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Language-Mediated Frenchness: Cultural Representation and Distributed Authorship in Multilingual Generative AI Narratives

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Abstract. Generative artificial intelligence is gradually expanding beyond information retrieval and text-assistance tools into storytelling, literary production, and cultural expression. For multilingual AI, language not only serves an informational function but may also be associated with different training data, forms of cultural knowledge, and narrative conventions. Consequently, the same narrative task may yield cultural expressions that are not entirely identical when generated in different linguistic contexts. Taking "a French child leaving home for the first time" as a common narrative theme, this study compares three stories generated by ChatGPT from equivalent prompts in French, English, and Chinese. Using comparative textual analysis, the three texts are coded across multiple dimensions. The findings show that although the texts share a common narrative structure, they differ markedly in their cultural expressions and representational choices. These linguistic differences should not be interpreted as evidence that language directly determines culture. Rather, language can be understood as a cultural interface and cue that prompts the model to activate different language–culture associations, which in turn shape the characters, spaces, values, and narrative forms of the stories.

Keywords: Generative AI, Multilingualism, Cultural Representation, AI Storytelling, French Culture

1. Introduction

Generative artificial intelligence is now capable of producing multilingual stories, raising questions about whether language changes merely affect vocabulary or also transform cultural contexts. Language is not simply a neutral vehicle for transmitting pre-existing meanings, its specific forms, discursive practices, and cultural concepts may shape how meaning is organized [1]. AI outputs are shaped by training data, language distributions, and existing social structures [2]. Naous et al. trace the origins of cultural bias from pre-training data to cross-linguistic phenomena, showing that such bias is related not only to the distribution of cultural entities in corpora but also to word meanings, lexical overlap, and tokenization mechanisms across languages [3]. Tao et al. find that multilingual cultural prompting can improve the cultural alignment of model outputs to some extent [4]. AlKhamissi et al. further report that when a model is prompted in the dominant language associated

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with a given culture, its outputs tend to exhibit a higher degree of cultural alignment [5]. Naous et al. show that even multilingual models may reproduce cultural stereotypes and cultural inequities in culturally situated tasks such as story generation [6]. More recent research has begun to examine the effects of language-specific knowledge and multilingual prompting on diversity in model generation [7]. Existing studies have identified differences between AI-generated stories and human-authored texts in narrative tension, structural diversity, and emotional dimensions. Stylometric research has also found that texts generated by different large language models can form relatively distinguishable stylistic clusters and exhibit certain features of machine "authorship" [8, 9]. A review further argues that AI is shifting from a mere creative tool to an agent involved in the construction of narrative worlds, with authorship being progressively redistributed from a single creator across humans, systems, and infrastructures [10].

This study employs comparative textual analysis and focuses on representations of French culture. Using the same task—telling a story about "a French child leaving home for the first time"—it generates texts in French, English, and Chinese and compares their characters, spaces, family relationships, values, cultural symbols, and narrative conventions.

2. Methodology

2.1. Research design

This study employs comparative textual analysis on three stories produced by a generative AI model in French, English, and Chinese, all centered on the theme of a child leaving home. The core narrative theme is held constant, while only the prompt language is varied, allowing the study to examine the relationship between linguistic variation and cultural representation in the generated texts. The analysis addresses the following three research questions:

RQ1: When the same narrative prompt is entered in French, English, and Chinese, how does generative AI produce different French cultural themes and representations?

RQ2: What cultural assumptions, values, and narrative conventions associated with "Frenchness" does AI construct in the French, English, and Chinese versions, and how is this "Frenchness" reorganized and represented across different linguistic contexts?

RQ3: What do these cross-linguistic differences reveal about the relationship among language, cultural representation, and authorship in generative AI?

In the French version, the protagonist is ten-year-old Lucas, who travels to a small village near the Alps to attend summer camp, in the English version, the protagonist is twelve-year-old Émile, who departs from Lyon by train for the mountains, in the Chinese version, the protagonist is an eighteen-year-old first-person narrator who leaves home to attend university in Paris. This experiment demonstrate that the protagonists' ages, plot details, and settings in the three texts were not specified by the prompts as content to be translated, rather, they were supplied by the model during generation.

2.2. Textual analysis

The study adopts a multi-factor comparative analysis. Based on the shared structure of the three texts and the research objectives, the principal dimensions of comparison are as follows: the character dimension focuses on age, developmental stage, and protagonist identity, the spatial dimension examines settings such as villages, cities, natural landscapes, universities, and public transportation, the family dimension considers relationships among mothers, fathers, and children,

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the cultural-symbol dimension examines food, place names, everyday objects, and French sociocultural institutions, the value dimension focuses on independence, responsibility, family, self-discovery, and growth, and the narrative dimension analyzes forms such as first- or third-person narration, dialogue, sensory description, reflection, and symbolism.

In addition, this study establishes a specific dimension termed "Linguistic Markers of Frenchness" to examine the functions of French expressions such as Maman, Papa, Au revoir, mon cœur, and colonie de vacances across the different language versions.

2.3. Analytical objectives

The analysis addresses two levels of inquiry. The first is the identification of differences, namely, determining where the three stories diverge. The second examines how these differences collectively construct distinct images of French culture. This study consistently avoids inferring generalized characteristics of French, Chinese, or English-speaking cultures directly from the three texts. The three stories constitute only a limited dataset produced by a specific model, under specific prompts and generation conditions. Accordingly, the study concerns AI-generated cultural tendencies rather than essential attributes of real-world cultural groups.

3. Findings and detailed textual analysis

3.1. Shared narrative structure

The three stories exhibit a consistent coming-of-age structure centered on "leaving a familiar family environment and gradually gaining independence." This structure can be summarized as follows:

Home → Departure → Separation → Solitude → Discovery → Growth

In the French version, Lucas leaves his parents, initially feels lost, then interacts with other children, and ultimately comes to understand that "leaving home" entails growth and exploration. In the English version, Émile moves from Lyon through the train journey, countryside, and mountains, and writes in his notebook that he may "come back different." The Chinese version begins at home and moves to Paris, where the protagonist experiences solitude and homesickness, learns to live independently, and ultimately realizes that leaving home does not mean losing one's family.

These findings indicate that changing the language does not disrupt the model's basic understanding of the "first time leaving home" narrative type. Instead, cultural differences arise through the reorganization of characters and themes within a shared framework. This observation also resonates with existing research on AI storytelling: large language models tend to rely on relatively stable story structures and narrative patterns [9].

3.2. Character age and developmental stage

One of the most conspicuous differences among the three versions is the age of the protagonist.

Lucas is ten years old in the French version, Émile is twelve in the English version, and the protagonist in the Chinese version is eighteen. The first two stories interpret "leaving home for the first time" as an initial, temporary separation within childhood development, whereas the Chinese story situates the event at the explicit life transition of entering university.

As a result, the three texts construct different models of growth. The French version emphasizes a child's first attempt to move from family life into collective living. Summer camp provides a relatively safe transitional space, so leaving home is not a complete social rupture but a form of

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developmental training. The English version frames leaving home as a more typical coming-of-age experience. At twelve, Émile can already articulate the possibility that "I might be different," defining growth in terms of self-recognition and personal change. In contrast, the Chinese story associates leaving home at eighteen with entering university and urban life, marking a shift to adult independence. Thus, although all three language versions share the theme of leaving home, they construct three different scales of development: childhood exploration, adolescent self-discovery, and young-adult independence.

3.3. Family relationships and emotional expression

Family relationships are among the most stable shared elements across the three texts. In all three stories, parents are portrayed as important figures who support the child's departure rather than as obstacles to the child's development. However, the forms through which familial care is expressed differ markedly.

In the French version, the mother checks the clothes and the father prepares the backpack. The father is described as "reserved but supportive," and familial care is expressed primarily through concrete actions. At parting, the mother says, "Prends soin de toi et amuse-toi bien," in brief and direct language. In the English version, the mother repeatedly checks the luggage, hugs the child, and asks about the charger and notebook, the father says, "You don't have to be brave all the time," assuming a comparatively explicit role of emotional guidance in the narrative.The Chinese version presents familial affection through everyday acts such as breakfast preparation and phone reminders.

Cultural tendencies emerge, depicting French parents as restrained, English-speaking culture as individualistic, and Chinese culture as family-oriented, illustrating diverse narrative patterns of care in different linguistic contexts.

3.4. Cultural space and frenchness

Space is a central variable through which the three texts construct Frenchness. In the French version, Frenchness is embedded primarily in the story's lived environment, the English version actively establishes Frenchness through numerous recognizable French symbols, and the Chinese version constructs Frenchness chiefly through an imaginary of modern Paris. This research argues that the English version works hardest to demonstrate that it is set in France, whereas the French version has the least need to do so. Addressing an English-language readership, the English version makes Frenchness visible through symbols such as Lyon, the Rhône, croissants, and the Alps. In the French version, by contrast, the language itself already constitutes part of a French cultural context, reducing the need to repeatedly invoke explicit French symbols. The Chinese version occupies an intermediate position.It constructs a more contemporary image of urban France through Paris, the metro, the university, and the apartment. This suggests that the visibility of cultural representation does not depend simply on the "number of cultural symbols," but on the recognizability of those symbols within a particular linguistic context.

3.5. Value orientations and the logic of growth

The three versions culminate in different value-oriented resolutions.

French version highlights Autonomy → Discovery → Growing Up, illustrating that independence does not equate to forgetting family. English version focuses on Individuality → Courage → Self-discovery. The narrative focus thus shifts from the simple act of leaving home to the transformation

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of the self. Chinese version centers on Family → Responsibility → Independence. Personal independence and family continuity are therefore not positioned in opposition but organized as parts of the same developmental process.

This difference shows that cultural representation resides not only in explicit cultural symbols such as place names and food, but also in culturally shared value judgments—for example, in what a story ultimately takes "growth" to mean.

3.6. French-language markers and cultural authenticity

Although the English version is written predominantly in English, it retains French terms such as "Maman" and also uses words associated with a French context, including croissants, Rhône, and Alps. The French version, by contrast, naturally uses Maman, Papa, Au revoir, mon cœur, and colonie de vacances. This suggests that, in an English-language generation context, French words themselves may function as "markers of cultural authenticity."

This mechanism can be understood as a linguistic shortcut to cultural authenticity: when a text needs to establish the authenticity of a foreign cultural setting quickly, language itself can be used as a cultural symbol. This finding may suggest that "Frenchness" lies not only in the content of a text but also at the level of which language the text chooses to use in naming the world it constructs.

4. Discussion

4.1. Language as a cultural interface

This study posits that, in generative AI narratives, language can be understood as a cultural interface. Consequently, translating a prompt from French into English or Chinese should merely result in the same story being "told differently."

The three texts, however, do not exhibit such a fully equivalent relationship of transformation. The same theme of "a French child leaving home" becomes a children's summer-camp story in the French context, a literary coming-of-age story spanning Lyon and the Alps in the English context, and a story of adult independence in Parisian university life in the Chinese context.

Accordingly, the process can be summarized as follows:

Same Narrative Prompt → French / English / Chinese → Different Linguistic-Cultural Associations → Different Narrative Choices → Different Representations of Frenchness.

This mechanism resonates with research indicating that prompt language can activate different cultural understandings in AI models, showcasing that language not only shapes cultural knowledge responses but also influences narrative storytelling [3, 5, 7].

4.2. Multiple constructions of frenchness

The three texts do not generate a single, unified "France." Instead, they produce, respectively: Everyday France — village, Alps, summer camp, Aesthetic France — Lyon, Rhône, croissants, bakery, church towers, and Urban France — Paris, metro, university, apartment. This suggests that the Frenchness represented by AI is not a fixed object, but a set of cultural resources that the model can retrieve and recombine.

Frenchness in the English version is especially "display-oriented." Lyon, the Rhône, croissants, and the Alps are not strictly necessary to the plot, yet the model introduces them. These elements help English-language readers quickly identify the story's French setting. The Chinese version, by

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contrast, does not rely heavily on traditional symbols of French culture, but instead connects France with modern urban life. Paris is is the space in which adulthood, university education, and independent living unfold. The French version relies on implicit cultural identity, requiring less explicit display. This study proposes a new concept: "language-mediated Frenchness." The term refers to the way prompt language can alter the pathways through which a model accesses cultural resources, thereby changing how culture becomes visible within a narrative.

4.3. Distributed authorship

This finding further raises the question of authorship in generative AI. In traditional narrative production, a relatively clear chain can be established: Author → Experience → Narrative → Text. In generative AI, however, the chain is more complex, as shown in Figure 1.

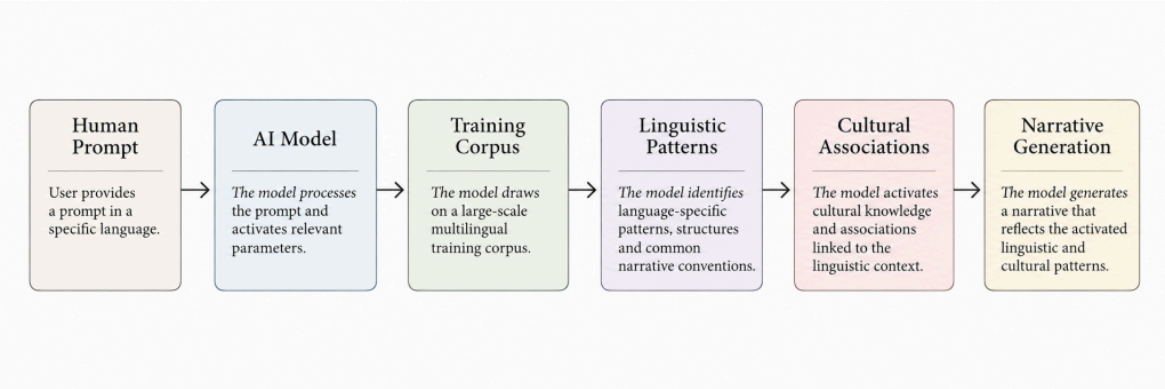


Figure 1. Mechanism by which language activates cross-cultural associations and influences AI narrative generation

Generative AI storytelling involves making narrative choices in unspecified areas of prompts, contributing significantly to cultural meanings within the stories. Nevertheless, defining AI directly as an "author" remains overly simplistic. Recent research on AI storytelling describes this shift as authorship redistribution, whereby creative labor, authority, and responsibility are redistributed across different actors and infrastructures [10]. Stylometric research also shows that texts generated by different models can exhibit relatively stable and distinguishable stylistic features, contributing to the debate on machine-generated authorship [8]. A 2026 study emphasizes that it renders authorship more relational and infrastructural [11]. In the cases examined here, Frenchness is not determined by a single agent but is co-produced through the interaction of human prompts, model architecture, training corpora, linguistic context, and established narrative conventions.

5. Conclusion

This study finds that generative AI exhibits relatively stable genre-based narrative structures across different linguistic contexts, yet these structures do not produce identical cultural stories. The three language versions construct different imaginaries of French culture, supporting the concept of "language-mediated Frenchness" proposed in this study: language may function as an important interface through which models activate different cultural associations. At the same time, AI does not merely perform linguistic conversion, it participates in constructing cultural worlds, and its authorship can be understood as a form of distributed authorship.

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This study remains limited by its small sample size, its reliance on a single model, and the interpretive nature of cultural coding. Future research could expand the range of texts and models and introduce independent coders and additional textual-analysis methods. Overall, cultural research in the era of generative AI should ask not only whether AI "knows" a culture, but also how AI narrates culture through language. Language is no longer merely the outer form of a story, it becomes part of the production of cultural meaning.

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