ARTICLE

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Geospace translation strategies and their cognitive construal

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Since the literary geospace is usually tinged with the author's embodied experiences, it calls on the translator to restore or reconstruct the ST geospace's geographical reality or imagination in the target language culture. Based on the embodied cognition of the environment, the translator can wash and negotiate the geographical conceptual system of the ST geospace by resorting to the three translation strategies, i.e., retention, reconstruction, and substitution, so as to generate new geospace in the geographical conceptual system of the TL. The article aims to analyze geospace translation strategies from the perspective of conceptual blending theory. The translator's use of different translation strategies results from different mapping paths among the spaces of the source text, of the translator, and of the target text. It can illustrate the regularities of the translator's space mediation in translating the geospace. Retention signifies the single-domain mappings from the space of ST. Substitution indicates the single-domain mappings from the space of the translator. Reconstruction denotes the double-domain mappings from both the spaces of ST and the translator. The emergent structure generated in the space of the target text yields the reterritorialization of the geospace in the target language culture, which can stimulate the reader of TT to get a similar geographical experience to that of the author and to empathize with the author's sense of place to a greater extent.

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Introduction

Any translation activity is to spread language, culture, and knowledge from one place to another, creating an essential interaction between the geospace and the translation behavior. This innate connection has sparked many related studies. Beginning with verifying the geospace contained in the term "translation" (Cronin, 2003; Marais, 2014; Simon, 2018; Sun, 2021), the scholars investigated either translation phenomena in the geospace or the geospace in translation activities. The former focused on the material geospace's influence and restrictions on translation phenomena. For example, He and Hou (2020a, 2020b) probed into the causes of the regularities of the Chinese translators' geographical distribution from the Song Dynasty to the Ming Dynasty (CE 960–1644). Liu and Guo (2023) explored how regional factors affect the gender composition, language style, and the translation field of contemporary translators in Henan Province. The latter concerned the fictional geospace as a research object of translation, some summarizing the strategies of translating the geospace elements such as folk language (Berezowski, 1997; Reiss, 2000; Shan, 2017; Ren and Yan, 2017; Zhou, 2022) and landscapes (Italiano, 2016; Wang et al., 2018; Wang, 2019), while others investigating the overall mechanism of the geospace conversion (Wang, 2014; Upton, 2014; Zhou, 2021; He and Sun, 2022). The above studies lay the foundation for Geo-translation studies[1]. However, these studies neglect the interactive mode between the material geospace of the translator's activities and the fictional geospace in which the translator operates. Scholars have not identified the regularities of the translator's mediation between different spaces in the translation process. Using as examples the translations of five typical regional literary works, the article aims to summarize the geospace translation strategies and conduct a construal[2] of the translator's cognitive paths behind the translation strategies from the perspective of conceptual blending theory (CBT).

The representation of the geospace: negotiation and washing

Before we begin to explore the method of geospace representation, a definition of the keywords involved is necessary. The literary geospace, the first keyword in question, is a spatial domain for a variety of geographical objects, processes, and phenomena that arise, exist, and change in response to the actions of characters in the literary work. In contrast to the abstract and symbolic "space" of postmodernism, the geospace covered in this article is closely related to the geographical environment to which the constructor is exposed. The literary geospace displays not only the concreteness and perceptibility of the geographical reality but also the virtuality and the author's emotion of the geographical imagination. To be specific, the geographical reality is the historical or present-day geographical facts of a particular place, i.e., man-made hazards, natural disasters, and geological formations. The geographical imagination refers to the author's environmental attitudes and local sentiment, which are exhibited in the artistic portrayal of the geographical reality. Both originate from the author's cognition of a particular area.

Cognition, the second keyword of the article, is highly embodied or situated and derives from interactions between the human body and the surroundings. It serves as both the resource and the constraint, generating different linguistic and conceptual systems (Wen and Si, 2020, p. 2). This leads to the third and fourth keywords, "embodied experience" and "embodied cognition". The term "embodied experience" denotes the agent's interaction with the humane and natural geography of his birthplace and his activity place. Public knowledge and personal sentiments stemming from the agent's "embodied experience" constitute his "embodied cognition". Thus, the author builds the literary geospace based on his embodied cognition, which in turn derives from his embodied experiences in the physical surroundings of the birthplace and the activity place. The geospace translation requires the translator to go through the process of tracking the extra-verbal context from its vocabulary, grammar, and structure (Peng, 2016, p. 461). To ensure the reader of TT an embodied experience that is comparable to the author's, any responsible translator should transform the author's embodied cognition into textual representation. However, given that the translator usually lives in a different environment with a distinctive geographical identity[3], the geospace of TT is reconstructed on the geographical conceptual system, which is derived from his embodied cognition of the birthplace and the activity place. The translator relies on his geographical conceptual system to negotiate and wash[4] the geospace of ST and its geographical conceptual system. The translation strategies for different geospaces are adopted to deal with the similarities or differences between the geographical conceptual systems of SL and TL. Through negotiation and washing, the geographical reality and imagination of the ST geospaces are restored or reconstructed to varied degrees in TT. It has three situations, which are outlined below.

Geospaces present in the geographical conceptual systems of SL and TL: retention. Because of the shared sensorimotor system and geographical structure, some geospaces of ST are present in the geographical conceptual system of TL. The translator can use the retention strategy to encourage the reader of TT to acquire the same or similar geographical experiences as those of the author. The translator preserves the geospatial structures (landforms, weather, infrastructure, etc.) and their relations to restore intact the geospace of ST in the TL geographical conceptual system. The reader of TT can acquire the geographical reality and imagination that the author endows with the literary geospace.

Example 1

ST: And all that day, while the train wound through rushing gaps and along ledges where movement was only a laboring sound of the exhaust and groaning wheels and the eternal mountains stood fading into the thick sky, I thought of home, of the bleak station and the mud and the niggers and country folks thronging slowly about the square, with toy monkeys and wagons and candy in sacks and roman candles sticking out, and my insides would move like they used to do in school when the bell rang. (Faulkner, 2013, p. 71)

TT: 整整一天，火车弯弯曲曲地穿过迎面而来的山口，沿着巉岩行驶，这时候，你已经不觉得车子在前进，只听得排气管和车轮在发出吃力的呻吟声，永无穷尽的耸立着的山峦逐渐与阴霾的天空融为一体，此时此刻，我不由得想起家里，想起那荒凉的小车站和泥泞的路还有那些在广场上不慌不忙地挤过来挤过去的黑人和乡下人，他们背着一袋袋玩具猴子、玩具车子和糖果，还有一支支从口袋里撅出的焰火筒，这时候，我肚子里就会有一种异样的蠕动，就像在学校里听到打钟时那样。 (Translated by Li, 2019, pp. 98–99)

(Literal translation: All day long, as the train zigzags through the oncoming mountains, along a crag, you no longer feel that it is moving, but only hear the labored groans of the exhaust pipes and wheels. Seeing the endless rising mountains gradually blend into the dark sky, I can't help thinking of home, the desolate little station, the muddy road, the Black people, and country folks who jostled in the

square with their bags of toy monkeys, toy cars, candies, and the fireworks sticks sticking out of the pockets. Then I get a strange wriggling in my stomach, like when I heard the clock strike at school).

Example 2

ST: 然而深夜, 就在大麦地处在沉沉的熟睡之中时, 天色突变, 不一会儿, 有狂风从天边呼啦啦滚动而来。那狂风犹如成千上万匹黑色怪兽, 张着大嘴, 卷着舌头, 一路呼啸着。所到之处, 枯枝残叶、沙尘浮土, 统统被卷到了空中, 纷纷扬扬地四处乱飘。桥板被掀到了河中, 小船被掀到了岸上, 芦苇在咔吧咔吧地断折, 庄稼立即倾覆, 电线被扯断, 树上的鸟窝被吹散, 枝头的鸟被打落在地上……世界立刻面目全非。 (Cao, 2005, p. 93)

(Literal translation: But late at night, while Barley Land was in a deep sleep, the sky changed, and soon a strong wind began rolling down from the horizon. The wind roared like thousands of black monsters, their mouths wide open and tongues rolling. Wherever it went, the dead branches, leaves, dust, and floating earth were all swept into the air, drifting disorderly. The bridge panels were thrown into the river, the boats were thrown onto the shore, the reeds were broken in a click, the crops were immediately overturned, the power lines were torn off, the bird nests on the trees were blown apart, and the birds on the branches were knocked to the ground… The world immediately changed beyond recognition).

TT: But deep in the night, when the villagers were fast asleep, the weather changed, and in no time at all, a wild wind hurtled in from the horizon, swirling and thrashing like an army of screaming black demons, their mouths gaping, their tongues flicking. It crashed over the land, stripping branches and leaves from the trees. It swept along the ground, whipping sand and dust into the air. It was like demons let loose in the night. It ripped the planks from the wooden bridge and hurled them into the river, crashed little boats into the bank, snapped the reed stalks, knocked over the crops, tore down the electricity cables, blew the birds' nests out of the trees and the birds to the ground … and changed the world beyond recognition. (Translated by Wang, 2015, p. 142)

In example 1 and example 2, Quentin's trip in Virginia from south to north and Damaidi's hurricane disaster scenario represented in TT are identical in terms of the structures and their relations to the geospaces of ST. These geospaces are shared by the geographical conceptual systems of SL and TL, making it possible for the translator's Li Wenjun and Helen Wang to retain the geographical reality and imagination in TT. In example 1, Faulkner, the author of *The Sound and the Fury*, admitted that his small hometown of Mississippi was worth writing about. The two secondary spaces in the ST geospace have distinct space times, but they occur synchronously due to Quentin's nostalgia. One is made up of the railroad's industrial noises and the mountains that line the North-South border. The other, where Quentin spent his early years, consists of the desolate station, the muddy road, the packed square, the Black people, and the rural residents. Because of the similar experience of industrialization in China in the 1970s and 1980s, the ST geospaces and their space-time pattern are retained by the translator Li Wenjun. It discloses to the readers of TT Faulkner's sympathy with southern traditions destroyed by the industrial civilization of America in the 1910s. The retention strategy can be found in example 2. The geospace of "大麦地" (Barley Land) is

derived from the author Cao Wenxuan's embodied experiences in his hometown, Yancheng Jiangsu. By inverting the subject-predicate structure in TT, London-based translator Helen Wang preserves the dominant spatial role of "a wild wind" in destroying the residential space. The hurricanes occasionally occurred in the geographical histories of Northern Jiangsu and London, which caused horribleness in both residents. Based on the similarly embodied cognition gained from their surroundings, the readers of TT can engage in both geographical exploration and esthetic appreciation through the geospaces of TT in example 1 and example 2. "Translation only alters the way knowledge is represented, not the structure of knowledge itself," and what TT generates is "structured translational knowledge" (Yu and Fu, 2022, p. 25).

Nevertheless, the environmental components on the ground surface maintain a relative consistency of the characteristics in one dimension while showing obvious differences or evolutions in another. These territorial differences inevitably result in the agent's interactive experiences with the environment. Under these circumstances, the conceptual system of ST geospace is either absent in or opposite to that of TL, thus requiring the employment of other translation strategies.

Geospaces absent in the geographical conceptual system of TL: Reconstruction. When the geospace of ST is absent in the geographical conceptual system of TL, the translator typically uses the reconstruction strategy to recreate the author's regional embodied cognition. Given the fact that environmental conditions are unavoidably diverse in most cases, the geospaces that are present in the geographical conceptual system of SL do not exist in that of TL. To facilitate cross-cultural communication between the readers of TT and the author, some translators strive to reconstruct rather than delete or dilute the geospace of ST, particularly from the spatial size in the TL geographical conceptual system.

Example 3

ST: 西沟有二里长。沟底宽宽的平平的, 还常年有股活水。那水弯弯曲曲的在沟底绕着流, 像蛇。贵举老汉有时候把他的牲口赶到这儿放。这儿的草长得像韭菜, 吃完又长, 吃完又长。

沟底还有几处杨树林。树长得不粗, 细细的往高冒。有些树头都已经超过了三丈多高的沟崖畔。好多的雀儿在树头上喳喳叫。 (Cao, 2007, p. 96)

(Literal translation: West Gully is one kilometer long. The bottom of the gully is wide and flat, and there is still a stream of living water all year round. The water curled around the bottom of the ditch, like a snake. Old Guiju sometimes drives his livestock here. Here the grasses are like leeks, growing back after being eaten.

There are several poplar forests at the bottom of the ditch. The trees do not grow thick, but thin to the highest. Some tree heads are above the nine-meter-high cliffs of the gully. A lot of sparrows chirped on the tree.

TT: West River was four kilometers long, was wide, and had a flat bottom, and water ran in it all year. The water flowed, meandering down the riverbed, resembling a snake. Sometimes Old Guiju grazed his animals there. The grass grew as high as chives and always grew back, grew back after being grazed.

A number of poplar groves grew at points in the bed of the river. The trees grew thin and tall. Some of the trees grew taller than nine meters out of the riverbed. Lots of sparrows

were heard twittering in their limbs. (Translated by Balcom, 2009, p. 95)

Cao Naiqian, a writer from Shanxi Province, constructed the Wen Clay Caves using the geographical realities of his hometown, the Yanbei Plateau which is situated in the northeast of the Loess Plateau. The sparse vegetation, heavy precipitation in summer, soil erosion, and gullying have led to poverty in most of the Yanbei Plateau. In example 3, the geospace of "西沟" (West Gully) has a stream of living water all year round at the flat bottom, plenty of chive-like grass, and towering poplar groves, making it a rare heaven for local agriculture. The sizes of the gully, the ditch, the poplar trees, and the cliffs are all measured in Chinese units. However, American translator John Balcom, who grew up in a different environment, is used to measuring the surroundings in metric or imperial units. In the geospace of TT, the stream at the bottom measuring "二里" (1 km) in length was transformed into the river measuring "four kilometers" in length. The polar trees along the streambed, which are "三丈多" (over 10 m) long in ST, are cut down to those "nine meters out of the riverbed". The change of units renders the TT geospace an unanticipated result. It aligns with the TT readers' habitual perception of geographical distance. In this way, Balcom reconstructs the geospace of "West River" in the geographical conceptual system of TL. With the social conditions of the Wen Clay Caves in the introduction (Balcom, 2009, pp. IX–X), the readers of TT envision through the size of the TT geospace how hard residents make a living in the Wen Clay Caves, as the tall poplar trees strive in the geospace of "西沟" (West Gully). Balcom's representation of the life spirit in the Wen Clay Caves holds universal significance beyond the regionalism of ST. This helps the readers of TT understand why Cao Naiqian is recommended as one of the top writers in China by Goran Malmqvist, a senior member of the Nobel Prize panel for literature selection. Similar to Balcom's geospace translation, Lyell reconstructs the sizes of the geospaces in Lu Town, which are related to Shaoxing Zhejiang, Lu Xun's birthplace.

Example 4

ST: 到得坟地, 果然, 河水只是咬进来, 离坟已不到二尺远。可怜的坟, 两年没有培土, 也平下去了。(Lu, 1961, p. 27)

(Literal translation: When they reached the grave, surely, the river just bit in, less than one meter away from the grave. The poor grave, which had not been hilled up for two years, was leveled).

TT: When we got to the gravesite, sure enough, the river water had eaten away at the bank until it was less than two feet from the mound. And what a pitiful little grave mound it was, too. No one had added any dirt to it for over two years, and it was pathetically flat. (Translated by Lyell, 1990, p. 247)

In example 4, the author Lu Xun constructs the geospace of the grave to be destroyed by the flooding river. As the grave is widely acknowledged as a geospatial image that merges realities with personal or public memories (Foucault, 1986, p. 25), the geospace of ST presents Lu Xun's compassion for the ancient spirits buried by the collective frustration of the returning warlord after the May Fourth Movement in 1919. Based on the imperial units of measurement, American translator William A. Lyell shortened the distance between the mound and the river from "二尺" (0.67 m) in ST to "two feet" (0.61 m) in TT. Thanks to the reconstructed geospatial size, the TT readers' habitual perception

of the geographical distance supports them in easily visualizing the grave being eroded by the river. Furthermore, the closer proximity in the geospace of TT has an unexpected consequence, given that cemeteries in Western culture are typically found in residential areas like gardens or churchyards. With the help of the context and the introduction about what happened in China after 1919 (Lyell, 1990, pp. XIX–XXII), the readers of TT can discern Lu Xun's anxiety about the scene where the local spirit is about to be devastated by the general confusion at that time. The cultural foundation and Lu Xun's environmental attitudes are reconstructed in TT based on the compact size of the geospace. This helps the readers of TT to recognize Lu Xun's concern for lost spiritual traditions based on their embodied cognition of the distance and the grave.

Because the geographical conceptual system of TL lacks these regional geospaces and Chinese units of measurement, Balcom and Lyell adopt the reconstruction strategy to adjust the geospatial size in TT according to metric or imperial units of measurement. Though the exact dimensions of ST geospace have not been accurately replicated, the readers of TT are encouraged to explore the author's spiritual reflections and the ST geospace based on their familiarity with Western culture and habitual perception of geographical distance. The reconstruction strategy is essentially a process in which the translator washes the geographical conceptual systems of ST geospaces and integrates parts of them with geographical knowledge and cultural attitudes from his embodied cognition.

Geospaces contradicting in the geographical conceptual systems of SL and TL: Substitution. The contradiction between the geographical conceptual systems of SL and TL indicates that the agent's embodied experiences can be opposite. In this case, the translator usually replaces the geographical form (such as focus, scale, viewpoint, etc.) in the target language with a contradictory one in the geographical conceptual system of TL. The substitution strategy can be applied to translate the geospace contradicting in the SL and TL geographical conceptual systems. Consequently, the translator significantly converts the geographical reality and imagination originating from the author's embodied cognition into the geospace of TT.

English and Chinese people exhibit different geospatial cognition patterns, despite abstract geographical structures and identical physiological organs. Zhang (2002, p. 13) found that whereas English people get used to observing the geospace from the target to the reference, Chinese people become accustomed to viewing it from the reference to the target. As for the perceptible scale of private spaces, Lefebvre (1991, p. 363) argued that Easterners are accustomed to relying on open spaces or their easily movable composition, while Westerners often depend on buildings or heavy or even fixed objects. Therefore, the geospatial focus and the identifiable features, which imply the author's attitude towards spatial activities in the special period, are always displaced by the translator in TT.

Example 5

ST: 从河的下游, 驶上来一艘漆成红蓝双色的铁皮机动船。船上的机器发出急促的"波波"声响, 让人感到一种莫名的焦灼和恐慌。河水湍急, 船逆流而上, 行进迟缓。船头激起很大的白浪花, 两道田塍般的细浪, 从船体两侧分开, 然后又渐渐合拢。(Mo, 2012, p. 102)

(Literal translation: Down the river came a steel motorized boat painted red and blue. The ship's machinery ran rapidly and made a rapid "bobo" sound, which made people feel strangely anxious and panicked. The river flowed fast, while

the boat moved upstream and slowly. The bow of the ship stirred up a large white spray. Two small waves, like ridges of fields, were separated from both sides of the hull, and then gradually merged).

TT: A motorized red and blue boat chugged towards us from downstream, the sound of its engine instilling in us a hard-to-describe sense of anxiety, panic even. The boat was straining against the rapid flow, its bow throwing up whitecaps and plowing thin ridges right and left that filled back in little by little. A layer of blue mist floated atop the surface of the river, the smell of diesel fuel spread to our lips. A dozen seagulls glided along behind the boat. (Translated by Goldblatt, 2014, p. 120)

In Example 5, Aunt intercepted the offending pregnant woman by boat in the center of the river, which puts an end to the romantic and idle scenes in the previous text, such as Wang Renmei's father fishing on the river, Wang Gan's lyrical monologue of having a secret crush on Aunt, etc. Aunt's arrival changed the once lively river into a solemn and blood-filled one. Through the subject-predicate inversion in TT, Goldblatt shifts the geospatial focus from the river to the motorized boat. The substituted geospatial cognitive order of "the boat to the river" in TT adheres to the pattern of English readers in identifying the geospace from the target to the background. The TT readers' attention is drawn first to the boat, the private space created by the Gaomi government for the aggressive implementation of the family-planning policy, and then to the river, the public space gathering residents' rights to live a peaceful and free life. Besides, Goldblatt emphasizes its heavy hull and slow movement with the words "chugged" and "straining" in TT, making Aunt's boat a typical Western private space. Thanks to the substituted focus and the highlighted features, the readers of TT pay more attention to how Aunt's private space actively invades and even destroys the public space that belongs to the villagers. As Lefebvre (1991, p. 362) proposed, the private space asserts itself vigorously, and always in a conflictual way, against the public space. The geospatial focus on the river in ST implies Mo Yan's concerns about the public suffering of life, humanity, and emotion in the era of family-planning policy and Gaomi's population explosion. However, by converting the geospatial focus, Goldblatt rewrites Mo Yan's claim that *Frog* is not for exposing the cruelty of the family-planning policy (Mo, 2020, p. 10). The geospace of TT highlights the violence in controlling the population of Gaomi, catering to American readers' preference for Chinese novels with political themes (Ji, 2009, pp. 46–47) as well as the satirical works that critique the government (Luo, 2008, pp. 120–121).

Along with the geospatial focus and the essential elements, the geospatial perspective—the way the narrator organizes and presents the geographical scenes—is also contradictory in the geographical conceptual systems of SL and TL. Such contradiction occurs because the translator, immersed in different civilization stages or types, has contradictory spatial practices from those of the author. The translator always substitutes the perspective of the ST geospace with one that conforms to the habitual geospatial cognitive mode of the reader of TT.

Example 6

ST: 我们沿着那座刚竣工不久的斜拉钢桥上的人行道越过大河。桥上来往的车辆中有很多"宝马"、"奔驰"。大桥造型风流，宛如海鸥展翅。过桥后，右侧是大都会高尔夫球场，左侧便是远近闻名的娘娘庙。(Mo, 2012, p. 182)

(Literal translation: We crossed the river along the sidewalk on the newly completed cable-stayed steel bridge. There are

many "BMWs" and "Mercedes" on the bridge. The bridge looks fashionable like a seagull spreading its wings. After crossing the bridge, we saw the metropolitan Golf Course on the right and the famous Niangniang Temple on the left).

TT: We crossed on the pedestrian walk of the recently completed cable bridge, on which BMW and Mercedes sedans were common sights. It was an elegant, gull-winged bridge that ended with the golf course to the right and the renowned Temple of the Fertility Goddess to the left. (Translated by Goldblatt, 2014, p. 214)

In example 6, "Northeast Gaomi Township" became a metropolis of high-rise buildings and developed traffic thanks to the reform and opening-up policy of China. But "objects of the past" still existed, demonstrating Mo Yan's nostalgia for the core of Gaomi cultural traditions, Qi culture (Guan et al., 2012, p. 33). Mo Yan constructs the city geospace in ST by having the characters walk through various landscapes, such as "the cable bridge", "the golf course" and "the Temple of the Fertility Goddess". They are arranged in a way that reflects Mo Yan's depression about the impact of urbanization and globalization on local cultural traditions. "The golf course" and "the Temple of the Fertility Goddess" are located near the bridgehead node and require the characters to walk left or right. They are the markers whose level of imagery, or the agent's impression, is thereby greatly enhanced (Lynch, 1960, p. 81). The walking spatial practice, according to French philosopher Certeau (2011, p. 97), helps the agent find the "invisible city" that cartographers and urban planners often overlook. The walker's perspective in ST more vividly illustrates how dissatisfied Mo Yan is with Gaomi's rural traditions, represented by "the Temple of the Fertility Goddess", quickly losing dominance due to the infiltration of Western modern urban civilization like "the golf course". However, the emotional contagion of Mo Yan is not readily duplicated in the geospace of TT. Goldblatt derives his environmental attitudes from the hybrid American cultural environment and Western modern urban civilization. As Lefebvre pointed out, the dominant ideology of the contemporary urban capitalist society is "architecture ideology". Its appearance is pure, neutral, and scientific, obscuring the power at its core. Any individual will or subjective emotion is excluded, both silently and violently (Liu, 2014, p. 21). Thus, distinct cultural geography leads to contradictory geospatial perspectives in the geographical conceptual systems of SL and TL. By starting the emphatic sentence with "the bridge", Goldblatt gives the TT readers a bird's-eye view of "the golf course" and "the Temple of the Fertility Goddess". Mo Yan's horizontal view of a walker is replaced by Goldblatt's overhead view of a cartographer or city planner. The geospace of TT highlights that "Northeast Gaomi Township" is a modern city with a uniform layout that deliberately disregards every resident's daily routine (Certeau, 2011, pp. 92–93). The geographical imagination is converted into an indifference to the embarrassing cultural atmosphere during the period of transition.

The substitution strategy allows the focus, perspective, and other features of the geospace that are contradictory in the geographical conceptual systems of SL and TL to be localized in the geospace of TT. Despite the substituted geospace of TT partially transforming the geographical reality and imagination, it provides suitable conditions for the readers of TT to backtrack their environmental experiences for regenerating attitudes and emotions towards the unvisited geospace.

The cognitive mechanism of the geospace translation
The above investigation reveals that the geospace translation is essentially a negotiating and washing process of the ST geospace
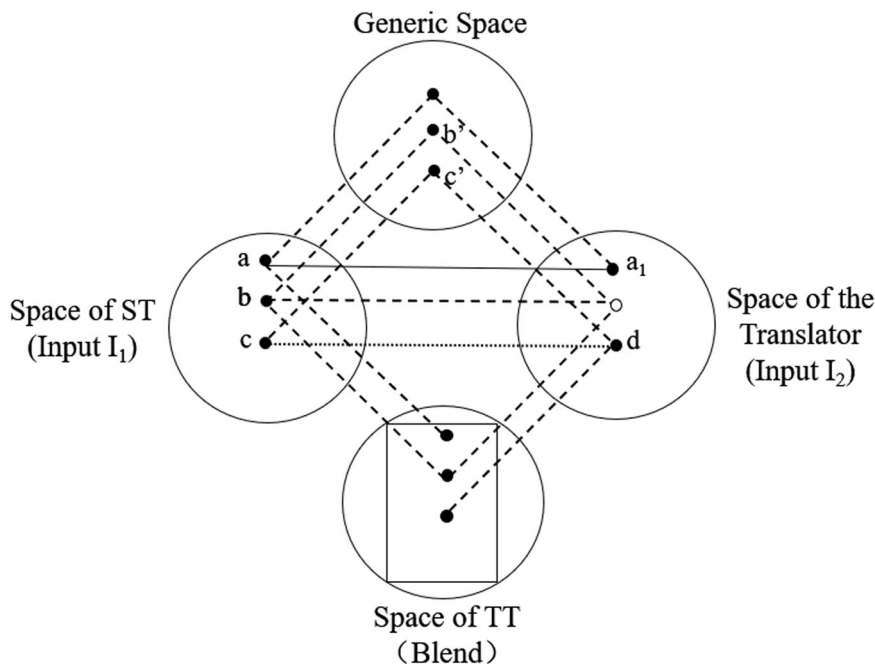
Fig. 1 The cognitive mechanism of the geospace translation.

in the geographical conceptual system of TL. The translator can adopt three geospace translation strategies, i.e., retention, reconstruction, and substitution, to negotiate similarities and differences between the geographical conceptual systems of SL and TL. To clarify the regularities of the translator's space negotiation behind the geospace translation strategies, the article establishes the cognitive mechanism of the geospace translation based on conceptual blending theory (CBT).

To accomplish the routine creative meaning-building tasks, conceptual blending functions as a dynamic, active, and online process in the human mind (Fauconnier, 1997, pp. 181–182). Four mental spaces—two inputs, the generic space, and the blend—make up the basic diagram of conceptual integration. It functions according to a set of governing limitations and dynamic principles (Fauconnier and Turner, 2002, pp. 46–50). Applying CBT in translation studies, some scholars theoretically clarified the dynamic attributes of the translation process (Mandelblit, 1997; Wang, 2001; Yu, 2007) and the role that the translator's subjectivity plays in it (Jin and Lin, 2016). Some scholars, however, established the mechanism of translating specific items, like metaphors (He, 2021) and dimensional antonymous compounds (Wu and Yang, 2021). These studies have firmly verified that structures and elements are interconnected and mediated by conceptual blending during the translation process, where the meaning of ST is regenerated within the context of TT (Wang, 2020, pp. 752–753). The geospace translation that recreates the ST geospace in the geographical conceptual system of TL is no exception. Through conceptual blending, various cognitive frames in different spaces, such as the embodied cognition of the author and the translator, are projected, negotiated, and blended. The cognitive mechanism of the geospace translation is illustrated as follows:

As Fig. 1 shows, the cognitive mechanism is comprised of four spaces. First, there are two input spaces for inputting the necessary information to construct meanings. The first space is the space of ST (Input I_1). It consists of the frames and elements related to geospatial structures, forms, relations, perceptions, and emotions in ST. It provides the translator with the foundation to investigate the author's embodied cognition and geographical conceptual system.

The second space is the space of the translator (Input I_2), which contains geographical perceptions and cultural attitudes derived from the translator's interaction with the material geospace. It supports the translator in understanding and filtering the geographical reality and imagination of the geospace in ST, influencing the degree of restoring or representing the author's embodied experiences.

The third space is the generic space. It underlies the cross-space mappings between two inputs and the basic frame of the blend. During the process of geospace translation, the translator aims to enlarge the generic space of the same physiological organs, sensory perceptions, and geographical structures. It ensures that the space of TT fits well with the space of ST on the abstract aspects of thoughts, emotions, and so on.

The projections from I_1 and I_2 combine and collide through various paths in the fourth space, the space of TT (the blend). The frames in the space of ST are retained, reconstructed, or substituted in the space of TT after being projected among the mechanism. Through composition, completion, and elaboration, the projections yield the emergent structure (displayed in the square) in the space of TT (Fauconnier, 1997, pp. 150–151). The emergent structure refers to the cross-regional and cross-cultural identity of the geospace that the geographical reality and imagination of the ST geospaces are reproduced in the geographical conceptual system of TL.

This mechanism illustrates clearly the translator's mediation between multiple spaces in the process of translating the geospace. The mapping paths underlying the choice of translation strategies are presented in the following sections. According to the cognitive mechanism of the geospace translation (see Fig. 1), the use of geospace translation strategies, i.e., retention, reconstruction, and substitution, depends on different mapping paths among the spaces of ST, TT, and the translator. These mapping paths draw out the hidden regularities of the translator's negotiating and washing process to represent the geographical reality and imagination of the ST geospace in the geographical conceptual system of TL.

Retention: mirror mappings from the space of ST. As stated above, the retention strategy is employed to translate the geospaces

present in both geographical conceptual systems of SL and TL, or more precisely, to trigger the same cognitive frameworks—shared geospatial structures and perceptions—in the spaces of the translator and ST. The translator establishes the mirror mapping path from the space of ST if frame a in the space of ST and frame a_1 in the space of the translator are counterparts with the same value (shown in the full horizontal line connecting solid points a and a_1). In this case, the translator projects the geospatial frames from the space of ST into the space of TT without any modification. Examples 1 and 2 show how Li Wenjun and Helen Wang project the geospaces from the space of ST into the space of TT. The geospatial structures include the mountains, the bleak station, the muddy road, the square, the wind, the land of Damaidi, the river, and the crops, along with their relations present in the conceptual systems of SL and TL. The historical geography and the geospatial imagination in ST and TT are as consistent as the plane mirror imaging. Thanks to the translator's mirror mappings from the space of ST, the readers of TT can construe the exotic scenery of the geospace, as well as the author's geospatial imagination of its space-time pattern and spatial role. The retention strategy, therefore, ensures that the geospaces in TT provide the reader of TT with intact geographical exploration and esthetic enjoyment.

Reconstruction: double-domain mappings from the spaces of ST and the translator. The reconstruction strategy is employed to recreate the geospace that is absent in the geographical conceptual system of TL. This indicates that frame b in the space of ST cannot locate a counterpart in the space of the translator (shown in the horizontal dashed line connecting solid point b and the hollow point). But it does not render these geospaces untranslatable. By projecting the abstract frame b', such as super-ordinate categories, and shared cognitive abilities, in the generic space, the translator secures in I_2 the geographical or cultural element of TL equivalent to the abstract frame of the geospace in ST and projects it into the space of TT to blend with frame b for negotiating the ST geospace and its conceptual system. The reconstruction strategy thus stems from the double-domain mappings from the spaces of ST and the translator.

In examples 3 and 4, since some ST geospace and Chinese units of measurement are absent in the geographical conceptual system of TL, the translator projects and blends the geospatial components from the geospace of ST and the metric or imperial units of measurement from the space of the translator, so as to reconstruct the spatial size and its relevant natural features or cultural connotations of ST geospace in TT. The reconstructed geospace of "West River" integrates specific landforms and poplar trees of the Yanbei Plateau from the space of ST and the metric units of measurement from the space of the translator. The size of the geospace of "西沟" (West Gully) is reconstructed intentionally or unintentionally so as to conform to the distance perception of the TT readers. Cao Naiqian's praise for the persistent and optimistic residents in the Wen Clay Caves is reproduced for the readers of TT. In example 4, following the double-domain mapping path, Lyell blends the geospatial relations of the river and the grave from the space of ST and the imperial units of measurement from the space of the translator. Based on the habitual units of measurement and the cultural background of Western cemeteries, the readers of TT can easily empathize with Lu Xun's concern about ancient spirits being buried in social frustration through the reduced distance between the river and the grave.

Thanks to the double-domain projections, the emergent geospatial forms and meanings in the space of TT consist of elements and frames from both the space of ST and the space of

the translator, engaging the reader of TT to obtain the regionalism of ST and empathize with the author's sense of place to some extent. The regional natural qualities and the author's local sentiment conveyed by the ST geospaces are reconstructed in the geographical conceptual system of TL.

Substitution: single-domain mappings from the space of the translator. The single-domain mappings from the space of the translator mean that the translator takes frame c in the space of ST as a reference while projecting frame d from the space of the translator (shown in the horizontal dotted line connecting solid points c and d), which is captured through the geographical schema c' in the generic space, into the space of TT. This single-domain mapping path prompts the translator to adopt the substitution strategy. The reader of TT can explore the author's environmental interaction through the frames in the blend that stir their embodied cognition and geographical conceptual system. In this way, the translator substitutes frame c in the space of ST with frame d of opposite features under the same category in the geographical conceptual system of TL.

Following the single-domain mapping from the space of the translator, Goldblatt negotiates the opposite geospatial cognitive habits of the author and the readers of TT in example 5 and example 6. In translating the geospace of the boat sailing against the river and Mo Yan's geographical imagination, Goldblatt projects the English cognitive habit of "the target to the reference" from the space of the translator into the space of TT but filters out Chinese spatial cognitive pattern and Mo Yan's mercy on the social pain from the space of ST. In addition to stimulating the TT readers' habitual cognitive process, the substituted geospatial focus in TT triggers their geographical imagination, leading them to believe that Aunt's private space fiercely and forcefully carries out the family-planning policy. It satisfies the expectations of the TT readers for political-themed and even contrarian Chinese literature. In example 6, depending on the single-domain mappings from the space of the translator, Goldblatt converts the geospatial perspective from the walker's horizontal view to the bird's-eye view, the typical way of space practice influenced by Western modern urban civilization. Goldblatt discards from the space of ST Mo Yan's cultural perplexity conveyed by the characters walking on the riverside split by "the golf course" and "the Temple of the Fertility Goddess". The altered geospatial viewpoint activates the TT readers' embodied cognition towards the urban environment, especially the cognitive frames of architectural ideology and hybrid culture. Based on the geographical conceptual system of TL, the readers of TT acquire a detached sense of place in "Northeast Gaomi Township" as city planners or cartographers.

The substitution strategy denotes the single-domain mappings from the space of the translator, which offers the space of TT with the requisite but opposite cognitive frames for mobilizing the embodied cognition of the reader of TT, both geographically and culturally. With less and even no cognitive effort, the reader of TT obtains the altered geographical imagination in the familiar geospatial forms taken from the geographical conceptual system of TL. However, the above examples prove that the author's "topophilia", the nostalgia and compassion for a specific place, local traditions, and natives (Tuan, 1990), is diluted or even distorted in the space of TT. Though satisfying the TT readers' expectations, it results in a barrier to communication between the author and the readers of TT concerning the geographical and cultural aspects.

Conclusion
Following the paradigm of cognitive translatology (Muñoz Martín, 2010), this article finds that, throughout the process of translating regional literature, the literary geospace is translated

from ST to TT and drifts from the geographical conceptual system of SL to that of TL. In terms of different personal experiences and physical surroundings, the author's embodied cognition is not likely to be thoroughly duplicated in the context of TT by the translator. In fact, based on his geographical conceptual system of TL, the translator washes and negotiates the geospace of ST and its geographical conceptual system by using three translation strategies, i.e., retention, reconstruction, and substitution. The geographical reality and imagination of the ST geospaces are restored or converted in the geospace of TT to a certain extent. Then the article construes the cognitive mechanism of the geospace translation from the perspective of conceptual blending theory. During the geospace translation, the frames of the ST geospace drift, combine, and transform through different cross-space mappings in these four mental spaces, i.e., the spaces of ST, TT, the translator, and the generic space. Thus, the translator's geospace translation strategies depend on the different mapping paths. The retention strategy results from the mirror mappings from the space of ST. The translator retains the frames of shared geospaces and their relations, which triggers the same embodied cognition of the TT readers. The reconstruction strategy is due to the double-domain mappings from the spaces of ST and the translator. The geospatial components in the space of ST and the metric or imperial units of measurement in the space of the translator are projected simultaneously into the space of TT. The readers of TT are ensured to acquire emergent geospatial forms and meanings with cross-cultural characteristics. The substitution strategy depends on single-domain mappings from the space of the translator. The translator abandons the geospatial cognitive process in the space of ST and maps the contradictory cognitive parameter from the space of the translator into the space of TT, promoting the environmental experience of the readers of TT, which is, at the abstract level, close to that of the author.

In short, the cross-space mappings between these spaces give rise to the translator's geospace translation strategies and demonstrate the regularities of the translator's space mediation in the translation process. The blended geospace can continuously activate the cognitive frameworks of the TT readers, including the embodied cognition of the surrounding environment and the background knowledge provided by the translator, so as to composite, complete, and elaborate the author's geographical reality and imagination in the context of TL. As a result, the space of TT generates the emergent structure—the reterritorialization of geospatial forms and meanings. To put it further, translating the geospace is neither duplicating the framework of the space of ST nor borrowing the structure of the space of the translator merely, but negotiating the multiple spaces that contain the geographical reality and imagination in ST, the author's embodied cognition, the translator's embodied cognition, etc. The translator's purpose in the geospace reterritorialization is not so much to endow the geospace of ST with new cultural and geographical characteristics (Italiano, 2016) but to represent in the geospace of TT the geographical reality and the geographical imagination from the author's regional experience. Only in this way can the local sentiment, the artistic style, and the geographical identity of the author be better appreciated in the TL culture.

Notes

1 Geo-translation studies, initiated by Aijun He and Jianzhong Xu, aim to explore the formation, movement, and distribution regularities of translation phenomena, i.e., translators, translation sites, and translation landscapes from the perspective of geography (Sun and He, 2020, pp. 71–72).

2 "Construal" refers to the interpretation of how the agent perceives the objects or the events. According to cognitive linguistics, theoretical tools include categorization, figure-ground, frame theory, etc. This article mainly applies Fauconnier's CBT to the analysis of the geospace translation.

3 "Geographical identity" refers to the agent defining who and where he or she is in terms of the strong affective ties to the neighborhood and community (Proshansky et al., 1983, pp. 61–62). The translator's geographical identity is determined by the birthplace and the place where he or she conducted translation activities for a long time.

4 "Washing" is the concept in the studies of cognitive metaphors proposed by Wenbin Wang (2007, p. 120). In the metaphor construction, the addresser filters or edits the information from connected inputs according to his knowledge and life experiences. His longstanding judgment on the objects has been brought to full play, cleaning off the irrelevances and maintaining the similarities between the source domain and the target domain.

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Author contributions

JS implemented the research, analyzed the results, and drafted the manuscript. AH designed the study and proofread the manuscript. Both authors reviewed and approved the final manuscript.

Competing interests

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Informed consent

This article does not contain any studies with human participants performed by any of the authors.

Additional information

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