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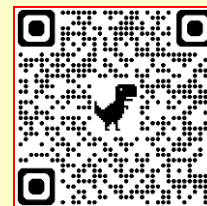
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Temporal Metaphors in English and Chinese: A Cognitive-Linguistic Contrastive Analysis

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ABSTRACT

Temporal experience is abstract and cannot be directly perceived as a bounded physical entity. Conceptual Metaphor Theory therefore provides a useful framework for explaining how speakers understand time through more concrete experiential domains such as space, containers, and economic resources. Although English and Chinese share a number of temporal metaphors, they differ in the ways particular metaphorical mappings are linguistically conventionalized. This study compares four major patterns of temporal metaphor in English and Chinese: front-back orientation, up-down orientation, the container schema, and TIME IS MONEY, with the aim of identifying both shared cognitive tendencies and language-specific differences. Adopting a qualitative contrastive approach grounded in Conceptual Metaphor Theory, the study analyzes representative conventional expressions drawn from the original thesis and the cited literature. These expressions are classified according to source domain and compared in terms of mapping direction, degree of conventionalization, and linguistic function. The findings show that both languages make extensive use of spatial experience to structure temporal concepts, while differing in the conventionalization of particular mappings. English exhibits a relatively stable association between the future and the front and between the past and the back, whereas Chinese front-back terms are more context-dependent, with 前 referring either to an earlier time or to future prospects depending on the construction. Chinese also displays a highly systematic vertical temporal sequence in which 上 typically denotes an earlier time and 下 a later time, while vertical expressions in English are less systematically used for chronological sequencing and are often evaluative rather than temporal. By contrast, the container metaphor shows substantial parallels between the two languages. Both English and Chinese also conceptualize time as a valuable and limited resource, as reflected in expressions such as spend/花, waste/浪费, and save/节省. The comparison supports the view that temporal conceptualization is grounded in recurrent embodied and socio-cultural experience, while linguistic convention plays a crucial role in determining which metaphorical mappings become systematic in a particular language. The findings contribute to contrastive studies of temporal metaphor and have implications for second-language teaching and intercultural interpretation.

KEY WORDS: Cognitive linguistics, Conceptual Metaphor Theory, English-Chinese contrast, Temporal metaphor.

1. Introduction

Metaphor was traditionally treated primarily as a rhetorical device, but Conceptual Metaphor Theory recast it as a basic mechanism of thought. Lakoff and Johnson (1980) argue that abstract target domains are partly structured through mappings from more concrete source domains, and their later embodied account further emphasizes the grounding of conceptual structure in recurrent bodily experience (Lakoff & Johnson, 1999). Time is especially suitable for this framework because it is abstract, transient, and not directly available to the senses in the way that physical objects and spatial relations are. Speakers therefore routinely use spatial and material vocabulary to reason and communicate about temporal relations. Clark (1973), for example, showed the close interaction of spatial and temporal semantics, while subsequent cross-linguistic research has demonstrated that spatial organization is a widespread source for temporal conceptualization.

The central theoretical issue is not whether languages metaphorize time, but how particular languages conventionalize the available mappings. English and Chinese both employ front-back expressions, vertical expressions, containment relations, and resource-related expressions when referring to time. Nevertheless, the distribution and function of these patterns differ. English readily locates future events “ahead” and past events “behind,” whereas Chinese permits 前 to refer to both an earlier temporal position, as in 以前 ‘before’ and 前天 ‘the day before yesterday,’ and future-oriented prospects, as in 前途 ‘future/prospect’ and 前景 ‘prospect’. Chinese also makes systematic use of 上 ‘up’ for earlier periods and 下 ‘down’ for later periods, a pattern without a direct grammatical or lexical counterpart in English. Such contrasts make English and Chinese a productive pair for examining the relationship between shared embodied experience and language-specific conventionalization.

Earlier studies provide both a theoretical foundation and an empirical context for this comparison. Alverson (1994) documented the widespread use of spatial metaphors for time across English, Mandarin, Hindi, and Sesotho, supporting a broad TIME IS SPACE tendency while also noting cross-linguistic differences. Boroditsky (2001) argued that habitual linguistic patterns in English and Mandarin can influence temporal reasoning, particularly in the contrast between horizontal and vertical organization. Later work complicated this strong interpretation. Boroditsky, Fuhrman, and McCormick (2011) reported both chronic and immediate effects of spatial-temporal language, whereas Chen (2007) failed to replicate some of the earlier findings. These mixed results make it important to distinguish linguistic patterning from claims about non-linguistic cognition. The present article therefore concentrates on conventional linguistic expressions and does not infer psychological effects from linguistic differences alone.

Cross-linguistic work also demonstrates that a single embodied domain does not force a universal directional mapping. Núñez and Sweetser (2006), for instance, showed that Aymara can place the known past in front and the unknown future behind. This finding is particularly relevant to English-Chinese comparison because it cautions against treating the English future-ahead pattern as cognitively inevitable. Within Chinese scholarship, studies of vertical temporal terms have similarly emphasized the systematic mapping of 上 and 下 onto temporal sequence (Lan, 1999; Xu, 2008), while Qin (2020) discusses both shared and language-specific features in English and Chinese spatial representations of time.

Against this background, the present study has two objectives. First,

it condenses the original degree thesis into a focused journal-article argument by comparing four representative metaphor types: front-back temporal metaphors, up-down temporal metaphors, container temporal metaphors, and TIME IS MONEY. Second, it clarifies which contrasts are robustly linguistic and which conclusions should remain limited by the non-corpus-based nature of the data. The article asks three questions: (1) Which conceptual mappings are shared by English and Chinese? (2) Where do the languages differ in directional consistency, conventionalization, or function? and (3) What do these patterns suggest about the interaction between embodied experience and linguistic convention?

2. Method and Materials

2.1 Research design and theoretical framework

The study uses a qualitative contrastive-linguistic design. Conceptual Metaphor Theory provides the analytical framework, with a conceptual metaphor represented as a mapping in which a relatively concrete source domain structures selected aspects of an abstract target domain (Lakoff & Johnson, 1980). The analysis also draws on the distinction between orientational metaphors, ontological or container metaphors, and structural metaphors. In this study, front-back and up-down patterns are treated as orientational mappings; the bounded-period pattern is treated as a container schema; and TIME IS MONEY is treated as a structural mapping in which economic concepts organize reasoning about temporal value and allocation.

The article does not report an experiment or a new corpus study. Accordingly, “materials” refers to linguistic data rather than physical instruments. The material consists of conventional English and Chinese expressions retained from the original thesis and supported by the cited literature. The examples were selected because they instantiate one of the four target metaphor types and because their temporal interpretation is conventional rather than dependent on an isolated literary context. This approach is appropriate for identifying qualitative mapping patterns, but it does not support frequency-based claims.

2.2 Linguistic materials

For front-back metaphors, the English material includes expressions such as the years ahead, look forward to the future, back in the old days, leave the past behind, and fall behind schedule. The Chinese material includes 以前 ‘before’, 前天 ‘the day before yesterday’, 前途 ‘future/prospect’, 前景 ‘prospect’, 以后 ‘afterwards’, and 后天 ‘the day after tomorrow’. These examples allow comparison between deictic direction, sequence, and future-oriented evaluation.

For vertical metaphors, the English examples include upcoming events, up to now, high season, low season, and down the line. The Chinese examples include 上周 ‘last week’, 下周 ‘next week’, 上个月 ‘last month’, 下个月 ‘next month’, 上半年 ‘the first half of the year’, 下半年 ‘the second half of the year’, 上半场 ‘the first half of a game’, and 下半场 ‘the second half’. The Chinese set is especially useful because 上 and 下 recur productively across temporal units, whereas the English set illustrates a looser and functionally heterogeneous use of vertical vocabulary.

For container metaphors, English expressions include in 2026, in the future, within three days, during the summer, and entering a new era. Chinese parallels include 在2026年 ‘in 2026’, 在未来 ‘in the future’, 三天内 ‘within three days’, 在暑假期间 ‘during the summer vacation’, and 进入新时代 ‘enter a new era’. Previous

work on spatial prepositions and metaphor supports treating bounded temporal intervals as conceptual containers (Boers, 1996; Radden, 2005), and Chinese-English comparisons have likewise identified substantial similarity in container-based temporal construal (Liu, 2009; Yue & Wang, 2001).

For TIME IS MONEY, the English examples include spend time, waste time, save time, budget time, invest time, lose time, and be worth one's time. The Chinese examples include 花时间 'spend time', 浪费时间 'waste time', 节省时间 'save time', 投入时间 'invest/devote time', and 值得花时间 'be worth spending time on'. These expressions instantiate the mapping of economic actions and value judgments onto temporal management. The pattern is central to Lakoff and Johnson's (1980) discussion of structural metaphor and has been examined as a cross-linguistic conceptual pattern by Vuletić (2011). Chinese studies also recognize the economic-resource model as a recurrent source for time expressions (Liu, 2001; Wang, 2011).

2.3 Analytical procedure

The analysis proceeded in three steps. First, each expression was assigned to a source-domain category: horizontal orientation,

vertical orientation, containment, or economic resource. Second, the direction and function of the mapping were identified. For orientational metaphors, the analysis asks whether a spatial term systematically corresponds to earlier/later or past/future time. For container metaphors, it asks how linguistic forms construe temporal boundaries, interiority, or entry. For TIME IS MONEY, it identifies which economic operations—spending, saving, wasting, investing, valuing, or exhaustion—are transferred to temporal experience. Third, English and Chinese patterns were contrasted with respect to (a) shared conceptual structure, (b) consistency of mapping, and (c) linguistic function.

Because the data are illustrative rather than frequency-controlled, the analysis uses cautious terms such as “systematic,” “conventional,” and “more flexible” only where the examples and cited studies support them. Claims about the relative frequency of particular expressions, genre differences, or real-time cognitive processing are outside the scope of the present data.

Table 1. Summary of the contrastive patterns

Metaphor type	English	Chinese	Main contrast
Front-back	Future ahead; past behind	前 may mark earlier time or future prospects; 后 marks later time in common temporal forms	Shared axis; Chinese mapping is more frame-dependent
Up-down	Limited and functionally mixed vertical expressions	上 = earlier; 下 = later across many time units	Strongest asymmetry
Container	in, within, during, enter	在, 内, 期间, 进入	High conceptual similarity
TIME IS MONEY	spend, waste, save, budget, invest	花, 浪费, 节省, 投入	High structural similarity

3. Results and Discussion

3.1 Front-back temporal metaphors: shared embodiment, different directional stability

Both English and Chinese use the front-back axis to structure time. In English, the most salient pattern places the future in front of the observer and the past behind. Expressions such as the years ahead and look forward to the future recruit the ordinary bodily experience of facing and moving forward: what has not yet been encountered is located in the direction of prospective movement. Conversely, back in the old days and leave the past behind locate completed experience behind the observer. This pattern is consistent with the moving-ego framing discussed in research on spatial reference frames for time (Moore, 2014) and with Conceptual Metaphor Theory's broader claim that bodily orientation provides source structure for abstract domains (Lakoff & Johnson, 1980).

English also extends front-back organization to temporal evaluation and scheduling. In fall behind schedule, for example, behind does not simply mean “past”; it locates an activity at a later-than-expected position on an ordered path. The metaphor therefore relies on a temporal sequence modeled as spatial progression. The important point is that English front/back vocabulary tends to preserve a coherent relation among forward motion, prospective time, and ordered progress, even though individual expressions may highlight different aspects of the schema.

Chinese shares part of this pattern but conventionalizes it less uniformly. The expressions 前途 and 前景 place future possibility metaphorically “in front,” closely resembling the English future-ahead pattern. Yet 前 also denotes earlier time in 以前 and 前天. In these forms, 前 is better understood relative to sequence: an earlier point is “before” a later reference point. The same lexical item can therefore participate in two frames. One frame is ego-centered and prospective, in which the future lies in front; the other is sequence-centered, in which an earlier item precedes a later item. 后 is similarly associated with later time in 以后 and 后天. This duality explains why a simple equation such as “前 = future” would be inaccurate for Chinese.

The contrast is not evidence that English and Chinese possess entirely different concepts of time. Rather, both exploit the same bodily-spatial resource but conventionalize different reference frames. Qin (2020) likewise notes both shared horizontal tendencies and distinctive patterns in English and Chinese. More broadly, Núñez and Sweetser's (2006) analysis of Aymara shows that front-back mappings depend on culturally and linguistically conventionalized perspectives rather than on a single inevitable embodiment. The English-Chinese comparison therefore supports a constrained universality account: bodily orientation makes front-back mapping available, but language-specific lexical systems determine how that mapping is organized.

3.2 Up-down temporal metaphors: a major asymmetry

The strongest contrast in the data concerns vertical orientation. Chinese uses 上 and 下 as highly conventionalized temporal sequence markers. 上周, 上个月, and 上半年 all refer to an earlier period relative to a reference point, while 下周, 下个月, and 下半年 refer to a later period. The same organization appears in event structure, as in 上半场 and 下半场. The mapping can therefore be summarized as UP/上 → EARLIER and DOWN/下 → LATER. Lan (1999) and Xu (2008) describe this mapping as a characteristic feature of Chinese spatial-temporal metaphor.

This system is notable because its main function is sequential rather than evaluative. In 上周, 上 does not mean that last week is superior, higher in status, or more intense; it marks temporal ordering. The pattern is also productive across multiple temporal nouns. That productivity gives the Chinese vertical system a degree of lexical and constructional regularity absent from the English examples considered here.

English does contain vertical lexical items in temporal expressions, but the mappings are heterogeneous. Upcoming events refers to future events, yet the up element does not create a general rule by which “up” marks later time. Up to now traces extension toward a temporal limit, while high season and low season use vertical adjectives primarily to encode intensity or level of activity. Down the line refers to a later point in a sequence, but English does not permit forms such as up week for ‘last week’ or down month for ‘next month’. Consequently, the presence of vertical words in English should not be treated as equivalent to the Chinese 上/下 system.

This linguistic asymmetry has played an important role in research on language and thought. Boroditsky (2001) reported evidence that Mandarin speakers’ temporal reasoning can be affected by vertical spatial organization, whereas Chen (2007) failed to replicate some of the earlier experimental effects. The present linguistic analysis does not resolve that psycholinguistic debate. It does, however, establish the linguistic premise on which the debate rests: Chinese conventionalizes vertical temporal sequence more systematically than English. The appropriate conclusion is therefore about language structure, not about an automatic or deterministic difference in cognition.

3.3 Container temporal metaphors: strong cross-linguistic convergence

Container metaphors display much greater similarity. In Conceptual Metaphor Theory, the container schema derives from recurrent embodied experience with bounded regions that have an inside, a boundary, and an outside (Lakoff & Johnson, 1980, 1999). When this schema is mapped onto time, a temporal interval can be conceptualized as a bounded region within which events occur.

English prepositions make this structure explicit. In 2026 locates an event inside the conceptual boundary of a year. Within three days foregrounds a limiting boundary, and during the summer identifies an interval in which an event is temporally situated. Motion into a bounded region can also structure temporal change: entering a new era treats an era as a space that a person or society can enter. Analyses of spatial prepositions show how such forms extend from physical relations to abstract temporal organization (Boers, 1996), while cross-linguistic work suggests that containment is a recurrent resource for temporal construal even though languages differ in their grammatical devices (Radden, 2005).

Chinese uses closely comparable forms. 在2026年 and 在未来 locate events with respect to a temporal interval; 三天内 explicitly marks an interior bounded by a three-day limit; 在暑假期间 profiles an interval; and 进入新时代 maps spatial entry onto the beginning of a period. The formal resources differ from English—Chinese uses items such as 在, 内, 期间, and 进入 rather than the English prepositional inventory—but the conceptual organization is parallel. Chinese comparative studies have similarly treated container mappings as an area of strong English-Chinese correspondence (Liu, 2009; Yue & Wang, 2001).

This convergence is theoretically important because it shows that cross-linguistic difference is not equally distributed across metaphor types. The front-back and especially the up-down domains reveal differences in directional conventionalization, but container metaphors show a shared image-schematic structure with relatively straightforward formal correspondences. The result supports a layered view of metaphor: recurrent bodily experiences can motivate highly similar conceptual structures, while grammatical and lexical systems determine how those structures are encoded.

3.4 TIME IS MONEY: common resource logic with language-specific lexicalization

The structural metaphor TIME IS MONEY provides another area of substantial convergence. Lakoff and Johnson (1980) use expressions such as waste time and spend time to show that modern speakers can conceptualize time through a system of economic actions. The mapping is systematic because multiple relations from the source domain are transferred together: money can be spent, saved, wasted, budgeted, invested, lost, and evaluated; time can be described with the same operations. Vuletić (2011) further distinguishes related notions such as TIME IS A VALUABLE COMMODITY and TIME IS A LIMITED RESOURCE.

English expressions illustrate this resource logic clearly. To spend two hours on a report construes a duration as an allocable quantity. To save twenty minutes treats a shorter route as preserving a valuable resource. Budget your time presupposes limited availability requiring planned distribution, while invest time suggests present allocation in expectation of later benefit. Worth your time adds explicit value assessment. These expressions do not merely substitute one word for another; together they support a coherent way of reasoning about temporal scarcity and utility.

Chinese lexicalizes much of the same system. 花时间 uses the ordinary verb for spending to describe temporal allocation. 浪费时间 and 节省时间 parallel waste time and save time, while 投入时间 conceptualizes sustained temporal commitment as an investment or input. 值得花时间 likewise evaluates whether an activity merits the allocation of a limited resource. Chinese scholarship has long identified resource and money-based metaphors among important ways of conceptualizing time (Liu, 2001; Wang, 2011). The similarity does not require every English expression to have a word-for-word Chinese equivalent; what is shared is the higher-level inference that time is measurable, limited, valuable, and subject to allocation.

The original thesis treats this metaphor as highly similar across English and Chinese, and the present condensed analysis supports that conclusion. The comparison should nevertheless be stated at the level warranted by the data. The examples show shared conceptual organization, but they do not establish that English and Chinese speakers use each subtype with identical frequency or social

meaning. Such questions would require balanced corpora and systematic metaphor identification procedures. The present finding is therefore one of structural similarity rather than quantitative equivalence.

3.5 Overall pattern: universality and conventionalization

Taken together, the four metaphor types reveal two levels of cross-linguistic organization. At the first level, English and Chinese repeatedly draw on concrete experience to structure abstract time. Spatial axes, bounded regions, movement, and resource management all provide source-domain organization. This commonality is consistent with the core insight of Conceptual Metaphor Theory that abstract conceptualization is anchored in more concrete experience (Lakoff & Johnson, 1980, 1999).

At the second level, the languages conventionalize these resources differently. The container and economic-resource metaphors are strongly parallel, while orientational metaphors show greater divergence. English has a comparatively stable future-ahead/past-behind tendency, whereas Chinese front-back expressions reflect more than one reference frame. Chinese additionally grammaticalizes or lexicalizes vertical sequence through 上 and 下 far more systematically than English. Thus, the most informative contrast is not “English time” versus “Chinese time” as two unified cognitive systems, but the relative conventionalization of particular mappings.

This distinction also helps avoid an overly strong linguistic-relativity interpretation. The linguistic evidence demonstrates patterned differences in available expressions. Psycholinguistic studies have reported both supportive and non-replicating results concerning whether these patterns alter non-linguistic temporal reasoning (Boroditsky, 2001; Chen, 2007). A journal-level account should therefore separate three claims: metaphorical language is pervasive; English and Chinese differ in some conventional mappings; and the cognitive consequences of those differences remain an empirical question. The first two claims are supported by the present contrastive analysis, while the third requires experimental or corpus-based extension.

4. Conclusion

This study compared four major temporal metaphor patterns in English and Chinese within the framework of Conceptual Metaphor Theory. The analysis shows a combination of shared conceptual resources and language-specific conventionalization. Both languages use spatial orientation to structure time, but front-back mapping is more directionally stable in English. English commonly places the future ahead and the past behind, whereas Chinese 前 can encode either earlier time or future prospects depending on the construction and reference frame. The largest asymmetry is vertical organization: Chinese systematically maps 上 onto earlier time and 下 onto later time across a wide range of temporal units, while English vertical expressions are limited and often encode degree, intensity, or path structure rather than a general chronological opposition.

By contrast, container metaphors are strongly convergent. English and Chinese both conceptualize temporal periods as bounded regions and use linguistic devices equivalent in function to “in,” “within,” “during,” and “enter.” TIME IS MONEY is similarly shared at the structural level: both languages describe time through operations of spending, wasting, saving, investing, and valuation. These convergences suggest that recurrent embodied and socio-economic experiences provide common source structures, while

lexical and grammatical convention determines how consistently particular mappings are realized.

The study is limited by its qualitative, example-based materials. It does not measure metaphor frequency, register distribution, historical change, or individual variation, and it does not test whether linguistic patterns cause differences in temporal cognition. Future work should therefore use balanced English and Chinese corpora with an explicit metaphor-identification protocol and should distinguish lexical frequency from conceptual productivity. Experimental studies may then examine whether the most robust linguistic contrast—the systematic Chinese 上/下 temporal sequence—corresponds to stable differences in non-linguistic temporal processing. For language teaching, the present analysis already indicates a practical point: learners should not assume one-to-one equivalence between spatial terms and temporal meanings. Teaching temporal expressions as conventionalized metaphorical systems, rather than isolated vocabulary items, can make cross-linguistic differences more transparent.

References

1. Alverson, H. (1994). *Semantics and experience: Universal metaphors of time in English, Mandarin, Hindi, and Sesotho*. Baltimore: Johns Hopkins University Press.
2. Boers, F. (1996). *Spatial prepositions and metaphor: A cognitive semantic journey along the up-down and the front-back dimensions*. Tübingen: Gunter Narr Verlag.
3. Boroditsky, L. (2001). Does language shape thought? Mandarin and English speakers' conceptions of time. *Cognitive Psychology*, 43(1), 1–22.
4. Boroditsky, L., Fuhrman, O., & McCormick, K. (2011). Do English and Mandarin speakers think about time differently? *Cognition*, 118(1), 123–129.
5. Chen, J.-Y. (2007). Do Chinese and English speakers think about time differently? Failure of replicating Boroditsky (2001). *Cognition*, 104(2), 427–436.
6. Clark, H. (1973). *Space, time, semantics, and the child*. In T. E. Moore (Ed.), *Cognitive development and the acquisition of language*. New York: Academic Press.
7. Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: The University of Chicago Press.
8. Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York: Basic Books.
9. Lan, C. (1999). Spatial metaphor in Chinese from a cognitive perspective. *Foreign Language Teaching and Research*, (4), 7–15.
10. Liu, W. (2009). A contrastive study of container metaphors in Chinese and English. *The Border Economy and Culture*, (1), 110–111.
11. Liu, Y. (2001). Temporal metaphors in Chinese. *Journal of Southeast University (Philosophy and Social Science)*, 3(3), 113–116.
12. Moore, K. E. (2014). *The spatial language of time: Metaphor, metonymy, and frames of reference*. Amsterdam & Philadelphia: John Benjamins.
13. Núñez, R., & Sweetser, E. (2006). With the future behind them: Convergent evidence from Aymara language and gesture in the cross-linguistic comparison of spatial construals of time. *Cognitive Science*, 30(3), 401–450.
14. Qin, Y. (2020). Universality and individuality in English and Chinese spatiotemporal metaphorical representations.

Journal of North China Electric Power University (Social Sciences), (2), 116–124.

15. Radden, G. (2005). The metaphor TIME AS SPACE across languages. In N. O. Bernal (Ed.), *Linguistics and literary studies: Interfaces, encounters, transfers* (pp. 1–20). Berlin: Walter de Gruyter.
16. Vuletić, K. (2011). Conceptual metaphor: Time is money [Dissertation]. Josip Juraj Strossmayer University of Osijek.
17. Wang, Y. (2011). A contrastive analysis of English and Chinese temporal proverbs from the perspective of Conceptual Metaphor Theory. *Journal of Shenyang University (Natural Science)*, 23(4), 92–95.
18. Xu, Y. (2008). Spatiotemporal metaphors of the Chinese temporal terms “shang” and “xia”. *Foreign Language Education*, 29(1), 6–10.
19. Yue, H., & Wang, H. (2001). An image-schema perspective on spatiotemporal metaphors in English and Chinese. *Foreign Languages and Teaching*, (2), 24–27.