



REFLECTIVE PRACTICE PAPER

Interacting with AI in Creative Translation Teaching: Exploring Subjectivity and Developing Style

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Abstract

This article presents two experiments with Artificial Intelligence (AI) in the context of creative translation, an English Studies course subject at Aix-Marseille University in France. The use of creative writing and translating exercises (culturally relocated texts, plurilingual writing, self-translation...), aims to enhance students' subjective appropriation of their second language and to help them develop their own style. The first experiment uses multilingual text embeddings for self-assessment of a translated text. The second uses generative AI, which produces text. Since we are interested in subjective appropriation of a second language, the article reflects on the kind of language AI uses, with reference to psycholinguistic theory. While generative AI produces rapid outcomes, creative translation teaching focuses on process—what if AI were harnessed as part of the process? The article suggests ways of building on current creative practice in translation teaching as we face the challenges of AI.

Keywords

Creative translation; Large Language Models (LLMs); Generative Artificial Intelligence; exterior language; subjective appropriation; process

1. Introduction

This article arose from discussions between representatives of two disciplines, translation studies and computer science¹. We started thinking about ways to interact creatively first with non-generative AI, then with generative AI, in the field of translation, which both as a profession and a taught subject has been transformed by the immense progress in machine translators and generative AI-produced translation. Creative translation is an academic course in English Studies that Sara Greaves has developed with undergraduate and graduate students at the Aix-Marseille University. Translation teaching typically involves pre-class student preparation of source text extracts, in-class discussion of students' solutions segment by segment, and a proposed version offered by the teacher. By contrast, creative translation, inspired by creative writing, focuses on subjective appropriation of language and uses techniques such as cultural transposition and self-translation. While not neglecting to point out standard usage, it is open to invention and to exploring non-standard modes of expression.

At first sight, machine or AI-generated translation seems a far cry from creative translation, which doesn't aim at immediate outcomes and takes a circuitous, indirect route, and can more helpfully be understood in terms of *lifelong learning*. The objectives of creative translation include translation skills, but courses are also geared to encouraging students to explore their languages subjectively and creatively so as to develop their own style (Lecercle 2022, p.56). To achieve this, students would need to interact with AI as part of their overall language learning *process*, rather than as a shortcut to a translated text—done and dusted! How can they be encouraged to deploy these technologies in a process of subjective elaboration and creative collaboration? How can these technologies be developed pedagogically to stimulate students' critical analysis of their own translation to encourage creativity, and to offer a new kind of literary translation *work* (Scott, 2018)—the creative work that takes place in the time and space between the source text (the text to be translated) and the target text (the translated text) which involves reading, writing and translating? A further objective in including AI in teaching is to encourage a critical stance towards AI itself.

To address these questions, given creative translation's emphasis on the subjective appropriation of language, we will begin by reflecting upon the kind of language AI uses in relation to natural language, with reference to contemporary philosophers and psycholinguistics. We will then present our first attempt at interacting with AI in creative translation, using a non-generative AI approach, more specifically multilingual sentence embeddings. Finally, for our second experiment we progress to generative AI, which produces text rather than *scores*, using a generative AI model to work on subjectivity and style in creative translation. Before we go into the methodologies of the experiments, however, it must be pointed out that these have been tested on a very small scale—one student for the first experiment, and two for the second. The findings of these experiments are therefore subject to clear limitations and would need further testing in the future.

2. AI-produced language

AI-produced text belongs to a peculiar kind of language. The philosopher Éric Sadin claims that AI language is radically different from natural language—which generative large

¹ This paper originates from a presentation delivered at the international conference *EuroCALL 2024: CALL for Humanity*, University of Trnava, Slovakia, on 28th August 2024.

language models are nevertheless based on—because it relies on probability distributions. AI language, he claims, has no spontaneity, is not produced by the flow of speech or writing but by the invisible, underlying trajectories of algorithms (Sadin 2024, and cf. 3Blue1Brown, 2024). This chimes with the distinction Raphael Enthoven makes between artificial intelligence and the human mind, which, he says, is “the unquantifiable element in our lives, which is to say the essential one” (Enthoven, 2024). Prediction may indeed play a role in natural language, but what is specific to human language—despite the combination of words by rules—is its seemingly irreducible unpredictability, as Noam Chomsky famously argued, after developing the concepts of “generative grammar” and “universal grammar”. We do not know in advance what we are going to say, what words are going to fall from our lips, which images, phrases, references or memories are going to spring to mind and add emphasis, erudition, complicity, humour or spice to our speech (Heilbron, 2020).

While AI language appears distinct from human language, it is nevertheless possible to consider its relation to the mother tongue and to posit it on a diachronic spectrum proceeding from early infancy to childhood and adulthood, as described by the linguist Monique De Mattia-Viviès. This spectrum begins with the Lacanian *lalangue* of prelinguistic babble, which is “body and sound oriented, a private language shared by mother [or caregiver] and child”, and which, all being well in the language learning process, will gradually develop into the articulated language of the family circle or “language of the interior”, “at once sociolect, idiolect, and language of affect”. This interior language will in turn come into contact, sometimes into conflict, with the “language of the exterior” used at school, which is “of varying degrees of sociological and idiolectal discrepancy with the interior language”, the language used in the home (De Mattia-Viviès, 2022, 22). Any foreign language that we come to study, rather than radically *other*, can more accurately be pictured on a spectrum—occupying a position at a further remove from the body-oriented language of infancy than exterior language, while remaining porous to it, to the affect and sensuality of *lalangue*. Monique De Mattia-Viviès, therefore, calls this foreign language an “extra-erior” language (De Mattia-Viviès, 2022, 25). If we then apply this model to AI-produced language, the latter could be framed—not, after all, as radically distinct from human language, but as an *extra-extra-erior* language—at a further remove still from the body than the foreign language. While the challenges to humanity of AI are numerous, one of them is undoubtedly the kind of language it is likely to impose on human subjects. If creative translation is designed to encourage subjective engagement in the second language, should we not be imagining ways of infusing AI with subjectivity and affect too?

This was our starting point for the following experiments: how can interaction with AI in a creative translation class encourage subjective appropriation in our students’ use of English? How can we encourage them to value their personal style rather than giving in to the facility of AI-speak?

3. First experiment: multilingual text embeddings

The aim of this experiment based on multilingual text embeddings was to encourage reflection and stimulate creativity in translation. Text embeddings are numerical vectors that represent the semantic meaning of words, phrases, or sentences. They are produced by AI models trained on large text corpora and are designed so that semantically similar texts are located close to each other in a high-dimensional vector space.

Unlike generative AI systems that produce new text (e.g. translations), this method does not generate language output. Instead, it creates the embeddings of two sentences to measure their similarity. We use the *distiluse-base-multilingual-cased-v1* model, developed by the Sentence-Transformers team (Yang et al., 2020), which is specifically trained to align sentences from different languages within the same embedding space. This cross-lingual alignment ensures that sentences with similar meanings—regardless of language—are positioned near one another in the vector space (Reimers & Gurevych, 2020).

We therefore made the hypothesis that by exploiting this property, we could assess whether two sentences in different languages are likely translations of each other; if their embeddings are closely aligned the sentences are probably semantically equivalent. To measure the closeness of two high-dimensional vectors, we used the *cosine similarity* measurement. It is a value ranging from 0 to 1, where values closer to 1 indicate higher similarity; the higher the similarity between the vectors, the greater the likelihood of a literal or near-literal translation. This idea could then be applied to creative translation teaching, by *quantifying* the creativity of translations and inviting reflection on the quality of the creativity thus identified.

To put this idea into practice, we designed a translation exercise in which a sentence (or a line of verse) is translated from French into English and both the source and the translation are encoded with the multilingual embedding model. Their cosine similarity is then computed. Scores approaching 1.0 indicate high semantic proximity and, therefore, tend to correlate with more literal renderings; lower scores suggest looser renderings that may reflect creative choices—or errors. We piloted the exercise with a master's student working on James Sacré's contemporary French poem "Brouettes", meaning "wheelbarrows". The student we asked to test this² used the scores to reread and self-assess. Segments with lower similarity were examined for the degree to which they achieved a poetic or innovative effect or merely produced awkwardness or mistranslation, while segments with higher similarity were checked for excessive literalism, errors, or plain flatness.

The free verse French poem sequence uses a colloquial register and the *natural* flow of interior monologue to focus on wheelbarrows, allowing memories, anecdotes and everyday objects to surface. Here the speaker in the poem starts a comparison then interrupts himself to quote someone else (a poet?) in or from Morocco:

La brouette aussi patiente... les brouettes sont-elles pas,
Comme dirait l'autre au Maroc,
Des sortes d'ânes «climatisés»?³

This could be translated as follows: "The wheelbarrow as patient as... aren't wheelbarrows, / As my friend in Morocco would say, / Like "air-conditioned" donkeys?". Here is an example of the student's translation and re-translation using the similarity score:

Comme dirait l'autre au Maroc > Like he said, the one from Morocco (Score: 0.7)
Comme dirait l'autre au Maroc > Like the other said in Morocco (Score: 0.83)

"Comme dirait l'autre" is a colloquial expression used ironically when using clichés ("as they say") or when implicitly referencing a specific writer, songwriter, philosopher etc. ("as what's-his-name would say" or: "as my/our friend would say"). The first example above has captured the colloquial tone with the ante-positioned subject pronoun ("Like he said"), although "the one from Morocco" is vague, and the second example sounds awkward as "the other" doesn't carry the ironic overtone of "l'autre" in French. To return to the AI experiment, the multilingual embeddings technology attributed the first translation 0.7 out of 1.0 because it strayed from the semantics ("the one", not "other"), the second 0.83, a higher mark but still below 1.0, perhaps because the translation has used the wrong tense (the simple past instead of the conditional) or modified the syntax. We note that a higher mark is given to the more literal but less satisfactory translation.

The results were therefore mixed. The approach offers a quick signal of semantic proximity that can help students locate where their text stays near to—or departs from—the source in that respect. They can then reflect on, in this case, why "other" does not correctly translate "autre". However, relying on a single number between 0 and 1 as an index of *creativity* proved pedagogically blunt. Because sentence embeddings primarily

² A student enrolled in Études Culturelles du Monde Anglophone (Cultural Studies in the Anglophone World, ECMA), a Research Master's Degree at Aix-Marseille University, 2023. Many thanks!

³ James Sacré, *Brouettes*, Obsidiane, 2022, p.10.

capture global meaning, any fine-grained craft—diction, register, rhythm, imagery or irony—often barely moves the vector. Substituting a word or adjusting an idiom can meaningfully change the poem’s meaning or effect while leaving the similarity essentially unchanged. The opacity of the metric also encouraged the student to ask themselves “why 0.70 rather than 0.76,” diverting attention from creative decision-making to the mechanics of the score.

Furthermore, the student’s attention was focused on interpreting and analysing an *external* assessment of the translated text, thus the method was not really innovative in enhancing subjective appropriation and style, with the AI tool representing the norm. This is problematic as one of the principal difficulties for language students, including in translation classes, is to free themselves up to be creative and take risks—to deconstruct the fantasy of perfect language mastery or the perfect translation, which is often how students perceive the translated text proposed to them by the teacher. Ultimately, then, this experiment was inhibiting, when what we were looking for were ways to use technology that stimulates creativity.

Our second experiment progresses to generative AI and is derived from comparative translation exercises in which different versions of a text are analysed.

4. Second experiment with Generative AI

For our second creative translation experiment, we did not feed in a student’s translation but gave a text to Chat GPT and asked for the generation of not one translation, but several. This time the student produces their translation *after* the AI input, not before, our aim being to use the AI tool to introduce a playful dimension, broaden the spectrum of possible translations and encourage subjective appropriation and autonomy through making choices. Here is the prompt:

“You are a poetry translator. You are given a text in English, and your job is to generate 5 translations in French. The first one will be as literal as possible, and the following ones must be increasingly creative. The fifth translation must be as creative as possible. You are allowed to use expressions that only exist in the target language for the translations.”

Two volunteers, Master’s students,⁴ were given the generated translations. Having studied the source text carefully, looking out for tone, language register, musical effects, use of tense and style, the students were then asked to take the ideas—syntactical, lexical, metaphorical etc.—suggested by the AI to formulate their own translation of the text, while making notes to explain their choices. In making these translation choices, they were allowed to use only one of the AI-generated translations, make a patchwork of several, or use none if they so preferred.

The source text we chose was the incipit from Chapter 13 of James Joyce’s *Ulysses*, published in 1922:

The summer evening had begun to fold the world in its mysterious embrace. Far away in the west the sun was setting and the last glow of all too fleeting day lingered lovingly on the sea and strand, on the proud promontory of dear old Howth guarding as ever the waters of the bay, on the weedgrown rocks along Sandymount shore and, last but not least, on the quiet church whence there streamed forth at times upon the stillness the voice of prayer to her who is in her pure radiance a beacon ever to the storm-tossed heart of man, Mary, star of the sea. (Joyce, 1922, p.284)

The students were left alone for about an hour and a half to work. When we joined them to discuss the experiment they had enjoyed it, had been amused and surprised by the

⁴ Our sincere thanks to these two students, enrolled in Études Culturelles du Monde Anglophone (Cultural Studies in the Anglophone World, ECMA), a Research Master’s Degree at Aix-Marseille University, 2024.

variety of proposals, and had a lot to say. They responded critically, noting for instance that the *word-for-word* approach of the literal version, version no.1, reproduced English expressions that were not usual in French, such as “le dernier mais non le moindre” for “last but not least”. They noted mistranslations such as “pliage” for “fold the world...” — where the French verb “plier” means to fold or bend but not to enfold, as here—and weighed up the different propositions, particularly in relation to the ironic tone needed to recreate Joyce’s parody of sentimental romantic prose. A striking creative example was “A l’aube d’une soirée d’été...” in version no.3, for the opening phrase: “The summer evening had begun...”. True, the text’s sentimentalism was reinforced by a transposition of the verbal form “had begun” using a metaphorical noun-phrase, “à l’aube de...” meaning “at the dawn of...”, but the combination of a figurative reference to time (dawn) with a literal one (the summer evening) was deemed very bad taste—a far cry from Joyce’s nuanced parody. Here are all the translations of the first sentence the students were choosing from, sorted from 1-5 for creativity:

Base sentence (English): “The summer evening had begun to fold the world in its mysterious embrace”.

Version 1: L’été commençait son pliage du monde dans une étreinte pleine de mystères.

Version 2: Le soir d’été avait commencé à envelopper le monde dans son étreinte mystérieuse.

Version 3: À l’aube d’une nuit d’été, le monde s’enroulait dans le voile mystérieux de l’occident.

Version 4: Sous le ciel de l’été qui s’assombrit, le monde se plie dans un secret d’étoffe nocturne.

Version 5: Lorsque l’été tisse le crépuscule, le monde s’enfouit sous son châle de mystères.

As well as developing the students’ critical capacities regarding English language and literature, this exercise had other benefits in comparison with a translation entirely of their own making. They felt that using AI in this way encouraged them to be more creative themselves because it came up with sophisticated vocabulary and interesting expressions that they would not have thought of, thus widening their horizons. Similarly, being confronted with a translation that was highly *creative* such as no.5 (“When the summer weaves the twilight, the world hides itself beneath its shawl of mysteries”), incited them to reach for a more conservative option and adjust their translation accordingly.

This experiment leads us to the following findings. First, having several translations meant that the inhibiting effect of the external, normative translation did not come into play. Traditional comparative translation exercises can also achieve this, but published translations, sometimes by famous author/translators—in the case of translations of *Ulysses*, Stuart Gilbert, Valéry Larbaud, Jacques Aubert, not to mention James Joyce himself—can be haloed in their own prestige and students sometimes need a lot of encouragement to feel legitimate in critiquing them. An AI translation is in this sense *lighter*, more accessible and fun to do. Second, the students behaved as authors, making decisions for their own translation, which they were keen to defend. The exercise seemed to give a sense of satisfaction and thus to contribute to a healthy narcissism, (Kohut, 1971, p.9)⁵ which is highly conducive to learning, including of course language-learning.

Third, observing literary or linguistic anomalies such as mis-used images, awkward syntax, or mistranslations has an added pedagogic value in that it develops critical capacities with regard to AI productions, which is part and parcel of our objective here.

⁵ Healthy narcissism was defined by Heinz Kohut as a “mature form of positive self-esteem; self-confidence”.

It is disclosed on almost every chatbot that the information given must be fact-checked. Finally, translation scholars such as Henri Meschonnic (1999) and Clive Scott (2018) insist on translation as a *process* rather than focusing on the finished product, making a noun of the verb *traduire* or coining the phrase *translation work*. Given AI's rapid production of text, it becomes even more essential to emphasise this.

With this experiment, then, as well as developing critical capacities in the fields of literature, linguistics and AI, subjectivity and style were reinforced through the exercise of personal taste.

5. Conclusion

In this paper we have presented two experiments using AI in the context of creative translation, with a focus on second-language subjectivity and style. Both experiments need testing with larger cohorts, but while the first didn't help with signalling meaning correctly and failed to liberate the student from the inhibiting effects of external judgement, the second allowed for an engagement with translation and AI in a creative process, an approach conducive to reinforcing subjective appropriation of the second language. Having postulated that AI language is a sort of *extra-extra-erior* language, at a further remove from the body-oriented *lalangue* of infancy than foreign languages, creative interaction with generative AI seems a promising way forwards. Other exercises could include prompting a generative AI version of a piece of creative writing produced by language learners, fashioned in the style of Rabelais, or Byron, for instance, or using a writing constraint, as in Raymond Queneau's *Exercices de Style* (Queneau, 1947), then translating the AI text. An AI-generated cultural transposition could be used, with dialectical words in the English text to create a plurilingual texture; or else cut-up poems could be produced by snipping up and pasting segments of an AI translation to produce a critical rewriting of it. Above all, creative interaction can make a constructive ally of what Eric Sadin describes as a "pseudo-language, because it is mathematics and statistics-based and so standardised" (Sadin, 2024), thus using it to enhance, not hinder, subjectivity and style.

Ethical statement

All participants involved in the pedagogical experiments were master's students who participated voluntarily. No personal or identifying data was collected. There is no conflict of interest to declare. The AI tools used for the experiments appear in the references.

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