A dynamic metaphor perspective on Trump and Xi's trade negotiation in governmental discourse

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A R T I C L E I N F O

A B S T R A C T

This article investigates the evolution of U.S.-China trade negotiation in governmental discourse under the presidencies of Donald Trump and Xi Jinping (2017–2021). Paying attention to the development of the political context, we examine trade metaphor use in American and Chinese governmental texts from a dynamic metaphor perspective. Based on the three dominant patterns of metaphoricity activation in the Trump and Xi trade corpora, the analyses reveal that trade metaphors in these governmental texts involve dynamic cognitive (metaphoricity transformation), affective (sentiment development), and socio-political (attitude change) processes. Unlike Cameron's (e.g., 2007) finding that the dynamics of metaphor use at a micro timescale (e.g., minutes) contribute to the reconciliation of discourse participants at a macro timescale (e.g., years), the results show that metaphoricity transformation across a micro timeline (e.g., days, months) does not advance the reconciliation across a macro timeline (years). Although the Trump-Xi trade dispute decreased at the end of 2019, the analyses of dynamic metaphors show that bilateral antagonistic perspectives continued for years.

1. Introduction

The largest U.S.-China trade war to date, viz. the Trump-Xi trade war, has attracted many metaphor scholars to study how this full-blown trade dispute was framed metaphorically in political communication (e.g., Jing, 2023; Song, 2021; Wang and Wang, 2021; Zhang and Forceville, 2020). However, all of them focus on trade metaphor use in news discourse from a static perspective, i.e., they regard trade metaphor as a fixed unit of cross-domain mapping in newspapers, and study how the (highly frequent) source domains (henceforth, Sources) highlight particular discrete trade attitudes or emotions detached from the development of the political context (e.g., Jing, 2023; Wang and Wang, 2021; Zhang and Forceville, 2020). For instance, Zhang and Forceville (2020) illustrate how *China Daily* frequently employed WAR/FIGHT metaphors to underline America's aggressiveness, without taking into account the context of the Trump-Xi trade dispute. Such decontextualized approaches give little attention to the evolution of bilateral trade negotiation in governmental communication from a

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dynamic metaphor approach. Nevertheless, this aspect merits in-depth investigation. On the one hand, one aim of political discourse analysis is to provide insights into 'historical change', i.e., how different discourses combine under particular socio-political conditions to produce changes in socio-political realities (Van Dijk, 1990). As noted by Fairclough (1992: 3), political discourses "do not just reflect or represent social entities and relations, [but] they [also dynamically] construct or 'constitute' them [over time]". On the other hand, defining metaphoricity as a dynamic property of metaphorical expression, the cutting-edge views on dynamic metaphoricity have significantly contributed to research on interactive negotiations (e.g., Cameron, 2007; Müller and Tag, 2010). For instance, Cameron (e.g., 2007) frequently explores how studies of systematic metaphors can uncover people's changes of ideas, attitudes, and values in post-conflict negotiations. Despite their ground-breaking contributions, dynamic metaphor researchers have never explored official negotiations of two countries constructed through dynamic metaphors in governmental texts. This article therefore uses a dynamic metaphor perspective to uncover the mysterious evolution of the Trump-Xi trade negotiation as seen in governmental discourse.

2. Dynamic metaphor research (in political contexts)

Pivotal dynamic approaches to metaphor, such as Cameron's (2007) Discourse Dynamics Approach and Müller's (2008) usage-based dynamic model, have provided the possibility to explore how dynamic cognitive and affective processes can mutually develop. However, their theoretical and empirical claims primarily concern (multi-modal) conversation rather than formal texts. Cameron (e.g., Cameron, 2007; Cameron and Deignan, 2006) claims that the affective force emerges with the cognitive force of verbal metaphors in conversations. For instance, Cameron (2007) and Cameron and Deignan (2006) observe that the cumulative impacts of systematic metaphors (e.g., the collocation and re-collocation of metaphoric expressions, known as Vehicles) contribute to the overall 'affective climate' (e.g., positive or negative emotions) of interlocutors. Developing Cameron's view, Müller (e.g., Müller, 2019; Müller and Tag, 2010) argues explicitly that gradable and dynamic metaphors are dynamic cognitive and affective processes, but her focus is on verbo-gestural metaphors in conversation. For instance, Müller's (e.g., Müller, 2019; Müller and Tag, 2010) analyses of verbo-gestural metaphors show that metaphoricity activation goes along with a moving focus of awareness, it comes with a particular affective quality, and it implies a felt experience of meaning. Given the scant research on dynamic political metaphors, one intriguing question is whether dynamic cognitive processes also mutually develop with dynamic affective processes in governmental texts. Answering this question could advance the dynamic view of cognitive and affective dimensions in political discourse. On the one hand, although some pivotal political discourse analysts (e.g., Charteris-Black, 2005) exemplify that political metaphors often call on affective appeal to achieve rhetorical goals, they have not given due attention to how the dynamicity of metaphoricity can be exploited to advance sentiments. On the other hand, researchers of dynamic political metaphors (e.g., Kyratzis, 1997) still regard emotion as a static issue separate from the interrelated dynamic processes involved in political discourse.

Furthermore, within the dynamic view, the accent on patterns of metaphoricity activation/development in conversations (e.g., Cameron, 2007; Müller and Tag, 2010) has not been extended to consider patterns of dynamic cognitive processes expressed in official texts. For instance, when reconstructing the cognitive and affective processes of verbo-gestural metaphors, Müller and Tag (2010) find that activated metaphoricity exhibits temporal patterns (which extend linearly in time) and simultaneous patterns (which are realized as degrees of metaphor activation at one given moment in time) in multi-modal communication. Since no works so far have revealed whether there are patterns of dynamic verbal metaphors that are typical of governmental texts, we might ask how such patterns of activated metaphoricity emerge, and whether they are related to the affective force of metaphors in governmental discourse. Answering these questions can help identify how patterns of dynamic cognitive processes in governmental texts help achieve communicative-pragmatic ends by appealing to audiences' sentiments.

In addition, although dynamic metaphor researchers (e.g., Cameron, 2007; Cameron et al., 2009) have delved into the broad meanings of the affective parameter (i.e., beliefs, attitudes, and values), little is known about the development of socio-political attitudes in official texts. When examining Vehicle development in conversation, Cameron (2007) and Cameron et al. (2009) propose a thought-provoking argument, i.e., what happens locally at the micro-level of a short timeline (e.g., moments, seconds, minutes of talk) contributes to bilateral changes in attitudes at the macro-level of a long timeline (e.g., years of reconciliation). Taking case studies of reconciliation between perpetrators and families of victims in terrorist attacks, Cameron claims that at the micro timescale, metaphors work pragmatically, as ideas are challenged, negotiated, and accepted; at the macro timescale, emergent systematic metaphors contribute to changes in participants' perspectives, their understanding of each other, and reconciliation with the violent events of the past. It is intriguing whether the process of attitude change (particularly reconciliation) can also be drawn from dynamic verbal metaphors in governmental texts. The identification of shifting trade opinions can not only be used to investigate the pragmatic function of dynamic verbal metaphors, but can also demonstrate how political attitude/value systems are increasingly conceptualized and communicated in governmental discourse over time.

It is noteworthy that, within the understudied field of socio-political attitude change, political discourse analysts have not revealed the mutual development of socio-political attitudes and political metaphors. For instance, Kyratzis (1997) detected

that Fresh[1] metaphors (metaphors with high degrees of metaphoricity) can be intentionally manipulated by politicians to shape audiences' political perspectives in Greek discourse. Nevertheless, he does not demonstrate sequential developments of socio-political attitudes over time. Therefore, delving into dynamic cognitive processes (metaphoricity activations) and socio-political processes (attitude changes) can enrich the dynamic view of metaphor in political discourse.

The present article aims to empirically document and reconstruct the intertwining of dynamic cognitive, affective, and socio-political processes across the temporal continuum of the Trump-Xi era (2017–2021). First, focusing on major patterns of metaphoricity activation in the Trump-Xi trade corpora, we examine whether, and if so how, cognitive processes (metaphoricity transformation), affective processes (developments of emotions/sentiments), and socio-political processes (attitude changes) are dynamically developed together in governmental texts. Second, based upon metaphoricity activation and the development of affective appeal, we explore how official trade attitudes are developed sequentially and whether reconciliation is reached in the Trump-Xi trade negotiation.

3. Theoretical framework

To address the research objective in Section 2, our theoretical framework is built on Müller's (2008) and Tan's (2023) dynamic views. Many earlier and contemporary metaphor theories hold that metaphors are either 'dead' or 'alive'. Accordingly, metaphoricity is only confined to a static property of a lexical item (e.g., a word) or a structure of thought (e.g., conceptual mapping). Refuting such a monolithic static view at the level of the system, Müller (2008) pioneeringly argues that metaphor has the potential for activation and thus is dynamic at the level of use. According to her dynamic model, metaphoricity is a dynamic feature of cognitive activation in a given individual at a given moment in time. Müller (2008: 127) assumes that transparent verbal metaphors range from Sleeping to Waking metaphors with no clear-cut boundaries in between; they are only seen as "two endpoints on a scale of activated metaphoricity". Sleeping metaphors show no empirical indications of activated metaphoricity and thus their metaphoricity is minimally activated, while Waking metaphors are surrounded by metaphoricity indicators and thus their metaphoricity is highly activated (ibid.: 196–198). Metaphoricity is inherently gradable in that degrees of activated metaphoricity depend on contexts of use. The same metaphoric expression can be asleep in one context and awake in another (ibid.: 198). Degrees of activation (degree of awareness of metaphoricity) can be documented through metaphoricity indicators. Müller (2008: 203) illustrates this with the activation of the Conventional metaphor attack[2] in extracts 1–2.

Extract 1.

The president has come under attack for his healthcare policy.

Extract 2.

Punches below the belt

Some of the speeches delivered on Ash Wednesday really hit below the belt of the political opposition. Verbal attacks are a part of politics. That has once again been demonstrated over the last few days. But the Ash Wednesday speeches also raise the following question: where does insult actually begin? (*Der Tagesspiege*l, March 2, 2001)

In extract 1, attack is a Sleeping metaphor. It is not surrounded by any metaphoricity indicator and thus its metaphoricity is not salient. By contrast, attack in extract 2 is a Waking metaphor. Its metaphoricity here is more foregrounded through a metaphoricity indicator of threefold elaboration which features the same image of physical fighting, i.e., "[low] punches", "[hit] below the belt", and "verbal attacks" (ibid: 203).

To enrich Müller's dynamic view, this article integrates Tan's (2023) YinYang Dynamics of Metaphoricity (henceforth, YYDM) which was specially created for the analysis of dynamic metaphors in governmental texts. YYDM targets metaphorizing, i.e., the online dynamic cognitive process of metaphoric meaning-making, in an evolving social-political context. According to YYDM, metaphoricity transformation (i.e., activation) takes place within and between the categories of Sleeping and Waking metaphors during metaphorizing. That is, it is not only Sleeping metaphors (e.g., Conventional metaphors) that can become Waking metaphors, and vice versa, but also Waking metaphors (e.g., Novel metaphors) can be further awakened to become even more Awake metaphors in certain contexts of use. The linear transformation of metaphoricity on a temporal continuum can be empirically documented through metaphoricity indicators (see Table 1). The more metaphoricity indicators that point towards a metaphoric expression, the more the metaphoric expression is foregrounded and the higher the degree of activation (Müller and Tag, 2010; Tan, 2023). Unlike other dynamic models, YYDM highlights the interplay of cognitive, affective, and social-political processes in political discourse. Specifically, YYDM assumes the mutual development of the activation of political metaphors, changes in political sentiment, and the development of political context. YYDM argues

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[1] The initial letter of a word is capitalized to mark the type of metaphor in this paper, i.e., Conventional metaphor, Novel Metaphor, Fresh metaphor, Sleeping metaphor, and Waking metaphor.

[2] Metaphoric vehicle terms are underlined in this article.

that the reconstruction of metaphoricity indicators in governmental texts can reveal how political agents (political genres and politicians) try to mobilize the audience's affective appeal in order to legitimize official political attitudes.

Table 1
Metaphoricity indicators in YYDM.

Composing (clustering of Source expressions; Müller, 2008): Vehicle 1, Topic/Target domain (henceforth, Target) A → Vehicle 2, Topic/Target A; Vehicle 1 and Vehicle 2 belong to the same Source. The clustering of Source expressions of WAR: "But the U.S. seems to have chosen to forget the lesson, stubbornly <u>blew</u> the <u>horn</u> of protectionism again, and <u>fired</u> the first <u>shot</u> in the trade <u>war</u> …" (Translated text from Xi corpus).

Explicit mapping: presenting the Vehicle/Source explicitly. Explicit mapping of <u>catastrophe</u> and CATASTROPHE: "World Trade Organization is a <u>catastrophe</u>" (Trump corpus).

Literal-metaphorical juxtaposition: foregrounding the Vehicle/Source by presenting the literal sense of the Vehicle/Source. E.g., foregrounding <u>defense</u> by presenting its literal sense: "Education, along with our army, is our national <u>defense</u>" (Kyratzis, 1997: 138).

Marking: using marking devices (Goatly, 1997) such as 'sort of', 'like', 'kind of', and 'literally' to mark the Vehicle/Source. E.g., using 'as' to mark <u>imaginary enemies</u> and IMAGINARY ENEMIES: "The U.S. regarded trade partners as <u>imaginary enemies</u> …" (Translated text from Xi corpus).

Emphasis: using punctuation (e.g., quotation marks), a font style (e.g., italics), or words (e.g., 'only', 'emphasize', 'it is that') to emphasize the Vehicle/Source. E.g., the following example uses quotation marks to emphasize <u>engine</u>/ENGINE: "International merchandise trade continues to act as '<u>engine</u>' of economic growth …" (Translated text from Xi corpus).

Repetition: Vehicle 1, Topic/Target A → Vehicle 1, Topic/Target A; repetition of the same Vehicle with the same Source. Repeating <u>stole</u> within the same Source CRIME: "… other countries <u>stole</u> our factories, <u>stole</u> our plants, <u>stole</u> our wealth and <u>stole</u> our jobs" (Trump corpus).

Diversification: Vehicle 1, Topic/Target A → Vehicle 2, Topic/Target A; Vehicle 1 and Vehicle 2 belong to different Sources. Consider the diversified Vehicles (<u>poison</u>; <u>prescription</u>) and Sources (POISON; PRESCRIPTION) in the following example, i.e., "Trade protectionism is a <u>poison</u> rather than a good <u>prescription</u>" (Translated text from Xi corpus).

Novelization: use of novel Vehicles to refer to the new Source. Using the novel Vehicle <u>top student</u> to refer to the new Source (SCHOOL): "China is a <u>top student</u> among the members of the World Trade Organization" (Translated text from Xi corpus).

Second-order metaphorizing: Vehicle/Source B, Topic/Target A → Vehicle/Source D, Topic/Target B. Vehicle/Source B is remetaphorized through Vehicle/Source D. Consider the remetaphorization of <u>win</u> through <u>goal</u> in the following example, i.e., "… we certainly would <u>win</u>. But that's not the <u>goal</u> …" (Trump corpus).

Mixing: Vehicle/Source B, Topic/Target A → Vehicle/Source D, Topic/Target C; Vehicle/Source B and D are different; Topic/Target A and C are different; Vehicle/Source B, Topic/Target A, Vehicle/Source D, and Topic/Target C do not have semantic relations as those in second-order metaphorizing. Consider the mixed Vehicles (<u>war</u>; <u>goal</u>) as well as the mixed mappings (TRADE IS WAR; TO GET FREE, FAIR, AND RECIPROCAL TRADE IS GOAL) in the following example, i.e., …trade <u>wars</u> are good … the <u>goal</u> is to get free, fair, and reciprocal trade… (Trump corpus).

Aggregation: At least two metaphoricity indicators within one sentence

Accumulation: Aggregation occurs in at least two sentences

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4. Data and corpora

To investigate the evolution of the Trump-Xi trade negotiation in governmental discourse from a dynamic metaphor view, the data was selected from a diachronic (2017–2021) and cross-linguistic (American English and Mandarin Chinese) governmental corpus containing '*trade*'/贸易 in the titles and/or bodies of the texts. It contains two trade corpora of the Trump-Xi era, i.e., the Trump corpus (totaling 1,470,409 words) and the Xi corpus (totaling 3,235,258 words). The Trump corpus was retrieved from the websites of the White House (https://www.whitehouse.gov/) and the U.S. Congress (https://www.congress.gov/). The Xi corpus was retrieved from the Renming database (http://data.people.com.cn/), i.e., the largest database about the Chinese government. Both the Trump and Xi corpora are official political texts on governmental activities, policies, laws, and regulations on trade, which ensures a cross-linguistic analysis of governmental discourse over years (see Table 2). Detailed information about the texts that were analyzed can be found here (https://osf.io/z47ey/).

Table 2
Types of governmental texts in the Trump and Xi corpora.

Corpus	Types of governmental texts
American	News of the White House (i.e., White House press releases)
	Statements (of the President, Press Secretary, and other politicians)
	Press Briefings (of the President, Press Secretary, and other politicians)
	Remarks (of the President and other politicians)
	Documents of Presidential Directives (i.e., nominations, proclamations, executive orders, and memorandums)
	Other Documents of the White House (i.e., Fact Sheet and Party Platform)
	Congressional Documents in the Senate and House of Representatives
Chinese	人民日报 'China Daily'
	领导人活动报道 'Reports of Leaders' Activities'
	外交部发言人言论 'Remarks of Foreign Ministry Spokesmen'
	政府工作报告 'Government Work Report'
	国家政策信息 'Important Information on Chinese Policy'
	共产党重要文献信息 'Important Documents and Information on the Chinese Communist Party'

We follow five main steps to annotate the dynamic metaphors of trade. First, the entire corpus was processed by the corpus software Sketch Engine from which full concordance sentences containing *'trade'/*贸易 were downloaded in Excel. The extraction of all instances of TRADE (e.g., 'trade', 'trade retaliation', 'trade protectionism') yielded a total of 29,637 cases. Second, the annotations of Vehicles and Sources follow Tan (2023) cross-linguistic metaphor identification procedure (CLMIP) which is based on Steen et al.'s (2010) MIPVU and Ahrens and Jiang's (2020) Source identification protocol. Third, the neighboring sentences which share the same Target(s) and the same Source(s) with the concordance sentences of 'trade'/贸易 were grouped into sentence clusters. This resulted in 1847 sentence clusters in the Trump corpus and 3980 sentence clusters in the Xi corpus. Fourth, in terms of each sentence cluster, we coded the metaphoricity indicators of metaphoricity transformation according to Table 1. Fifth, the patterns of metaphoricity activation occurring among different sentence clusters were calculated in each corpus, yielding 2771 patterns in the Trump corpus and 5970 patterns in the Xi corpus.

In terms of the intercoder agreement, 20% of the English sentence clusters (369 units) and Chinese sentence clusters (796 units) were annotated for metaphoricity indicators by two metaphor scholars trained in English and Chinese dynamic metaphor identification in Amsterdam Metaphor Lab. The intercoder reliability was 'substantial' in terms of the English dataset (Cohen's Kappa = 0.73) and the Chinese dataset (Cohen's Kappa = 0.75).

5. Analysis and results

The quantitative results reveal three patterns of metaphoricity activation in the Trump and Xi corpora as the most frequent (see Table 3). Based on these dominant patterns, the qualitative analysis of examples 1–12 below zooms in on the metaphoricity transformation, development of affective appeal, and trade attitude change in the *American Remarks (*day by day, month by month, and across months) and in the *China Daily* (within the same day, across days, month by month). The analysis across micro timescales (e.g., days, months) demonstrates the evolution of the trade negotiation within the macro timescale (over years). To cast light on the evolution of the Trump-Xi trade negotiation, we pay significant attention to the development of the trade context where metaphoricity transformations are situated; this is done by selecting crucial time periods around which important political events occurred (see Table 4).

Table 3
Top frequent patterns of metaphoricity activation in the Trump and Xi corpora.

Types of patterns	Corpus	Frequency	Proportion
From one metaphoricity indicator to a larger number of aggregated (and accumulated) metaphoricity indicators	Trump	1164	42.00%
	Xi	2149	36.00%
The increased use of aggregated (and accumulated) metaphoricity indicators	Trump	610	22.01%
	Xi	1552	26.00%
From aggregated metaphoricity indicators to (a greater number of) aggregated and accumulated metaphoricity indicators	Trump	554	20.00%
	Xi	1373	23.00%
Other (in total)	Trump	443	15.99%
	Xi	896	15.00%

Table 4
Dynamic metaphors, time period of metaphoricity transformation, and development of political contexts.

Example numbers	Dynamic metaphor[a]	Time period of metaphoricity transformation	Development of political context
1–2	war	05/03/2018–06/03/2018	On 1 March 2018, President Trump announced 25% tariffs on Chinese steel imports and 10% tariffs on Chinese aluminum imports. The trade dispute developed in March 2018.
7–8	战 'war'	26/03/2018–29/03/2018	
3–4	lost	27/06/2018–16/07/2018	On 6 July 2018, the trade war started with the bilateral tariff imposition on $34 billion of $50 billion lists of American/Chinese products.
9–10	讹诈 'blackmail'	12/07/2018–11/08/2018	On 7 August 2018, the Trump Administration revised the second phase of its $50 billion list, announcing that $16 billion of imports from China will be subject to a higher 25 percent tariff rate, going into effect on 23 August 2018.
5–6	plunder	19/01/2020–06/08/2020	The trade dispute decreased in December 2019. On 15 January 2020, two countries signed the phase-one trade deal. In January 2020, President Trump held presidential campaign rallies, such as the Monster campaign rally on 14 January 2020. On 30 July 2020, Trump's campaign team temporarily halted television advertising to reassess its messaging strategy, in order to more forcefully beat Joe Biden.
11–12	最高法院 'supreme court'	23/01/2020	On 11 December 2019, the U.S. blocked the appointment of new judges to the WTO's Appellate Body. The trade conflicts in WTO cases developed in January 2021.

[a] The metaphoricity of the expressions in this column will be made clear in the analyses of examples 1–12 in section 5.

5.1. The Trump corpus

5.1.1. Day by day (05/03/2018–06/03/2018)

Examples 1–2 examine the most frequent pattern of metaphoricity activation in the Trump corpus, i.e., *from one metaphoricity indicator to a larger number of aggregated and accumulated metaphoricity indicators*[3]. They present a linear transformation of metaphoricity of <u>war</u> day by day in the *Presidential Remarks*. With this, we see a slight change of trade perspective—from the nonnecessity of a trade war on 5 March 2018, to emphasis on the trade war's damage to China and on America's previous losses on 6 March 2018—which would be in line with a growing nationalist sentiment at the time.

Repetition

(1) Q Talking about a trade **war**[4]? PRESIDENT TRUMP: I don't think you'll have a trade **war**. Q No trade **war**? PRESIDENT TRUMP: I don't think so. I don't think you're going to have [a] trade **war**, no. (Remarks, 05/03/2018)

Aggregation and accumulation: second-order metaphorizing, repetition, composing, and literal-metaphorical juxtaposition

(2) When we're down by $30 billion, $40 billion, $60 billion, $100 billion, the trade **war hurts** them; it doesn't **hurt** us. So we'll see what happens. You know, you can also take it – in some cases, we **lose** on trade, plus we give them <u>military</u> where we're subsidizing them tremendously. So not only do we **lose** on trade, we **lose** on <u>military</u>, and hence we have these massive deficit numbers in our country. (Remarks, 06/03/2018)

Within seconds of the *Presidential Remarks* on 5 March 2018, <u>war</u> changes from a Sleeping to Waking metaphor through the *repetition* of <u>war</u> (see example 1). Transforming the metaphoricity, President Trump informed the public that China would be coerced into concessions under his threat without even needing a large-scale trade dispute.

Interestingly, on the next day, <u>war</u> transforms linearly into a more Waking metaphor (in example 2) than in example 1. In the first sentence, 'trade <u>war</u>' is remetaphorized by <u>hurt</u> through a *second-order metaphorizing* involving the *repetition* of '<u>hurt</u>'. In the next sentences, <u>war</u> is even more salient. This is achieved through the *clustered* and *repeated* WAR metaphors (<u>lose</u>, <u>military</u>) intertwined with a parallel structure (we <u>lose</u> on trade, we <u>lose</u> on <u>military</u>), as well as the pun of <u>military</u> which exploits its *literal sense*, i.e., the loser of the war gives in to the winner militarily. Underscoring in his presidential speech the physical damage of the trade war to China as well as America's previous losses, President Trump continuously triggers the nationalist sentiment of defending the U.S. through a trade war. Hence, both the development of sentiment and metaphoricity transformation aid in the steady legitimization of Trump's start of the trade war.

5.1.2. Month by month (06/2018–07/2018)

Examples 3–4 demonstrate the second most frequent arrangement of metaphoricity activation, i.e., *the increased use of aggregated and accumulated metaphoricity indicators*. They show the sequential transformation of metaphoricity of the word <u>lost</u> month by month in the *Remarks* of politicians, i.e., from a Sleeping to Waking metaphor in June 2018 to a more Awake metaphor in July 2018. This involves the gradual activation of nationalist sentiment and the increasingly foregrounded American losses caused by what are claimed to be failures of previous presidencies. Both the sentiment and the failures are more strongly highlighted in July 2018 than in March 2018 (cf. example 4 vs. example 2).

Aggregation and accumulation: repetition and composing

(3) You know, I've said a couple of times, when we're $500 billion down, they say, "Trump is starting a trade **war**. "I say no. The trade **war** ended a long time ago, and the United States **lost** because our leaders didn't take care of our people and our companies. [applause] So, we're not starting a trade **war**, but we'll finish it. (Remarks, 27/06/2018)

Aggregation and accumulation: repetition, emphasis, and composing

(4) The truth is, as the President has said, America has been **losing** at trade far too often, not only with China, but across the wider world. And yet for far too long, our nation's leaders refused to admit this fact, even as American workers struggled in the wake of it. The truth is, America has **lost** too many jobs, we've **lost** too much wealth. We've **lost** too many trade **battles** without **putting up** so much as a **fight**. (Remarks, 16/07/2018)

In June 2018, the *repetition* of <u>war</u> and *clustered* WAR metaphors (<u>war</u>, <u>lost</u>), accumulated across sentences, transform <u>lost</u> from a Sleeping to a Waking metaphor (see example 3). Activating the metaphoricity of <u>lost</u>, President Trump aroused the nationalist sentiment of 'loss'. Personifying the U.S. as a loser, he legitimized the imminency of his trade war. In particular, the way this metaphor use is situated facilitates his contrasting of former Presidents with himself, i.e., previous leaders ruined

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[3] The pattern of metaphoricity activation, the genre, and the metaphoricity indicators are italicized.

[4] In examples 1–12, Conventional metaphors are written in bold font, while Novel metaphors are not. The identification of Conventional and Novel metaphors follows Tan's (2023) cross-linguistic metaphor identification procedure (CLMIP).

America's interests by finishing a trade war with a 'loss', but Trump put America's interests first by ending a trade war with a possible 'win'.

In July 2018, <u>lost</u> transforms into a more Awake metaphor in example 4 than in example 3 through the *repetition* of '<u>lost</u>' via different verbal tenses of 'lose', the *emphasis* on <u>battle</u> through 'too many', and the *clustered* WAR metaphors. The metaphoricity activation, intersected with the parallel structure of 'lost' and antithesis between 'too many' and 'without', personifies the U.S. more strongly as a loser. This could gradually trigger nationalist emotions of fighting and winning a war for America. Compared with President Trump's metaphorizing in example 3, Vice President Mike Pence's metaphorizing in example 4 highlights even further America's losses (e.g., jobs and wealth) caused by what are perceived as former leaders' failures in previous trade wars. Such a higher degree of foregrounding further legitimizes Trump's trade war which already began on 6 July 2018. Overall, the nationalist sentiment is dynamically developed in the speeches of politicians, grounded on the linear activation of the metaphoricity of <u>lost</u> from June to July 2018.

5.1.3. Across months (01/2020–08/2020)

Examples 5–6 exhibit the third most frequent characteristic arrangement of metaphoricity activation, i.e., *from aggregated metaphoricity indicators to aggregated and accumulated metaphoricity indicators*. They manifest the sequential transformations of metaphoricity of <u>plunder</u> in the *Presidential Remarks* across months. The metaphoricity activation from January to August 2020 indicates an increasingly burgeoning nationalist and negative sentiment toward what is seen as Chinese criminal trade behavior. Notably, antagonist sentiments against China and America's past administrations are more highlighted in 2020 than in 2018 (cf. examples 5–6 vs. examples 3–4).

Aggregation: composing, repetition, diversification, and mixing

(5)   For years, China **stole** trade secrets from American agri-businesses, and **plundered** our intellectual property, **illicitly subsidized** grain procedures, and **installed** one **barrier** after another to **block out** our farmers and to **block out** our ranchers. (Remarks, 19/01/2020)

Aggregation and accumulation: composing, repetition, emphasis, and diversification

(6)   And no one knows better than the workers of Whirlpool the high cost of past administrations' economic blunders and **surrender.** On the question of foreign trade, previous leaders were guided by a shameful policy of **capitulation**, **submission**, and **retreat.** For decades, you watched as politicians let foreign nations **steal** our jobs, <u>loot</u> our factories, and **plunder** the crown jewels of the U.S. economy. And the word "**plunder**" is capitalized. (Remarks, 06/08/2020)

On 19 January 2020, <u>plunder</u> transforms from a Sleeping to a Waking metaphor within seconds of Trump's presidential speech (see example 5). This is attained through the *clustered* metaphors of CRIME and JOURNEY, the *repeated* metaphors of JOURNEY, the *diversified* Sources (CRIME; JOURNEY), and the *mixed* semantic mappings (e.g., TRADE SECRET IS OBJECT; TRADE IS JOURNEY). At the beginning of the utterance, <u>stole</u> metaphorizes trade secrets as OBJECTS. The flow of the utterance brings <u>stole</u>, <u>plundered</u>, <u>illicitly</u>, and <u>subsidized</u> into a *cluster* which metaphorizes trade as a CRIME. In the final part of the utterance, other *clustered* (<u>installed</u>, <u>barrier</u>, <u>block out</u>) and *repeated* (<u>block out</u>) metaphors depict trade as a JOURNEY. These metaphoricity strategies, coupled with parallel structures, consecutively metaphorize and personify China as a stealer, plunderer, illegal subsidizer, and blocker who destroys the trade interests of America(ns). Such dynamics of metaphor use incrementally frame enormous negative feelings towards China's unfair trade practices and could increasingly mobilize nationalist sentiments of fighting against China and protecting America, thus legitimizing Trump's rhetoric in his presidential campaign.

Within minutes of Trump's presidential speech on 6 August 2020, <u>plunder</u> transforms into a more Awake metaphor (see example 6). The metaphoricity activation here personifies China (America's targeted foreign nation) as a devastating war criminal (e.g., looter and plunder). In the first two sentences of his utterance, the *clustered* WAR metaphors (<u>surrender</u>, <u>capitulation</u>, <u>submission</u>, and <u>retreat</u>) highlight WAR, which prepares the foregrounding of <u>plunder</u>. As his speech unfolds, the *clustered* CRIME metaphors (<u>steal</u>, <u>loot</u>, <u>plunder</u>) and the *emphasis* on <u>plunder</u> (marked through quotation marks and the word 'capitalized'), activate <u>plunder</u> even further here than in example 5, by stressing the evil and devastating crimes of the Source domain of WAR.

The transformation of metaphoricity allows for the incremental triggering of nationalist sentiment and the gradual arousal of negative emotions towards the trade policies of previous leaders. Particularly, with the increased mention of physical damage inflicted by war crimes, the sentiment to protect America through a trade war grows. This further legitimizes Trump's campaign rhetoric, i.e., the continuous tough U.S. trade policy in his next presidency will 'make America great again'. Hence, the negative feelings and nationalist sentiment of countering Chinese harm are dynamically developed in the presidential speech from example 5 to example 6, while the metaphoricity of <u>plunder</u> is sequentially foregrounded from January 2020 to August 2020.

To conclude, analyses of the dynamics of metaphor use in the Trump corpus show two main findings, which are summarized in Table 5. First, the primary patterns of metaphoricity activation show a linear transformation of metaphoricity and an incremental unfolding of emotions and nationalist sentiments. Second, these distinct patterns of metaphoricity activation display the diachronic development of American trade perspectives in the Trump era, i.e., from (a) the nonnecessity of a trade war (05/03/2018), to (b) emphasis on the trade war's damage to China and on America's previous losses (06/03/2018), to (c) greater highlighting of America's trade losses caused by failures of previous presidencies (06/2018–07/2018), to (d) greater

accentuation of Chinese criminality in trade (01/2020–08/2020). Focusing on archetypal patterns of metaphoricity activation, Section 5.2 will examine how the metaphoricity activation is related to the dynamic change of sentiments and trade perspectives in the Xi era.

Table 5
Dynamic metaphor transformation, the change of affective appeal, and the change of trade attitude in the Trump corpus.

Example number	Activation of metaphor	Time period of metaphoricity transformation	Time scale	Change of affective appeal	Change of trade attitude
1–2	war (From Sleeping to Waking to more Awake metaphor)	05/03/2018–06/03/2018	Day by day	The increase of nationalist sentiment of defending the U.S. through a trade war	From the nonnecessity of a trade war to emphasis on the trade war's damage to China and on America's previous losses
3–4	lost (From Sleeping to Waking to more Awake metaphor)	27/06/2018–16/07/2018	Month by month	The rise of negative feelings towards 'America's losses', and the growth of nationalist emotion of winning a war for America	Greater highlighting of America's trade losses caused by failures of previous presidencies
5–6	plunder (From Sleeping to Waking to more Awake metaphor)	19/01/2020–06/08/2020	Across months	The surge of negative sentiment towards what is seen as Chinese criminal trade behavior, and the spreading of nationalist feelings of countering Chinese harm and protecting America	Greater accentuation of Chinese criminality in trade

5.2. The Xi corpus

5.2.1. Across days (26/03/2018–29/03/2018)

Examples 7–8 revolve around the third most frequent pattern of metaphoricity activation in the Xi corpus, i.e., *from aggregated metaphoricity indicators to a greater number of aggregated and accumulated metaphoricity indicators*. They show the linear transformation of metaphoricity of 战 'war' across days in the *China Daily*, i.e., 战 'war' transforms from a Sleeping to Waking metaphor in example 7 to a more Awake metaphor in example 8. The metaphoricity activation crops up with the change of trade position and increased nationalist sentiments, i.e., from no fear of a trade war on 26 March 2018 to prospective American losses on 29 March 2018.

Aggregation: repetition and composing

(7)   中国不怕贸易**战** 中国不愿意**打**贸易**战**,贸易**战**没有**赢家**,但中国也不怕贸易**战**。 'China Is Not Afraid of Trade **War** (news title) China is not willing to **fight** trade **war**, and there is no **winner** in trade **war**, but China is not afraid of trade **war**.' (*China Daily*, 26/03/2018)

Aggregation and accumulation: composing, repetition, emphasis, explicit mapping, marking, and literal-metaphorical juxtaposition

(8)   特朗普**发动**了一场不会有明确**胜利**的**攻击**。他在竞选中曾声称,不会在毫无意义的战争中浪费美国人的生命和财富。然而,他**发起**的一场贸易**战**证明,他的这场'经济**战**'将像阿富汗战争一样代价昂贵,且毫无结果。 'Trump **launched** an **attack** that will not have a clear **victory.** During his election campaign, he claimed that he would not waste the lives and wealth of Americans in a meaningless war. However, the trade **war**, which he **launched**, proved that his 'economic **war**' would be like a costly and fruitless war in Afghanistan.' (*China Daily*, 29/03/2018)

In a news report from the *China Daily* (entitled 'China Is Not Afraid of the Trade War') on 26 March 2018, the *repetition* of 战 'war' and the *clustered* WAR metaphors (打 'fight', 战 'war', 赢家 'winner') transform 战 'war' from a Sleeping to Waking metaphor (see example 7). Built on the metaphoricity transformation, *China Daily* conveys its stance that China is unwilling to go to war, but is also unafraid of war.

With the evolving trade dispute, the discourse of *China Daily* developed to highlight the prospective American losses in the trade war, which is reflected in higher activation of 战 'war' three days later (see example 8). This is performed via aggregated and accumulated metaphoricity indicators, i.e., the *clustered* WAR metaphors (e.g., 发起/发动 'launch', 胜利 'victory', and 攻击 'attack'), the *repetition* and *emphasis* of 战 'war', the *explicit mapping* of TRADE DISPUTE IS AFGHAN WAR, the *marking device* of 像 'like', and *juxtaposition* of literal damage of 战 'war', i.e., how the expensive and fruitless war in Afghanistan cost American lives and wealth. By emphasizing the physical damage of a trade war to the U.S. rather than to China, the change of metaphoricity continuously induces a nationalist sentiment toward making America lose.

5.2.2. Month by month (07/2018–08/2018)

Examples 9–10 focus on the most frequent pattern of metaphoricity activation, i.e., *from one metaphoricity indicator to a greater number of aggregated metaphoricity indicators*. They show the sequential activation of metaphoricity of 讹诈 'blackmail' month by month in the *China Daily*. The change in metaphoricity highlights increased negative feelings against what are perceived to be America's criminal trade behaviors as well as the heightening nationalist sentiments of resisting trade harm caused by America's criminality from July to August 2018. Note that the nationalist sentiment against the U.S. in July/August 2018 is stronger than that in March 2018 (cf. examples 9–10 vs. examples 7–8).

Composing

(9)   中国既不会在<u>威胁</u>和<u>讹诈</u>面前退让,也不会动摇捍卫全球自由贸易和多边体制的决心。'China will neither yield to **threats** and **blackmail**, nor waver in its determination to defend global free trade and the multilateral system.' (*China Daily*, 12/07/2018)

Aggregation: composing, diversification, novelization, emphasis

(10)   一边<u>挥舞</u>关税<u>大棒</u>,搞极限<u>施压</u>贸易<u>讹诈</u>;一边到处<u>扬言</u>"退群",想<u>威逼利诱巧取豪夺</u>。'At the same time, it **wields** the big **stick** of tariffs, **pressures** China extremely, and **blackmails** China on trade; While **threatening** to "leave the group" everywhere, it wants to **intimidate by force, lure by the promise of gain**, and **rob and plunder by trick and coercion**.' (*China Daily*, 11/08/2018)

On 12 July 2018, 讹诈 'blackmail' changes from a Sleeping to a Waking metaphor through the *clustered* BLACKMAIL metaphors (威胁 'threats', 讹诈 'blackmail') in the *China Daily* (see example 9). Personifying the U.S. as an unscrupulous 'blackmailer' and China as an innocent victim being blackmailed could spark nationalist sentiments of defending China and the multilateral system (the WTO) against America's damage.

On 11 August 2018, 讹诈 'blackmail' transforms into a more Awake metaphor in the *China Daily* through the aggregated metaphoricity techniques of *composing*, the use of *diversified* Sources of VIRTUAL FRIENDSHIP and CRIME, and the *novel* Source of VIRTUAL FRIENDSHIP involving *emphasis* (see example 10). First, the metaphoricity transformation of 讹诈 'blackmail' is achieved through the *clustered* CRIME metaphors (e.g., 威逼利诱 'intimidate by force and lure by the promise of gain', 巧取豪夺 'rob and plunder by trick and coercion') which depict open blackmail. Second, the *emphasis* of 退群 'leave the (WeChat) group' through the use of quotation marks further foregrounds 讹诈 'blackmail'. Metaphorizing trade through the new Source of VIRTUAL FRIENDSHIP, 退群 'leave (WeChat)' portrays in detail America's criminal behavior of coercion. Such metaphoricity activation personifies the U.S. as an aggressive and outrageous blackmailer who pressures China by wielding the big stick of tariffs, who devastates China with tricks and coercion, and who threatens to leave the virtual WTO group of WeChat. Constructed on the linear foregrounding of the metaphoricity of 讹诈 'blackmail' from example 9 to example 10, the negative affective appeal towards America's criminality and the national sentiment of fighting against American trade harm are incrementally developed in the *China Daily* from July to August 2018.

5.2.3. Within the same day (23/01/2020)

Examples 11–12 illustrate the second most frequent pattern of metaphoricity activation, i.e., *the increased use of aggregated metaphoricity indicators*. They reveal the sequential transformation of metaphoricity of 最高法院 'supreme court' in the *China Daily*, i.e., 最高法院 'supreme court' moves from a Waking metaphor to a more and more Awake metaphor at the beginning of the news report. The metaphoricity transformation in the period of one day (23 January 2020) coincides with a constantly highlighted negative emotion and a spreading nationalist sentiment of counteracting America's trade damage to the WTO's Appellate Body. Remarkably, the nationalist sentiment of defending the WTO is more strongly highlighted in 2020 than in 2018 (cf. examples 11–12 vs. examples 9–10).

Aggregation: novelization, emphasis, second-order metaphorizing, and mixing

(11)   全球贸易"<u>最高法院</u>"<u>停摆</u>,[5]贸易保护主义<u>拖累</u>世界经济 'The "<u>Supreme Court</u>" of global trade has **stopped**, and trade protectionism has **dragged down** the world economy.' (*China Daily*, 23/01/2020)

Aggregation: marking, novelization, explicit mapping, emphasis, second-order metaphorizing, and composing

(12)   12月11日起,世贸组织上诉机构—全球贸易"<u>最高法院</u>"在<u>运行</u>25年后因美国阻挠<u>陷入瘫痪</u>。'Since December 11, the World Trade Organization's Appellate Body—the "<u>Supreme Court</u>" of global trade has **fallen into** paralysis after its 25-year **operation**/**motion** due to the obstruction of the U.S.' (*China Daily*, 23/01/2020)

In the news title, 最高法院 'supreme court' transforms from a Waking into more Awake metaphor through the aggregated metaphoricity indicators of *novelization*, *emphasis*, *second-order metaphorizing*, and *mixed mappings* (e.g., TRADE IS SUPREME COURT; TRADE PROTECTIONISM IS A PERSON) (see example 11). Specifically, the *novel* vehicle 最高法院 'supreme court' is first foregrounded through *emphasis* (quotation marks) in the first clause. Then a *second-metaphorizing* further highlights 最高法院 'supreme court'. That is, 最高法院 'supreme court' is metaphorized through 停摆 'stop' which remetaphorizes the *novel* Source SUPREME COURT (mapped to 'trade') as a dysfunctional CLOCK PENDULUM. In the last clause, 拖累 'drag down' personifies trade protectionism as a PERSON, which further underlines the physical damage, thus further activating 最高法院 'supreme court'.

Interestingly, 最高法院 'supreme court' is more salient in the first sentence of the news report, as the same noun phrase is repeated and elaborated with a higher number of aggregated metaphoricity indicators (see example 12). The contextual

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[5] The basic sense of 停摆 'stop' in 汉典 'Dictionary of Chinese' (https://www.zdic.net/hans/停摆), i.e., 闹钟的钟摆停顿 'the pendulum of the alarm clock stops', indicates the Source of this metaphorical unit as CLOCK PENDULUM.

indications include the *marked novel* Source and Vehicle involving *explicit mapping* and *emphasis*, and the *second-order metaphorizings* carrying *clustered* metaphors. At the beginning of the sentence, the *novel* Vehicle 最高法院 'supreme court' is more activated through *emphasis* (quotation marks) as well as the *marking device* ('—') which denotes an *explicit mapping* (WTO'S APPELLATE BODY IS SUPREME COURT). With the flow of the sentence, 最高法院 'supreme court' is even more foregrounded via consecutive *second-order metaphorizings*, i.e., the *novel* Source of SUPREME COURT is continuously remetaphorized as different Sources. First, it is remetaphorized again as CLOCK PENDULUM through 运行 'operation/motion'. Second, it is remetaphorized as a PERSON through *clustered* illness metaphors of 陷入 'fall into' and 瘫痪 'paralysis'. Contingent on such metaphoricity transformation, *China Daily* incrementally highlights the severe physical damage of America's trade protectionism to the WTO. Taking examples 11–12 together, the negative emotion and nationalist sentiment of antagonism towards America's trade destruction are gradually developed, along with the sequential activation of metaphoricity of 最高法院 'supreme court' from the news title to the first sentence of the news report on 23 January 2020.

To summarize, the examination of the dynamics of metaphor use in the Xi corpus offers two main findings, which are shown in Table 6. On the one hand, the major patterns of metaphoricity activation show the sequential activation of metaphoricity and the gradual escalation of emotions and nationalist sentiments. On the other hand, they exhibit diachronic changes in Chinese trade attitudes in the Xi era, from (a) no fear of a trade war (25/03/2018), to (b) the prospective American losses (26/03/2018), to (c) greater emphasis on America's criminal trade behavior (07/2018–08/2018), to (d) opposition to America's damage to WTO's Appellate Body (01/2020).

Table 6
Dynamic metaphor transformation, the change of affective appeal, and the change of trade attitude in the Xi corpus.

Example number	Dynamic metaphor	Time period of metaphoricity transformation	Time scale	Change of sentiment	Change of trade attitude
7–8	战 'war' (From Sleeping to Waking to more Awake metaphor)	26/03/2018–29/03/2018	Across days	The burgeoning nationalist sentiment toward making America lose	From no fear of a trade war to the prospective American losses
9–10	讹诈 'blackmail' (From Sleeping to Waking to more Awake metaphor)	12/07/2018–11/08/2018	Month by month	The constantly highlighted negative affective appeal towards America's criminality and the increasing national sentiment of fighting against American trade harm	Greater emphasis on America's criminal trade behavior
11–12	最高法院 'supreme court' (From Waking to more and more Awake metaphor)	23/01/2020	Within the same day	The increase in negative emotion towards America's trade destruction and the spreading nationalist sentiment of counteracting America's trade damage to the WTO	Opposition to America's damage to WTO's Appellate Body

6. Discussion and conclusion

The major conclusion that can be drawn from these analyses of metaphor in governmental communication is that gradable and dynamic metaphors in governmental texts entail intertwined dynamic cognitive processes (trajectories of metaphoricity transformation), affective processes (increasing activations of affective appeal), and socio-political processes (evolution of official attitudes) which mutually develop together. This conclusion goes beyond the static view of metaphors in political discourse and complements the current dynamic view of metaphors.

To start with, going beyond the conventional assumption that trade metaphors are static conceptual units of cross-domain mapping in news discourse (e.g., Jing, 2023; Wang and Wang, 2021; Zhang and Forceville, 2020), this article shows that trade metaphors constitute dynamic cognitive processes in governmental discourse. First, extending Müller and Tag's (2010) claims about gradable and dynamic metaphoricity from verbo-gestural metaphor in general conversation to verbal metaphor in government texts, cross-linguistic analyses of metaphor use in the Trump and Xi corpora over years show three dominant patterns of metaphoricity activation displaying an increased transformation of metaphoricity across a micro timescale such as day(s) and month(s), i.e., (1) from one metaphoricity indicator to a larger number of aggregated (and accumulated) metaphoricity indicators, (2) increased use of aggregated (and accumulated) metaphoricity indicators, and (3) from aggregated metaphoricity indicators to (a greater number of) aggregated and accumulated metaphoricity indicators. Second, the analyses of these patterns reveal that the metaphoricity of a given verbal metaphor in governmental texts is gradable (a matter of degree of activation) and dynamic (a matter of change) over time (2017–2021) and across languages (English and Chinese), which is detectable from metaphoricity indicators. Depending on contextual affordances, such as elaboration of verbal metaphoricity, Conventional metaphors can transform from Sleeping into Waking into more Awake metaphors, and Novel metaphors can transform from Waking into more and more Awake metaphors.

Furthermore, gradable and dynamic metaphors entail dynamic affective processes that develop gradually with dynamic cognitive processes of metaphoricity transformation. On the one hand, the reconstruction of the dynamic affective element in governmental texts complements the traditional static approach which assumes the affective appeal of (trade) metaphor is merely a static phenomenon of a metaphorical unit in a small stretch of political text (e.g., Charteris-Black, 2005; Song, 2021). On the other hand, research results of dynamic affective appeal corroborate and complement the current dynamic views. First, corroborating Cameron's (e.g., Cameron, 2007; Cameron and Deignan, 2006; Cameron et al., 2009) dynamic claims, the

results show that the affective force of dynamic verbal metaphor is inseparable from the cognitive pattern of metaphoricity activation. Second, extending Müller's (e.g., Müller, 2019; Müller and Tag, 2010) claims about the mutual development of dynamic cognitive and affective processes from verbo-gestural metaphor in conversation to verbal metaphor in governmental texts, our analyses reveal that the activation of emotions (e.g., antagonism) towards the 'Other' (China/the U.S.) is gradable and dynamic, i.e., negative and nationalist sentiments are activated linearly over time and simultaneously to different degrees. Particularly, sentiments steadily grow when metaphors move within and between the categories of Sleeping and Waking metaphors on a temporal continuum (as shown in Tables 5 and 6). When Conventional metaphors transform from Sleeping to Waking to more Awake metaphors, or when Novel metaphors transform from Waking to more and more Awake metaphors, the degree of negative affective appeal and nationalist sentiment against the hostile country deepens across days, months, and years of the development of U.S.-China trade war. Third, our result concerning interrelated cognitive and affective processes also supplements the current dynamic approach to political metaphors which still takes sentiment as a static issue of political discourse (e.g., Kyratzis, 1997). The findings show that the foregrounded patterns of activated metaphoricity allow for the development of affective and pragmatic force in political discourse. That is, built on linear and simultaneous arrangements of metaphoricity, political genres (American *Remarks* and Chinese *News*) and politicians (in the White House) constantly and gradually activate audiences' hostile emotions and nationalist sentiments of defending the 'Self' against the damage of the 'Other'. The antagonistic emotion and nationalist sentiment even leap over different activated Vehicles and progressively grow over years (cf. examples 5–6 vs. 3–4; examples 11–12 vs. 9–10), presumably to achieve greater legitimization of trade stances of the 'Self'. Therefore, dynamic metaphors are powerful pragmatic tools for accomplishing rhetorical goals in political communication.

In addition, gradable and dynamic metaphors enact dynamic socio-political processes that co-occur with dynamic cognitive and affective processes. On the one hand, gradable and dynamic metaphors are dynamic socio-political and cognitive processes. The analyses reveal that they enable the historical shift of trade attitudes (as shown in Tables 5 and 6) in line with the diachronic development of trade events in a political context (as shown in Table 4). Unlike Cameron's (e.g., Cameron, 2007; Cameron et al., 2009) dynamic studies of reconciliation, the salient patterns of metaphoricity transformation here show that the dynamics of metaphor use across a micro timeline (e.g., days, months) do not necessarily advance trade reconciliation across a macro timeline (years). Although the trade war decreased at the end of 2019, the results reveal that the bilateral antagonist perspectives continued for years. Therefore, reconciliation between two political actors (the U.S. and China) engaged in a transnational trade war is more complex than reconciliation between two human beings dragged into a terrorist bombing incident (as discussed in Cameron's work). As corroborated by Tan et al.'s (2023) socio-cognitive approach, the development of a bilateral trade attitude is also shaped by socio-political forms such as trade interests and trade power, in addition to situated metaphor use in the U.S.-China trade discourse.

On the other hand, gradable and dynamic metaphors are dynamic socio-political and affective processes. As demonstrated in the analysis, they often carry evaluative, emotional, and emphatic socio-political stances which position metaphor producers relative to metaphor recipients. Personification is largely used by the Trump and Xi governments to express official resentment against the Other's destructive trade practices, thus legitimizing their respective trade position among their citizens. Despite the lack of trade reconciliation between the two countries, the results here show that the dynamic metaphoric construction of socio-political reality is part of a diachronic process of official attitudinal change, or to put it another way: changes in trade attitudes over time can be seen in the changes observed in the activation of metaphoricity. The historical development of trade perspectives is attained through the potential for emotional activation sparked by the conceptual structures underlying the dynamics of metaphor use.

In a nutshell, unlike the conventional static approach to metaphoric communication of the Trump-Xi trade war in news discourse, this article illustrates the interconnected dynamics of metaphor use in governmental corpora. The big governmental database provides us with opportunities to scrutinize different forms of trade data in political communication. Our analyses of dynamic elements in such discourse offer a novel method to capture the diachronic evolution of socio-political negotiations in a historically developed political context which traditional approaches are unable to track. It allows for the rethinking of existing theories and methodologies about metaphor studies in political discourse, and encourages the development of new dynamic models which further our understanding of governmental communication as context-shaped and context-renewing. The potential of this unique dynamic view of metaphor awaits testing in other kinds of political discourse embedded in complex political contexts.

Declaration of competing interest

None.

CRediT authorship contribution statement

Xiaojuan Tan: Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Resources, Software, Validation, Visualization, Writing – original draft, Writing – review & editing. **Alan Cienki:** Conceptualization, Formal analysis, Funding acquisition, Investigation, Project administration, Supervision, Writing – original draft, Writing – review & editing.

Acknowledgment/Funding

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