

Cultural Translation of English Idiomatic Expressions of Weather into Arabic with the Aid of Artificial Intelligence

Ibtihal Mahdi Abdulkareem

ibtihalaltameemi@colang.uobaghdad.edu.iq

University of Baghdad , College of Languages, Department of English

Abstract

Talking about the weather is a popular topic of conversation starter for many English speakers. Since the weather in the United Kingdom is very changeable, it is common to discuss it in everyday conversation. There is a wide range of idiomatic expressions in English concerning the weather. Such idiomatic expressions as "raining cats and dogs", "come rain or shine", and "under the weather" are culturally specific and metaphorical. This paper investigates the translation of such idiomatic expressions into Arabic and examines how Artificial intelligence can help to replicate the cultural insight of human translators. One aim of this research is to identify the linguistic, cultural and contextual difficulties in translating English weather idiomatic expressions into Arabic. In addition, another aim is to evaluate the AI –powered translation accuracy in handling the figurative meaning and cultural relevance of these idiomatic expressions. A qualitative –descriptive approach is used to analyze (20) English weather idiomatic expressions. It is concluded that translating English idiomatic expressions related to weather culturally is difficult and needs a deep understanding of both source and target cultures. Furthermore, AI-translation systems or tools prove to be a good support in identifying some common idiomatic expressions and giving paraphrased versions. But, they failed in replicating the figurative meaning and cultural relevance of some idiomatic expressions where the role of human translators will remain essential to ensure clarity, accuracy and cultural equivalence.

Keywords: Artificial intelligence, Cultural Translation, English Idiomatic expressions, figurative meaning , weather

الترجمة الثقافية للعبارة الاصطلاحية الانجليزية المتعلقة بالطقس الى اللغة العربية بمساعدة الذكاء الاصطناعي

ابتihal مهدي عبد الكريم

جامعة بغداد ، كلية اللغات ، قسم اللغة الانكليزية

المخلص

يُعد الحديث عن الطقس موضوعاً شائعاً لبدء المحادثات بين العديد من الناطقين باللغة الإنجليزية. ونظراً لتقلبات الطقس في المملكة المتحدة، فمن الشائع مناقشته في المحادثات اليومية. هناك مجموعة واسعة من التعبيرات الاصطلاحية المتعلقة بالطقس في اللغة الإنجليزية. ومن هذه التعبيرات "Raining Cats and Dogs" و "Come Rain or Sun" و "Under the Weather" وهي تعبيرات ذات طابع ثقافي خاص ومجازية. يتناول هذا البحث ترجمة هذه التعبيرات الاصطلاحية إلى اللغة العربية، وتبحث في كيفية مساعدة الذكاء الاصطناعي في محاكاة الفهم الثقافي للمترجمين. يهدف هذا البحث إلى تحديد الصعوبات اللغوية والثقافية والسياقية في ترجمة التعبيرات الاصطلاحية المتعلقة بالطقس من الإنجليزية إلى العربية. كما يهدف أيضاً إلى تقييم دقة الترجمة المدعومة بالذكاء الاصطناعي في التعامل مع المعنى المجازي والأهمية الثقافية لهذه التعبيرات. تم استخدام منهج وصفي نوعي لتحليل (٢٠) تعبيراً اصطلاحياً متعلقاً بالطقس في اللغة الإنجليزية. خلصت الدراسة إلى أن ترجمة التعبيرات الاصطلاحية الإنجليزية المتعلقة بالطقس ثقافياً أمر صعب، ويتطلب فهماً عميقاً لكل من ثقافتَي اللغة المصدر واللغة الهدف. علاوةً على ذلك، تُعد أنظمة أو أدوات الترجمة القائمة على الذكاء الاصطناعي دعماً جيداً في تحديد بعض التعبيرات الاصطلاحية الشائعة وتقديم صيغ مُعاد صياغتها. إلا

أنها لم تفلح في صقل المعنى المجازي والأهمية الثقافية لبعض التعبيرات الاصطلاحية، حيث سيبقى دور المترجمين البشريين أساسيًا لضمان الوضوح والدقة والتكافؤ الثقافي.

الكلمات المفتاحية: الذكاء الاصطناعي، الترجمة الثقافية، التعبيرات الاصطلاحية الإنجليزية، المعنى المجازي، الطقس

Introduction

All languages have idioms, phrases, and sentences that cannot be understood literally. English has many of such idiomatic expressions, suitable for expressing a speaker's intentions in different situations (Khosravi & Khatib, 2012, p.1854). Idioms can be considered as a part of everyday language; they are the essence of any language and can still be the most problematic to handle (Adelna & Vahid Dastjerdi, 2011). It is also believed that a language, deplete of idioms, is unattractive; words are considered a skeleton of the language, and the idioms are like its soul, thus wrong translation of idioms may damage the soul of the language (Ghaffari, ٢٠٠١).

Besides, idioms play an important role in language teaching and learning (Wray, 2000) Maisa and Karunakaran (2013) in their study assured that formulaic language expressions such as idioms, collocations, and phrasal verbs play a crucial role in enhancing language fluency and motivating students. Translation extends beyond linguistic conversion to cultural interpretation (Bassnett, 2002). Idioms of weather, embody cultural perceptions and experiences. While English, influenced by its temperate climate and rich metaphorical language, has a wealth of weather-related idioms, Arabic reflects different cultural experiences. With AI-assisted tools now prevalent, this study examines how Artificial Intelligence contributes to the cultural translation of English weather idioms into Arabic and whether it can replicate the cultural insight of human translators.

1. Review of Literature

1.1 What is an Idiom

As defined in the Oxford English Dictionary an idiom is "a peculiarity of phraseology approved by the usage of the language and often having a signification other than grammatical or logical one." On the other hand, Newmark (1988) believes that Idioms are fixed expressions whose meanings are not deducible from the individual words. However, according to Baker (1992), idioms are culturally bound, and their translation requires cultural knowledge and context sensitivity

1.2 The Concept of Culture

The word "culture" is commonly used by people around the world, but its meaning is broad. Various studies define culture within the boundaries of its meaning. One definition is given by Li and Karakosky (2001):

Culture refers to the cumulative deposit of knowledge, experience, beliefs, values, attitudes, meanings, hierarchies, religion, notions of time, roles, spatial relations, concepts of the universe, and material objects and possessions acquired by a group of people in the course of generations through individual and group striving. (pp. 501-517)

Accordingly, it is understood that culture bears many aspects of life that are shared and performed by a group of people. Furthermore, Newmark (1988) believes that culture is the style of life which is unique to a community that uses a certain language as a medium full of expressions.

1.2 British Culture

The climate in Britain is constantly fluctuating due to its geographical location, surrounded by water from all sides. The coastal areas are characterized by humidity and cold. Rain falls throughout the year in all British regions. Britain enjoys a very cold climate in the winter and mild in the summer, in winter it averages about 3 ° C, summer averages 12 ° C, July, and August are the warmest months of the year, and January and February are the coldest.

1.3 English Weather Idioms

Idioms of weather are widespread in English and convey emotions or states indirectly. There are lot of them. For example : *Raining cats and dogs* (heavy rain), *Break the ice* (initiate conversation) and *Under the weather* (feeling ill) These idioms reflect both literal weather phenomena and metaphorical extensions common in English-speaking cultures (Cowie, 1998).

2. Arabic Translation Strategies

Arabic, with its own rich idiomatic tradition, approaches metaphor and imagery differently. Translators often choose between several strategies (Baker, 1992) such as:

- Functional Equivalence (e.g., "زوبعة في فنجان" for "a storm in a teacup")
- Paraphrasing (explaining the meaning without using an idiom)
- Literal Translation (often inappropriate for idioms)
- Cultural Substitution (replacing an idiom with a culturally similar one)

3. Artificial Intelligence in Translation

The emergence of AI has revolutionized translation, particularly through Neural Machine Translation (NMT) (Koehn, 2020). AI systems like ChatGPT and Google Translate use large-scale data to predict meaning and offer idiomatic translations. However, their understanding of context and culture is still developing (Garcia, 2010).

4. Methodology

A qualitative and comparative approach is employed in this research. A corpus of (20) common English weather idioms is collected from idiomatic dictionaries. Each idiom is translated by using AI tools, i.e., Google Translate and ChatGPT (2025). The Evaluation Criteria used in this research are semantic accuracy, cultural appropriateness, and fluency.

5. Data Analysis and Discussion

The table below represents (20) English idiomatic expressions related to weather with their translation by Google translate and ChatGPT

	English Idiom	Google Translate	ChatGPT Translation	Best Choice
1	Raining cats and dogs	تمطر قططًا وكلابًا	تمطر بغزارة	ChatGPT
2	Under the weather	تحت الطقس	لست على ما يرام	ChatGPT
3	Break the ice	كسر الجليد	بدء الحديث لكسر التوتر	ChatGPT
4	Chase rainbows	يطارد قوس قزح	يسعى وراء أوهام	ChatGPT
5	A storm in a teacup	عاصفة في فنجان شاي	زوبعة في فنجان	ChatGPT
6	Come rain or shine	سواء كان الجو ممطرًا أم مشمسًا	مهما كانت الظروف/أو في كل الأحوال/مهما حدث/في السراء والضراء	ChatGPT
7	As right as rain	صحيح كالمنطر	بخير تمامًا / في أفضل حال / سليم ومعافى تمامًا	ChatGPT
8	To save for a rainy day	للادخار ليوم عسير	يدخر لوقت الشدة / يوفر للمستقبل (حرفًا من الظروف الصعبة) يحتفظ بالمال للطوارئ	ChatGPT
9	On cloud nine	في قمة السعادة	في غاية السعادة/في قمة الفرح أو السعادة/ في غاية النشوى	ChatGPT
10	To have your head in the clouds	أن يكون رأسك في الغيوم	شارد الذهن/يعيش في عالم الخيال/غير واقعي أو غير منته للواقع	ChatGPT
11	Weather the storm	مواجهة العاصفة	يجتاز المحنة	ChatGPT
12	Moment in the sun	لحظة في الشمس	لحظة الشهرة/ لحظة في دائرة الضوء	ChatGPT
13	Fair weather friend	صديق وقت الرخاء	صديق وقت الرخاء / صديق مصلحة	Google Translate ChatGPT
14	Dog days of the summer	أيام الصيف الحارة	أيام الحر الشديد في الصيف / أشد أيام الصيف حرارة	Google Translate ChatGPT
15	A ray of sunshine	شعاع من الشمس	مصدر بهجة	ChatGPT
16	A cold day in July	يوم بارد في تموز	شيء نادر جدًا أو شبه مستحيل الحدوث	ChatGPT
17	Soak up the sun	يستمتع بأشعة الشمس	يستمتع بأشعة الشمس / يتشمس	Google Translate ChatGPT

	English Idiom	Google Translate	ChatGPT Translation	Best Choice
18	Spit in the wind	يبصق في مهب الريح	القيام بشي عديم الجدوى / غير مجدٍ	ChatGPT
19	Blood and thunder	دم ورعد	عنيف او مبالغ فيه / مليء بالاثارة والصخب	ChatGPT
20	Full of hot air	مليء بالهواء الساخن	كثير الهراء او مليء بالكلام الفارغ	ChatGPT

It is noticed from the above mentioned table that AI-generated outputs (especially from ChatGPT) displayed more cultural awareness than Google Translate, which often rendered literal translations lacking meaning. ChatGPT was able to approximate cultural metaphors when idioms were common and well-represented in training data. Nevertheless, some idiomatic expressions such as no.(8) *to save for a rainy day* , no.(9) *on cloud nine* , no (13) *fair-weather friend* , no. (14) *Dog days of the summer* and no.(17) *soak up the sun* are rendered by Google Translate appropriately and similar with ChatGPT translation.

Conclusion

Cultural translation is one of the most significant types of translation, despite the incapability of translation in some cases which is due to the lack of cultural harmony. It is found that Cultural translation of idiomatic expressions, especially weather-related ones, is complex and necessitates a deep understanding of both source and target cultures. While AI tools offer significant support—particularly in recognizing common idioms and providing paraphrased suggestions—they are not a substitute for human cultural insight. As language models become more sophisticated, their role in translation will likely increase, but human translators will remain essential for ensuring clarity, and cultural relevance. Furthermore, AI struggles with rare or culturally dense idioms. Additionally, it may default to literal meanings when unsure. It also requires human oversight for fine-tuning cultural details. These findings align with Koehn's (2020) observation that NMT systems perform best when context is clear and culturally neutral.

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