, and here they would be well advised to enhance oversight. As it stands, the English translations in the Tanzanian and Thai books were not done with outsiders in mind.

In all three cases, the compilers or translators can consider making the work more widely available. Although the Tanzanian booklets were partly intended to raise community "visibility" (Fadiman and Gobbo 2022: 203), they are nonetheless "solely for the villagers and locals in the surrounding area," write Fadiman and Gobbo (2020). "As the information is theirs, any further sharing of the product is at the locals' discretion." Fadiman and Gobbo did not provide contact information for any villagers or locals. To get an electronic copy of the Thai textbook, one would have to try writing to Narongdej Phanthaphoommee and Siripen Ungsitipoonporn. Even though Kumu Tapas wrote that the contributors looked forward to "having more people work with them" (2020: 39), the Sediq book is only available in the Sediq Language Research and Development Office. It is of course essential to respect the privacy and intellectual property of people in Indigenous minority communities, but perhaps an attempt can be made to encourage them to strike a slightly different balance between privacy and availability for the sake of linguistic, cultural, and environmental conservation and development.

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contemporary situations, Kiha and Northern Khmer speakers will develop Kiha and Northern Khmer. But translation can supercharge language development.

At the end of their chapter, Fadiman and Gobbo write, "In looking at long term retention and keeping both the ecological and language information alive, at this point we cannot say" (2022: 216). They propose working with linguists to produce talking dictionaries. In all three cases, audio recordings would be a valuable addition from the perspective of language learning. Phanthaphoommee and Ungsitipoonporn hope that teachers will find the textbook useful (2023: 585). They could see if teachers do in fact use the textbook, whether in the classroom or in the forest, to help Northern Khmer youngsters reconnect with their ancestral language and culture of living off the land. They propose not just audio recordings but video recordings of conversations about ethnic plants, and computer programs. These are excellent ideas for stakeholders in all three countries to develop. Follow-up studies are obviously in order.

If a book sits on a bookshelf, gathering dust, it can have no effect. If someone reads it, it might well save a forest, as Fadiman and Gobbo put it (2020). It might save a culture and a language, too. Only time will tell.

References

Aixelá, Javier Franco. 1996. Culture-specific items in translation. *Translation, power, subversion*, 52–78. Clevedon: Multilingual Matters.

Al-Masri, Hanada. 2009. Translation and cultural equivalence: A study of translation losses in Arabic literary texts. *Journal of Language and Translation* 10(1). 7–44.

Al-Masri, Hanada. 2017. The influence of the translator's linguistic/cultural background on cultural equivalence. *Linguistics Applied* 6. 11–24.

Appiah, Kwame Anthony. 2000. Thick translation. *The translation studies reader*, 1st edn. 417–429. London: Routledge.

Bennett, Karen. 2012. At the selvedges of discourse: Negotiating the "in-between" in translation studies. *Word and Text* 2(2). 43–61.

Cronin, Michael A. 2000. *Across the lines: Travel, language, translation*. Cork: Cork University Press.

Cronin, Michael A. 2003. *Translation and globalization*. Abingdon: Routledge.

Cronin, Michael A. 2017. *Eco-translation: Translation and ecology in the age of the Anthropocene*. Abingdon: Routledge.

Fadiman, Maria & Grace Gobbo. 2020. Can making a book conserve a forest? Bubango, Tanzania. *Focus on Geography*. http://www.focusongeography.org/publications/photoessays/tanzania/index.html.

Fadiman, Maria & Grace Gobbo. 2022. What role does language play in conserving forests and culture? Multi-Lingual ethnobotanical booklets in the African savanna. *New directions in linguistic geography*, 197–220. Singapore: Springer.

gov.uk. 2019. Policy paper: Newton Fund: Building science and innovation capacity in partner countries. https://www.gov.uk/government/publications/newton-fund-building-science-and-innovation-capacity-in-developing-countries/newton-fund-building-science-and-innovation-capacity-in-developing-countries.

Grutman, Rainier. 2020. Self-translation. *The Routledge encyclopedia of translation*, 3rd edn. 514–518. London: Routledge.

Iwan Pering, Dakis Pawan, Aking Nawi, Temi Puhuk, Pawan Tanah, Lituk Teymu, Uya Pawan & Kumu Tapas. 2017. *Tgdaya/Truku/Toda Ethnobotany (*賽德克族民族植物*)*. Nantou: Nantou County Government.

Jakobson, Roman. 2000 [1959]. On linguistic aspects of translation. *The translation studies reader*, 1st edn. 113–118. London: Routledge.

Koskinen, Kaisa & Päivi Kuusi. 2017. Translator training for language activists: Agency and empowerment of minority language translators. *Trans-Kom: Journal of Translation and Technical Communication Research* 10(2). 188–213.

Kuusi, Päivi, Leena Kolehmainen & Helka Riionheimo. 2017. Introduction: Multiple roles of translation in the context of minority languages and revitalisation. *Trans-Kom: Journal of Translation and Technical Communication Research* 10(2). 138–163.

Kuusi, Päivi, Helka Riionheimo & Leena Kolehmainen. 2022. Translating into an endangered language: Filling in lexical gaps as language making. *International Journal of the Sociology of Language* 274. 133–160.

Louv, Richard. 2008. *Last child in the woods: Saving our children from nature-deficit disorder*. Chapel Hill: Algonquin.

Marais, Kobus. 2014. *Translation theory and development studies: A complexity theory approach*. New York: Routledge.

Marais, Kobus. 2018. Introduction: Translation and development. *The Translator* 24(4). 295–300.

Marais, Kobus & Marija Todorova. 2022. A translational approach to inclusive development. *Linguistica Antverpiensia, New series – Themes in translation studies* 21. 1–18.

Phanthaphoommee, Narongdej & Siripen Ungsitipoonporn. 2023. Translation for language revitalisation: Efforts and challenges in documenting botanical knowledge of Thailand's Northern Khmer speakers. *Multilingua* 42(4). 559–588.

Pym, Anthony, Bei Hu, Hao Yu & Ke Hu. 2020. A typology of translation solutions for Chinese-English. *Unpublished Manuscript* 1–8. https://doi.org/10.13140/RG.2.2.10890.95680.

St. Andre, James. 2020. Relay. *Routledge encyclopedia of translation studies*, 3rd edn. 470–473. London: Routledge.

Tapas, Kumu. 2020. A preliminary study on the ethnic plants of the Sediq people. *Senri Ethnological Studies* 103. 39–47.

Toury, Gideon. 1985. Aspects of translating into minority languages from the point of view of translation studies. *Multilingua* 4(1). 3–10.

Ungsitipoonporn, Siripen, Candide Simard & Julia Sallabank. 2022. Plant recognition by Northern Khmer children in Ban Khanat Pring and Ban Ramboe villages, Surin Province, Thailand. *South East Asia Research* 30(2). 180–201.

Ungsitipoonporn, Siripen. 2020a & 2020b. *Digital documentation of the botanical knowledge of Northern Khmer speakers: Linguists, botanists, and community members working together*. Bangkok: Asian Language and Culture Research Institute, Mahidol University.

Venuti, Lawrence. 1995. *The translator's invisibility: A history of translation*. London: Routledge.

Zhang, Wenzhao. 2003. *Study on the Ethnobotany of Seediq Atayal in Nantou (*南投縣泰雅族賽德克亞族民族植物之研究*)*. Taipei: National Taiwan University.

Zhang, Zixiao. 2017. Bureau director's preface (局長序). *Tgdaya/Truku/Toda Ethnobotany (*賽德克族民族植物*)* 5.

Zhong, Mingzhe & Zhikai Yang. 2012. *An ethnobotanical memory of Taiwan (*台灣民族植物圖鑑*)*. Taizhong: Chenxing (晨星).