

# Cross-cultural messaging: evaluating the consistency of climate change communication post-translation

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**Abstract.** This study investigates cross-cultural message consistency in climate change communication by evaluating the translation techniques used in environmental campaigns translated from English to Japanese. Using a qualitative approach, this study analyzes the translated environmental campaign materials, focusing on the identification and analysis of translation techniques used to translate messages or slogans. The analysis draws on an existing taxonomy of translation techniques to categorize and examine the strategies used by translators. The findings show that calque (kalki) is the most frequently used translation technique, followed by modulation. This indicates a tendency to prioritize closeness to the meaning and structure of the source text as well as ensuring naturalness in the target language. Other techniques, such as transposition, amplification and adaptation, were used less frequently. This study contributes to the understanding of cross-cultural messages in environmental campaigns and highlights the importance of translators' decisions in maintaining consistency of messages across languages and cultures.

## 1 Introduction

Intercultural translation is crucial in delivering messages, especially in environmental campaigns. Environmental campaigns are often orchestrated by the Worldwide Fund for Nature (WWF), a global conservation organization engaged in the environment, especially protecting wildlife and the environment [1-3]. In disseminating its campaigns, WWF representatives in various countries often translate environmental messages written in English. Along with the increasing level of public awareness of environmental protection, various Non-Governmental Organizations (NGOs) have also participated creatively to come up with ideas for nature conservation campaigns through their campaigns. To translate environmental-themed messages, an appropriate translation strategy is needed so as not to reduce the essence of the message conveyed. In this regard, the translator has an extra task besides translating, which is to bridge the translation results with the cultural background of the target text readers.

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Research on environmental campaign translation is important to improve the effectiveness of environmental campaigns globally and provide valuable insights into cross-cultural communication. This research specifically addresses the translation of environmental campaigns from English into Japanese. This is important given that Japan is one of the largest economies in the world and has a significant influence on global issues, including environmental issues. The success of environmental campaigns in Japan can have a broad positive impact on environmental conservation efforts globally. In addition, there are significant differences between English and Japanese, both in terms of language structure, writing system, and cultural norms. These differences can pose challenges in accurately and effectively translating environmental messages [4-6].

This study aims to analyze the translation strategies of English environmental campaigns that have been translated into Japanese, so as to contribute to the development of better translation practices in the context of environmental campaigns. The findings of this study are expected to help translators to produce more effective translations of environmental campaigns that are easily understood by the Japanese public. In addition, this study is also expected to raise awareness of the importance of considering cultural aspects in the translation process, especially in the context of environmental campaigns that aim to encourage behavior change. Thus, the campaign message can be conveyed appropriately and can mobilize the active participation of Japanese people in environmental conservation efforts. This will ultimately have a positive impact on increasing the effectiveness of environmental campaigns globally.

## 2 Methodology

This research uses a qualitative descriptive analysis method with a pragmatic approach. The analysis focused on the translation strategies used and their impact on the meaning, message, and effectiveness of the campaign in the Japanese cultural context. The theoretical framework used to identify and classify translation strategies is Vinay & Darbelnet's taxonomy [7]. The advantages of Vinay & Darbelnet's taxonomy are that it is systematic, comprehensive, and easy to apply. However, it has the limitation of being too rigid and limited to the consideration of textual functions beyond literal meaning. Despite its limitations, Vinay & Darbelnet's taxonomy remains a valuable tool for analyzing translation strategies and understanding translators' decision-making processes. To address this, the analysis is further informed by Scopus Theory, which emphasizes the purpose of translation. This framework recognizes that translation decisions should be driven by the intended function of the target text in the specific cultural context, thus allowing greater flexibility in achieving communicative goals.

## 3 Result

The data in this study are environmental campaign posters in English or Source Text (ST) that have been translated into Japanese or Target Text (TT). Of the 15 data obtained, 5 pieces of data were reduced because they were considered to have failed in translation because there was no connection of meaning or context between the source text and the target text. It is suspected that there has been an error in the translation process, or the translation is part of an example of intentional translation for the purpose of humor or a failed pun. It was our understanding that the translation was highly inaccurate and could potentially result in a different interpretation of the ST, so we decided to reduce the data.

This study uses certain criteria to declare a translation failure. This is done to ensure that the analysis focuses on the translation process that comes closest to the original message for the purpose of the environmental campaign. A translation is considered a "failure" if it shows

a significant difference in meaning between the source text and the target text, leading to misinterpretation or disconnection from the original message. This includes grammatical errors that alter the core message, inconsistencies in conveying key terms or concepts, ambiguity, and language that is not culturally appropriate for the campaign's purpose. For example, a poster advocating action against climate change with the tagline “Stop Global Warming” translates to “フイヨルドフルーツ” because the poster image features a fjord. This demonstrates an important failure to maintain message consistency and convey environmental messages accurately, as the translation ignores the intended meaning and purpose of the campaign. This criterion is in line with the principles of Scopos Theory, which emphasizes the importance of achieving the intended purpose in the target culture. By excluding translations that did not meet the criteria in this study, the research ensured a focused analysis of examples of successful cross-cultural messages in environmental campaigns. In the end, 10 data points were analyzed. As a sample, we will show the analysis of 5 data to illustrate how the data was analyzed in this study:

1. ST : Turn off the lights, and reverse global warming

TT : 電気を消して（地球温暖化を食い止める）

Analysis: The segmentation in the ST can be divided into two clauses “Turn off the lights” (command/request) and “and reverse global warming” (goal) which is also reflected in the TT. “Turn off the lights” translates into Japanese as ‘電気を消して’ (denki o keshite). At this stage, the calque strategy is used, i.e. “lights” is literally translated into “電気” (denki). In addition, the modulation technique is also used on the verb phrase “turn off” which is changed into a command form to make it more commonly used in Japanese, namely “消して” (keshite - turn off). While “and reverse global warming” was translated into “(地球温暖化を食い止める)” (chikyuu ondanka o kuishimeru). Furthermore, the calque strategy is used to translate “Global warming” into “地球温暖化” (chikyuu ondanka). On the other hand, the modulation technique is used on the verb “reverse” into a more idiomatic Japanese verb phrase, namely “食い止める” (kuishimeru), which means “stop” or “stem”. The translator added parentheses to enclose the phrase “地球温暖化を食い止める.” This was done to emphasize the purpose of the action of turning off the lights and to make the slogan more concise and memorable. This translation uses a combination of calque and modulation strategies. The use of calque on keywords such as “lights” and “global warming” ensures the clarity of the message. The use of modulation on verb phrases (“turn off” and “reverse”) results in a more natural and idiomatic translation in Japanese. The translator managed to produce an accurate, natural and memorable translation in Japanese. The strategies used were effective in conveying the message and appeal of the source text, while keeping in mind the nuances of the target language and culture.

2. ST : Winter, You’ll miss it when it’s gone

TT : 冬、それがなくなったら寂しくなるだろう

Analysis : ST and TT have two main parts separated by a comma. The calque technique used in translating this advertising campaign in the sentence “you’ll miss it when it’s gone” translates to “それがなくなったら寂しくなるだろう” (sore ga nakunattara samishiku naru darou). In addition, the Transposition technique is used because there is a significant change in sentence structure. The passive sentence in English (“it’s gone”) was changed to an active sentence in Japanese (“それがなくなる” - sore ga nakunaru - “it

dissapeared”). The pronoun “it” is replaced with “それ” (sore - “it”) to refer to “winter”. In the modulation technique, the verb “miss” is changed to the adjectival phrase “寂しくなる” (samishiku naru), meaning “sad” or “to miss”. The addition of the particle “だろう” (darou) at the end of the sentence gives a sense of approximation or possibility, which softens the nuances and makes it more like a prediction than a definite statement. This translation shows a combination of calque, transposition, and modulation strategies. The use of transposition to change the sentence structure shows adaptation to more natural Japanese patterns. The use of modulation in word choice (“samishiku naru” and “darou”) successfully conveys the emotional nuance and uncertainty of the source text. The translator managed to produce an accurate and natural translation in Japanese, while maintaining the message and emotional nuances of the source text. The changes in sentence structure and careful word choice show a good understanding of both languages.

3. ST: The sea level is increasing, we are all in danger

TT: 海面が上昇中、私たちは皆、危機にひんしている

Analysis: The ST consists of two independent clauses connected by a comma, namely "Permukaan air laut meningkat" (fact/statement) and "kita semua dalam bahaya" (consequence/warning). Similarly, the TT maintains this division with a comma. The translation of the clause "Permukaan air laut meningkat" is rendered as “海面が上昇中” (kaimen ga joushouchuu). The calque translation technique is used to translate "the sea level" literally into “海面” (kaimen). Modulation is also employed to translate the verb phrase "increasing," which is transformed into the noun phrase “上昇中” (joushouchuu), meaning "rising." The clause "kita semua dalam bahaya" is translated as “私たちは皆、危機にひんしている” (watashitachi wa mina, kiki ni hinshite iru). Calque is used to translate "we" into “私たち” (watashitachi), and "danger" is translated as “危機” (kiki). Additionally, the Amplification technique is used to translate the word “皆” (mina - "all") to emphasize that the danger threatens everyone. Modulation is also used to translate the phrase "in danger," which is transformed into a more idiomatic Japanese verb phrase, “危機にひんしている” (kiki ni hinshite iru), meaning "in crisis." This translation employs a combination of calque, modulation, and amplification strategies. The use of calque on keywords such as "The Sea Level" and "danger" ensures the clarity of the message. The use of modulation on the phrases "increasing" and "in danger" results in a more natural and idiomatic translation in Japanese. The addition of the word “皆” (mina) is an effective amplification strategy to reinforce the message and emphasize the urgency of the situation. The translator successfully produces an accurate, natural, and impactful translation in Japanese. The strategies employed are effective in conveying the message and warning of the source text, while remaining mindful of the nuances of the target language and culture.

4. ST : We are drowning, rescue us from global warming

TT : 私たちは溺れている。私達を地球温暖化から救って。

Analysis: ST consists of two independent clauses separated by a comma to create a dramatic effect. ‘We are drowning’ (emergency statement) and “save us from global warming” (plea/call to action). TT retains this division, but replaces the comma with a full stop to separate the two clauses more emphatically. ‘we are drowning’ is translated

as “私たちは溺れている” (watashitachi wa oborete iru). There are 3 translation techniques used in the translation of this sentence, namely calque, modulation, and addition. The calque technique can be found in the translation of the word ‘we’ which is translated into ‘私たち’ (watashitachi), and ‘drowning’ which is translated into ‘溺れている’ (oborete iru). ‘Rescue us from global warming’ translates to “私達を地球温暖化から救って” (watashitachi o chikyuu ondanka kara sukutte). In addition, ‘global warming’ is translated literally into ‘地球温暖化’ (chikyuu ondanka). The modulation technique is applied to translate the verb phrase ‘rescue us from’ into a more common structure in Japanese, namely ‘～から救って’ (~ kara sukutte), which means ‘rescue us from ~.’ Meanwhile, the addition technique is applied in the translation by adding the particle ‘を’ (o) after ‘私達’ (watashitachi) to mark ‘we’ as the direct object of the verb ‘救って’ (sukutte - rescue). This translation uses a combination of calque and modulation strategies. The use of calque on keywords such as ‘drowning’ and ‘global warming’ maintains the strength and directness of the message. The use of modulation in the phrase ‘rescue us from’ results in a more natural and idiomatic translation in Japanese. The replacement of the comma with a full stop and the addition of the particle ‘を’ (o) show an adjustment to Japanese grammatical conventions and sentence structure. The translator succeeded in producing an accurate, natural and emotional translation in Japanese. The strategies used are effective in conveying the emergency message and call to action of the source text, while taking into account the nuances of the target language and culture.

5. ST: Global Warming. Do your part to change that

TT: 地球温暖化:パンチ? 自分の行いは自分に返ってくる

Analysis: The translation of this campaign is quite free and raises some questions. The ST has two parts separated by a period, namely ‘Global Warming’ (issue/problem) and ‘Do your part to change it’ (call to action). The TT also has two parts separated by a colon and a question mark, namely ‘地球温暖化’ (issue/problem) and ‘パンチ?自分の行いは自分に返ってくる’ (unclear part). ‘Global Warming’ is translated into “地球温暖化” (chikyuu ondanka) by using the calque technique which shows an accurate direct translation. ‘Do your part to change that’ is translated to “パンチ? 自分の行いは自分に返ってくる” (panchi? jibun no okonai wa jibun ni kaette kuru). The use of the word ‘パンチ’ (panchi - ‘punch’) is highly questionable and has no clear equivalent in the source text. This may be due to a translation error, an attempt to attract attention, or a lack of context. In addition, transposition and modulation translation techniques were used on the phrase ‘Do your part to change that’ which was changed to ‘自分の行いは自分に返ってくる’ (jibun no okonai wa jibun ni kaette kuru), which literally means ‘your deeds will come back to you’. This message, while not literally the same, still conveys the idea of individual responsibility towards the environment. This translation is problematic due to the vague and seemingly random use of the word ‘パンチ’ (panchi). The translation of the phrase ‘Do your part to change that’ while not literal, still conveys the message of individual responsibility, but not as strongly and clearly as the source text. Although the message of individual responsibility is still present, the translation is

less successful for several reasons. Most notably, the use of the word ‘パンチ’ (panchi), which means ‘blow’, creates confusion and has no clear relevance to the message about global warming. This seemingly out-of-place word can be better understood by considering the visual accompanying the campaign poster, which depicts clouds shaped like fists. It seems that the translator intended to associate ‘パンチ’ with this image, aiming to give it a strong and urgent tone to spur the audience into action. However, ‘パンチ’ has aggressive connotations that are not ideal for environmental messages and could be misinterpreted. This slogan could be more effective by replacing ‘パンチ’ with a phrase that more clearly conveys a call to action against global warming, such as ‘力を合わせよう’ (chikara o awaseyou), which means ‘Let's join forces.’

To avoid similar translation discrepancies in future environmental campaigns, a multi-pronged approach is recommended. Firstly, provide a comprehensive brief to the translator covering the visual elements, desired tone, target audience and emotional response of the ST. This opens up opportunities for appropriate translation choices that align with the overall campaign message. Secondly, implementing a back translation process can help identify potential misunderstandings early on. In addition, trialling with representatives of the target audience can provide valuable feedback on the clarity and effectiveness of the translated message. Thirdly, translators should be encouraged to prioritise cultural sensitivity and adapt messages to suit the values and understanding of the target audience, potentially going beyond literal translation to find culturally appropriate expressions. Finally, foster close collaboration between campaign creators, translators and cultural consultants. Open communication channels and a shared understanding of the campaign objectives will ensure that the translated messages are aligned with the overall objectives and resonate with the target audience. Based on the above sample analysis, overall, it is found that the calque translation technique is the most frequently used translation technique in various environmental campaign translations. It is followed by modulation translation technique which is almost entirely used by the translators, while transposition, amplification and adaptation translation techniques are found in a very minimal number. In addition, one translation technique was found which was not successfully translated by the translators into ST.

## 4 Discussion

The analysis shows that the calque translation technique dominates the translation process of various environmental campaign slogans. This finding indicates the translators' tendency to prioritise direct and accurate transfer of meaning, especially in key phrases and core messages related to environmental issues. The predominant use of calque can be caused by several factors, such as the desire to maintain the authenticity of the message, avoid ambiguity, and ensure that the message is easily understood by the target audience. This preference for calque potentially stems from the Japanese audience's acceptance of foreign environmental concepts and terminology, as well as the desire to maintain consistency with global campaigns [8-9]. However, this approach is not without its challenges. For example, directly translating the English slogan ‘Save Our Planet’ into ‘惑星を救え’ may sound unnatural and too direct in Japanese, potentially hindering its effectiveness. Although dominated by calque, modulation techniques are also used quite frequently. This shows that the translator not only translates literally, but also pays attention to stylistic aspects and conventions of the target

language. The application of modulation is useful to adjust the message to make it more natural and acceptable in the target language, without sacrificing the original meaning. For example, a slogan that emphasises individual action such as 'Reduce Your Carbon Footprint' can be modulated to emphasise collective responsibility, thus resonating more effectively with Japanese cultural values. This can be done by using phrases such as 'みんなで協力して', meaning 'Let's all cooperate', to promote a sense of shared responsibility in environmental protection. The effective use of modulation reflects the translator's competence in bridging the linguistic and cultural differences between the source and target languages [10-11]. Interestingly, transposition, amplification and adaptation techniques were found with minimal frequency. This finding indicates that the translation of environmental campaigns may have unique characteristics that encourage translators to prefer the literal approach and preserve the original meaning as much as possible. However, this preference for literal translation may not always be the most effective approach for Japanese audiences. For example, slogans that rely on humour or cultural references specific to Western contexts may require adaptation to suit Japanese cultural values and understanding. The translation failure in one of the samples demonstrates the complexity of the translation process, especially with creative texts such as slogans. Limited understanding of cultural context, implied messages and wordplay can be an obstacle in producing accurate and effective translations. Therefore, it is important for translators to have in-depth knowledge of these environmental issues [12-13].

The lack of use of transposition, amplification and adaptation techniques in the analysed translations warrants further discussion. Although these strategies are effective for adapting to local norms, their limited presence in the context can be attributed to several factors. Firstly, the environmental campaigns studied mainly aim to raise awareness of global issues and promote universally relevant actions. Therefore, maintaining a consistent message across cultures may be prioritised to ensure clarity and avoid potential cultural bias. This approach is in line with the concept of 'foreignisation,' where preserving elements of the source culture can introduce new perspectives and maintain the authenticity of the message.

Although adaptation can enhance cultural relevance, excessive use can lead to inaccuracies or misinterpretations of the original message. Translators may choose to adapt minimally to avoid distorting the scientific basis of the campaign or perpetuating cultural stereotypes. Further analysis of specific text segments reveals that the slogan "Winter, you'll miss it when it's gone," translated as "冬、それがなくなったら寂しくなるだろう," exemplifies this approach. While grammatically accurate, the translation retains a slightly different, more abstract tone than the original English, potentially lessening its emotional impact on a Japanese audience more accustomed to subtle and indirect communication styles. A more culturally influential adaptation might evoke a sense of longing for the disappearing beauty of winter or traditions associated with it. This suggests that while adaptation can be beneficial, its absence does not necessarily equate to ineffective communication. It is plausible that the minimal use of transposition, amplification, and adaptation in this context is a deliberate choice driven by campaign goals and a preference for maintaining message consistency and accuracy. However, further research exploring the potential impact of these strategies on audience engagement and campaign effectiveness within the specific cultural context of Japan would be highly valuable.

One successful example of an environmental campaign in Japan is the "Mottainai" campaign. Launched in the early 2000s, the campaign promotes the traditional Japanese value of cherishing resources and avoiding waste. The term "Mottainai" itself expresses a sense of regret for wasting something valuable. The success of this campaign can be attributed to several factors. First, it cleverly leveraged a deeply ingrained cultural value, making the message easily relatable and understandable to the Japanese public. Second, the campaign

utilized various channels, including public service announcements, educational programs in schools, and collaborations with companies, to disseminate the message widely. The impact of the "Mottainai" campaign has been significant. It is credited with raising awareness about environmental issues and promoting sustainable practices in Japan.

It is crucial to acknowledge the specific cultural context in which translated environmental messages are received and interpreted by a Japanese audience. Japanese cultural values emphasizing harmony (*wa*) and a deep respect for nature (*shizen*) can foster receptivity to messages promoting harmonious coexistence with nature and collective responsibility towards environmental preservation. However, cultural norms valuing humility and non-confrontational communication styles necessitate careful consideration when framing persuasive or emotionally charged environmental campaigns. The influence of group dynamics and trust in authority within Japanese society should also be factored into understanding public perception and response to environmental issues. Furthermore, the linguistic nuances of Japanese, particularly its emphasis on politeness and formality, underscore the importance of adapting the tone and style of translated campaigns to resonate with the target audience. Examining successful environmental campaigns in Japan, alongside insights from studies on Japanese environmental perceptions and behaviors, can provide valuable context and support the argument for culturally-sensitive translation strategies.

Translation failures in environmental campaigns, often stemming from insufficient cultural understanding and a lack of creative adaptation, can have detrimental effects. For instance, a campaign promoting reusable bags with a slogan directly translated from English, without considering Japanese cultural preferences, might be perceived as overly direct or even insensitive, thereby diminishing its effectiveness. While quantifying the prevalence of such failures is challenging, factors like significant cultural and linguistic differences, inadequate translator expertise, and limited resources can increase the risk. A recurring pattern is the difficulty in conveying technical terms and abstract concepts, highlighting the need for translators to possess specialized knowledge in environmental science. Furthermore, adapting humor or cultural references requires a nuanced understanding of the target audience's values and sensitivities. To mitigate these challenges, future translators should prioritize thorough cultural research, consult with cultural experts, utilize specialized glossaries, and conduct pilot testing with the target audience to ensure that translated messages resonate effectively and achieve the desired impact.

Although diverse in focus, this study shares a common thread with previous research by Ratna, *et al.* and Navik, highlighting the crucial role of translation in effectively communicating messages across cultural boundaries [14-15]. Ratna, *et al.*, in their project on translating a tourism village profile book aiming to preserve ecological heritage for tourist attraction, emphasized the importance of cultural adaptation and information accuracy to ensure user satisfaction. This aligns with the present study's focus on evaluating cross-cultural message consistency in translating climate change communication, specifically from English to Japanese. Navik, in analyzing the semantic equivalence of culturally-charged vocabulary in the Indonesian translation of the English novel *The Da Vinci Code*, found that translators employed various strategies, including cultural adaptation and contextual explanation, to achieve meaning equivalence. Navik's findings reinforce the premise that translators of environmental campaigns also face complex strategic choices in effectively conveying messages to a Japanese audience. This study, as a post-translation analysis, seeks to evaluate the consistency of messages in climate change communication, particularly environmental campaigns, after undergoing translation from English to Japanese. The findings indicate that while calque and modulation techniques are dominant, other techniques such as transposition, amplification, and adaptation are also present, albeit with minimal frequency. This suggests that translators possess flexibility in selecting the most appropriate strategy to maintain message consistency while considering stylistic and cultural aspects of

the target language. Ultimately, a nuanced understanding of both Western and Japanese cultural contexts is crucial for translators to navigate the complexities of environmental campaign translation and ensure that the translated messages resonate effectively with the target audience.

This research acknowledges limitations regarding the availability of data specifically addressing the impact of translation on environmental campaigns in Japan. While numerous studies examine environmental campaigns in Japan and theories of cross-cultural translation, research directly investigating the correlation between the two remains limited. This gap in the existing literature highlights the need for further research to explore this specific relationship in greater depth. Future studies could employ mixed-methods approaches, incorporating field studies or surveys to measure the actual impact of translated environmental campaigns on Japanese audiences' behavior. Surveys could directly measure and identify how different translation strategies in environmental campaigns influence Japanese audiences' attitudes and behaviors. Additionally, expanding the cultural analysis to examine the effectiveness of specific translation techniques, such as localization or the use of culturally resonant metaphors, would provide more nuanced insights. Developing a comprehensive theoretical framework specifically for cross-cultural translation in environmental communication would be a valuable contribution, offering practical guidelines for practitioners. Finally, longitudinal studies tracking changes in environmental attitudes and behaviors over time would provide valuable data on the long-term impact of translated campaigns.

## 5 Conclusion

This study demonstrates that calque and modulation translation techniques are predominant in translating environmental campaigns from English into Japanese. This indicates an attempt to maintain closeness of meaning to the source text while ensuring naturalness in the target language. However, the use of other techniques such as transposition, amplification, and adaptation, albeit with low frequency, underscores the complexity of translators' decision-making in balancing accuracy, naturalness, and message effectiveness. The findings indicate that translators play a crucial role in maintaining the consistency of climate change campaign messages across cultures. This study provides valuable insights into environmental communication translation and can serve as a reference for professional translators in choosing the right strategy to effectively deliver campaign messages to target audiences. Further research could examine how audiences in Japan interpret and respond to translated environmental campaign messages to explore the effectiveness of the employed translation strategies.

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