Analyzing the Cognitive Impact of Trauma from a Metaphorical Perspective: A Case Study on the Attempted Assassination of Donald Trump

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Abstract—**Research indicates that trauma can significantly affect human cognition. While previous studies have extensively examined the psychological consequences of trauma, the majority have focused on the long-term effects, particularly in relation to post-traumatic stress disorder, due to challenges in data collection. This paper seeks to fill this gap by introducing an interdisciplinary approach that combines cognitive linguistics and trauma theory to investigate the immediate cognitive effects of trauma, specifically through the analysis of metaphorical language. We explore the cognitive impact of trauma by analyzing Donald Trump's presidential campaign speeches delivered before and after the 2024 attempted assassination. Using MetaPro, a computational tool designed for metaphor analysis, we identify cognitive patterns from a large corpus of speeches. Our findings suggest that the assassination had a certain effect on Mr. Trump's cognitive processing, as reflected in changes in his metaphorical concept mappings. This traumatic event may prompt Mr. Trump to psychologically retreat into the cognitive patterns in 2016.**

Index Terms—**Cognitive Analysis, Trauma, Metaphor, MetaPro**

I. INTRODUCTION

The cognitive impact of trauma has long been a subject of interest in psychological studies, with growing attention to how individuals process their experiences and behave in the aftermath of traumatic events. Trauma profoundly disrupts cognitive and emotional functioning, often leading to alterations in-memory processing, attention, and perception [1]. Traumatic experiences, by their very nature, challenge the brain's ability to integrate and make sense of overwhelming stimuli, which can result in fragmented or distorted cognitive representations of the event and intense emotional responses.

On 13 July 2024, Donald Trump, former U.S. president and the Republican Party's presumptive nominee for the 2024 presidential election, survived an assassination attempt during a campaign rally near Butler, Pennsylvania, sustaining a gunshot wound to his upper right ear. This traumatic event likely triggered considerable cognitive and emotional effects, as life-threatening experiences are known to induce psychological responses such as heightened anxiety, hypervigilance, and alterations in cognitive processing.

Analyzing the post-traumatic effects experienced by Trump after this assassination attempt is valuable for understanding potential cognitive shifts during his presidential campaign and assessing whether the trauma influenced his policy decisions and governance style. Previously, researchers used a variety of methods to study post-traumatic effects, e.g., Post-Traumatic Stress Disorder (PTSD), including clinical interviews and questionnaires [2], PTSD checklists (PCL) [3], functional MRI (fMRI) [4], heart rate variability (HRV) [5], and prolonged exposure therapy [6]. While these conventional methods are valuable for diagnosing PTSD and assessing biological and psychological responses to trauma, they are limited in uncovering the nuanced cognitive changes that occur after a traumatic event. Furthermore, for a public figure like Donald Trump, it is highly impractical, if not impossible, to administer such invasive assessments, e.g., clinical interviews, neuroimaging, or HRV measures. His position and the nature of his public life demand a more accessible, non-invasive approach for studying cognitive shifts in response to traumatic experiences.

This challenge calls for alternative methods that can unobtrusively capture cognitive changes through naturally occurring data, such as public speeches, interviews, or written statements. Cognitive science has increasingly recognized the potential of language as a window into thought, with metaphorical language offering particularly rich insights into how individuals process and make sense of world [7], [8]. Metaphors are not merely rhetorical devices but reflect underlying cognitive structures from concept mappings (see Section III for details), often revealing deep-seated emotional and cognitive patterns that may not be consciously accessible or easily measured through traditional diagnostic tools.

In light of this, we propose a novel approach that analyzes the cognitive impact of trauma from a metaphorical perspective. We collected Mr. Trump's official speeches from his 2016 and 2024 presidential campaigns. The 2024 speeches were further divided into two segments: those delivered before

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and those after the gunshot incident on 13 July 2024.

Next, MetaPro [9] is employed to parse metaphorical concept mappings within the speeches. By comparing the concept mappings derived from the pre- and post-gunshot speeches in 2024 with those obtained from the 2016 speeches, our goal is to analyze the cognitive patterns and potential shifts in Mr. Trump's mind, including the following research questions: **1)** What are the frequent concepts and concept mappings, presented in Donald Trump's speech over different periods? **2)** How did the attempted assassination impact Mr. Trump's concept mapping patterns?

The first research question is studied in Section V-A; The second question is studied in Sections V-B, V-C and V-D. By investigating the most frequent concepts and concept mappings, we find that the attempted assassination did not significantly alter Donald Trump's overall cognitive patterns, as the most common target concepts, source concepts, and concept mappings remain consistent across different periods, namely 2016, 2024 pre-gunshot, and 2024 post-gunshot. However, the cognitive patterns observed after the gunshot incident show a stronger similarity to those from 2016, compared to the pre-gunshot period. This suggests that the traumatic experience may have caused Mr. Trump to psychologically retreat into earlier cognitive modes, potentially as a coping mechanism to regain stability and preserve his sense of self by reverting to familiar conceptualization modes.

The contributions of this work can be summarized as follows: (1) We introduce a practical method for analyzing an individual's cognitive patterns through metaphorical language in speeches. This approach provides a means of uncovering cognitive patterns without the need to involve the subject in direct clinical assessments. (2) We examine the cognitive shifts in Donald Trump following the attempted assassination on 13 June 2024. The findings explain the impact of the gunshot incident on his conceptualization framework.

II. Related Work

Weathers et al. [3] evaluated the reliability and validity of the PCL by conducting repeated session tests and comparing the results with the Structured Clinical Interview for DSM (SCID). Javidi and Yadollahie [10] studied various aspects of PTSD using descriptive and retrospective analyses. Cameron and Gusman [11] developed a brief 4-item PTSD screening tool, and evaluated its effectiveness by comparing diagnostic concordance with the PCL and the Clinician Administered Scale for PTSD (CAPS). Kessler et al. [12] used cross-sectional survey data to evaluate the risk of developing PTSD following different types of trauma. Yehuda [13] employed methods such as epidemiological surveys, clinical assessments, and neurobiological tests to study PTSD, aiming to evaluate the incidence, risk factors, symptom manifestation, comorbidity, and effectiveness of treatment methods for PTSD.

These research methods, which primarily use questionnaires and structured interviews, focus on long-term PTSD symptoms and diagnoses rather than short-term cognitive changes. Due
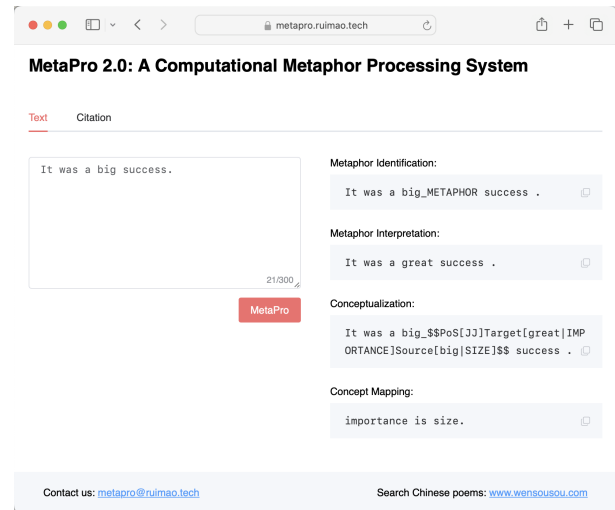

Fig. 1. A sample output from MetaPro [9].

to their reliance on limited questioning and emphasis on symptom frequency and intensity, they often overlook subtle cognitive shifts. By assessing subjects at discrete time points rather than through continuous monitoring, these methods are suboptimal for capturing short-term cognitive changes.

III. Preliminary

Conceptual Metaphor Theory [7] believes that metaphors are not just linguistic expressions but also reflect human thought and cognition. Metaphors shape how people understand abstract concepts by mapping them onto more concrete experiences. Without metaphors, the understanding of abstract concepts, e.g., "LOVE" is incomplete. Metaphors function by mapping knowledge from a target domain (an abstract concept) onto a source domain (a more concrete, physical experience). For example, in the metaphor "time is money" (also a concept mapping), the concrete experience of MONEY (source domain) is used to explain the concept of TIME (target domain). Concept mappings, which represent the systematic relationships between source and target domains in metaphorical expressions, are valuable for cognitive analysis because they reveal underlying thought patterns. Individuals often employ different concepts to express their unique understanding of specific ideas. For instance, younger couples who have recently fallen in love may conceptualize LOVE as MAGIC, while older couples, having shared much of their lives together, may view LOVE as JOURNEY. These metaphorical expressions are shaped by personal experiences and conceptual frameworks, making metaphors a valuable tool for cognitive analysis.

MetaPro[1] [9] is used to parse concept mappings from text. It comprises three computational modules, namely metaphor identification [14], metaphor interpretation [15], and concept mapping generation [16], which leverage the strengths of neurosymbolic AI and interdisciplinary methodologies [17]. The latest version incorporates a novel pre-trained language

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[1]https://metapro.ruimao.tech

	2016	2024 Pre	2024 Post
# speech	59	8	14
Avg # words	3258	7983	10161
# metaphors	7346	3650	8303
# unique TC	566	452	562
# unique SC	542	398	542
# unique CM	1828	1159	1849

model, based on an anomalous language modeling task [18]. Given an input sequence, MetaPro first identifies metaphors on a token level. Then, the identified metaphor is paraphrased into its literal counterpart. Finally, the target concept is abstracted from the paraphrase, while the source concept is abstracted from the original metaphorical word. The concept mapping is represented as the form of "a target concept is a source concept". For example in Fig. 1, given "it was a big success", MetaPro identifies "big" as a metaphor, which means "great". The target concept "IMPORTANCE", and the source concept "SIZE" derived from "great" and "big", respectively. MetaPro was used across various cognitive analysis domains, including finance [19], [20], machine intelligence [21], politics [22], weather disasters [23], and mental health [24]. Surveys show that it is the sole end-to-end system capable of generating concept mappings for open-domain applications [25].

IV. DATASET

The corpus used for our analysis originates from "The American Presidency Project"[2] and "C-SPAN"[3]. The developed corpus is designed to encompass carefully considered statements by Donald Trump, maintain a clear thematic focus, and remain consistent for comparison over an extended period of time. Thus, we chose his official speech on the campaign instead of the transient variety shows, Twitter, etc. We used "The American Presidency Project", which has compiled the messages, documents, or papers of American presidents from 1789 to the present[4], to obtain campaign speeches from 1 June 2016 to 31 December 2016. Meantime, we used "C-SPAN", a network that mainly televises U.S. political events[5], to obtain campaign speeches from 1 June 2024 to 1 September 2024.

The dataset is divided into 3 stages: 2016; before the gunshot incident, from 1 June 2024 to 13 July 2024; after the gunshot incident, from 14 July 2024 to 1 September 2024. Table I shows the statistics of metaphors, concept mappings, target concepts, and source concepts used in the following analysis at different time stages. It can be seen that we have obtained sufficient concept mappings from our developed corpus, allowing us to conduct a systematic examination of Donald Trump's cognitive patterns over different stages.

[2]https://www.presidency.ucsb.edu/

[3]https://www.c-span.org/

[4]https://en.wikipedia.org/wiki/The_American_Presidency_Project

[5]https://en.wikipedia.org/wiki/C-SPAN

	2016	2024 Pre	2024 Post
Target	ACT	ACT	ACT
	ACTIVITY	SIZE	ACTION
	ACTION	ACTION	SIZE
	SIZE	POSSESSION	ACTIVITY
	STATE	ACTIVITY	POSSESSION
	POSSESSION	STATE	DIRECTION
	DIRECTION	COLLECTION	COLLECTION
	CHANGE_OF_STATE	EVENT	STATE
	COLLECTION	CHANGE_OF_STATE	CHANGE_OF_STATE
	EVENT	DIRECTION	EVENT
Source	ACTION	ACTION	ACTION
	MOTION	IMPORTANCE	ACT
	ACT	MOTION	IMPORTANCE
	IMPORTANCE	ACT	MOTION
	POSITION	POSITION	POSITION
	STATE	STATE	ACTIVITY
	ACTIVITY	ACTIVITY	LIQ
	SIZE	SIZE	STATE
	CHANGE_OF_LOCATION	LIQ	SIZE
	LIQ	PERCEPTION	PERCEPTION
Mapping	SIZE IS IMPORTANCE	SIZE IS IMPORTANCE	SIZE IS IMPORTANCE
	DIRECTION IS POSITION	ACT IS ACTION	DIRECTION IS POSITION
	ACT IS MOTION	ACT IS MOTION	COLLECTION IS LIQ
	ACT IS ACTION	COLLECTION IS LIQ	ACT IS MOTION
	COLLECTION IS LIQ	DIRECTION IS POSITION	ACT IS ACTION
	STATUS IS IMPORTANCE	POSSESSION IS ACT	IMPORTANCE IS SIZE
	IMPORTANCE IS SIZE	IMPORTANCE IS SIZE	POSSESSION IS ACT
	POSSESSION IS ACT	ACTION IS MOTION	STATUS IS IMPORTANCE
	MESSAGE IS COGNITION	STATUS IS IMPORTANCE	ACTIVITY IS WORK
	EVENT IS MOTION	POSSESSION IS ACTION	ACTION IS DISAPPEARANCE

V. FINDINGS

A. Frequent Concepts

By analyzing the 10 most frequent target concepts, source concepts, and concept mappings in 2016, pre- and post-2024 gunshot incident from Table II, we find that there has been a change in the ranking order of three steps, yet the content itself has remained largely unchanged. The continued presence of the most frequent target concepts, source concepts, and concept mappings suggests that Donald Trump's cognitive patterns have remained generally stable across the three periods.

Frequent target and source concepts analysis. ACT, ACTION, MOTION, ACTIVITY and EVENT expressed attention to changes in actions and specific events. For instance, political decisions were framed as actions that necessitate implementation, elections were characterized as events [7], and economic progress was metaphorically described as forward movement [26]. Meanwhile, STATE and CHANGE_OF_STATE reflected on the stability and variability of conditions, with policy effects being described as causing change [27]. IMPORTANCE, POSITION and PERCEPTION were related to value ordering and perceptual experience [24], [26], such as portraying political views as perceptions and political standings as positions. SIZE, COLLECTION and LARGE_INDEFINITE_QUANTITY were related to scale, group, and influence. Large-scale issues were regarded as significant challenges, and the metaphor of scale was employed to describe the magnitude of the problem. Furthermore, POSSESSION and DIRECTION indicated the need for control and ownership, emphasizing the orientation towards goals, with the state being described as possessing resources [26].

Frequent concept mapping analysis. SIZE IS IMPORTANCE and IMPORTANT IS SIZE emphasized the importance of things through scale [24], [28]. This perspective infers that Mr. Trump
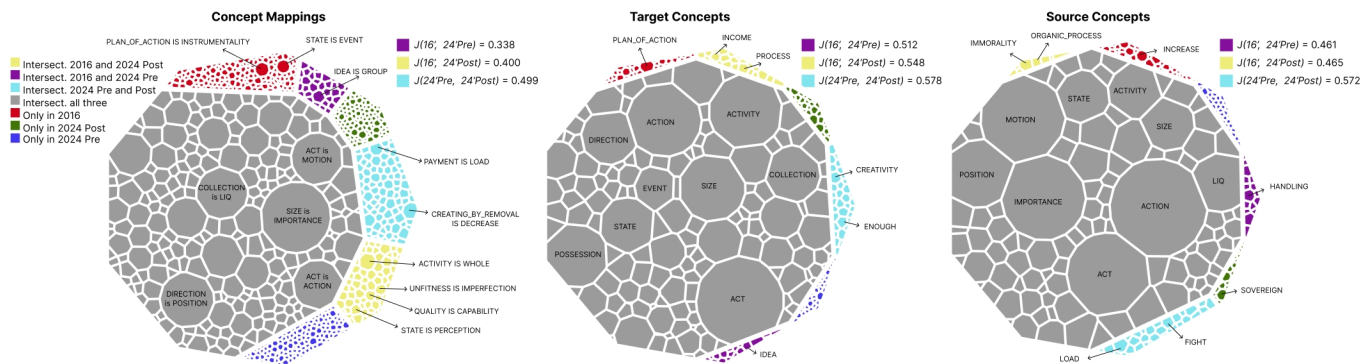
Fig. 2. The intersected concepts and concept mappings between the 500 most frequent concept mappings over different periods and their Jaccard Similarity.

places a premium on grandiosity, as evidenced by his talks surrounding "big league","We are going to build a big, beautiful wall", "It will be huge, the biggest tax cut in history".

DIRECTION IS POSITION used spatial concepts to comprehend and articulate policy and social stances [29], potentially reflecting Mr. Trump's inclination to underscore definitive directions and positions to steer the United States towards a specific trajectory. He used expressions like "make America great again", linking the "forward" direction to rising America's stature, "We are going to make America great again". The increased frequency of this concept mapping after the gunshot incident also indicates a stronger commitment to his positions and directions.

ACT IS MOTION and ACT IS ACTION transformed abstract ideas into tangible actions [19], which help to understand complex things [22]. These metaphors illustrate the connection between human cognitive systems and physical experiences, highlighting how our conceptual understanding is fundamentally shaped by our bodily interactions and actions. For instance, Donald Trump frequently used the concept of movement as a metaphor for proactive engagement and relentless progress, e.g., "We will move forward with our agenda", "We will take our action".

COLLECTION IS LARGE_INDEFINITE_QUANTITY reflected concerns about the quantity and importance [19]. This indicated that when Mr. Trump talked about policies, he may use aggregation or enumeration to emphasize quantity [30], listing policy achievements, critics' arguments, number of supporters, breadth of policy, etc. He talked about "We will create millions of new jobs", "I have had tremendous success...".

STATUS IS IMPORTANCE emphasized the relationship between status and importance. He mentioned the pivotal role of himself or his policies to the United States [31], such as "Under our leadership, the United States will be respected again", "I'm the president of law and order".

POSSESSION IS ACT used the concept of act as a metaphor for possession and control [23]. This could mean that Mr. Trump values control and command over economic assets or policy outcomes. Here's how he articulated this belief: "We will have a safe country", "I possess the best words".

New concept mappings that appear in top 10 after the gunshot incident. ACTIVITY IS WORK reflected the notion that any activity requires effort and labor to achieve the intended outcomes or objectives. This mirrors Mr. Trump's inclination to underscore the hands-on and purpose-driven essence of actions, alongside systematic endeavors essential for the realization of ambitions. For instance, his remarks "We're going to bring back our jobs and rebuild our industries".

ACTION IS DISAPPEARANCE expressed the action of eliminating or solving certain problems, and used disappearance as a metaphor for solving problems. This may suggest Mr. Trump's emphasis on eliminating problems through action, such as his oft-mentioned "elimination of problems or enemies", "We will eliminate terrorism", which may also include his desire to eliminate political rivals, policy obstacles, or public concerns about his personal security.

B. Cognitive Changes

In this study, Jaccard Similarity is used to quantitatively evaluate the similarity of cognitive patterns before and after the 2024 gunshot incidents, in comparison to those derived from speeches in 2016. Jaccard Similarity is a statistical measure used to gauge the similarity and diversity of sample sets. It is defined as the size of the intersection divided by the size of the union of two sets: $J(A,B) = \frac{|A \cap B|}{|A \cup B|} = \frac{|A \cap B|}{|A| + |B| - |A \cap B|}$. Higher Jaccard Similarity values indicate more similarity between the two sets. Here, we calculate Jaccard Similarity using the sets of the 500 most frequent concept mappings, target concepts, and source concepts. We focus on the most frequent items because they represent the most prominent and significant concepts and concept mappings. In contrast, less frequent ones are often tied to specific speech topics and may not provide an optimal representation of general cognitive patterns. The rationale for using 2016 cognitive patterns as a benchmark, and comparing them to the ones before and after the 2024 gunshot incident, is based on the hypothesis that significant events may impact or reshape the cognitive structures evident in public speeches and discourse [32]. By employing the 2016 patterns as a control group, we aim to statistically detect any shifts in concept mapping that might have emerged following the attempt assassination.
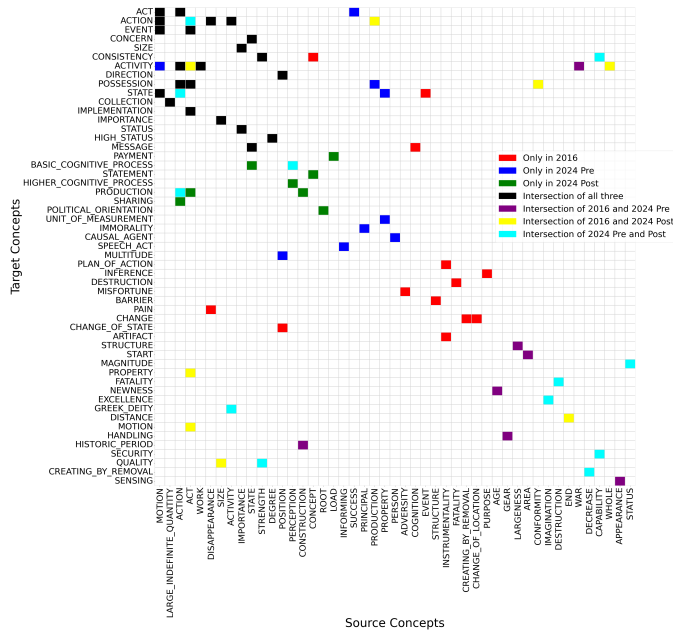
Fig. 3. The 50 most frequent concept mappings from 2016, as well as pre- and post-gunshot periods in 2024.

Fig. 2 shows a subtle cognitive shift in Donald Trump, where his concept mappings after 2024 gunshot incident exhibit a closer resemblance to those of 2016 compared to the period before 2024 gunshot incident. This is demonstrated by the observations in the figure, where the intersection areas and the Jaccard similarity values are notably larger between 2016 and 2024 pre (in purple), compared to the corresponding indicators between 2016 and 2024 post (in yellow). These observations suggest that after the 2024 gunshot incident, Mr. Trump's cognitive framework appears to revert to patterns more consistent with his earlier rhetoric, indicating a possible return to familiar themes or priorities. In the next sections, we investigate this from the perspective of distinct concept mappings at different stages and concept mapping changes.

C. Distinct Concept Mappings

In the analysis of the 50 concept mappings that occurred the most frequently in 2016, the pre- and post-gunshot in 2024, it was observed that certain mappings were unique to specific temporal periods, as illustrated in Fig. 3 in red, blue, and green.
Distinctive concept mappings in 2016. CONSISTENCY IS CONCEPT, MESSAGE IS COGNITION, INFERENCE IS PURPOSE highlight cognitive processes and linguistic utilization. These mappings underscore the stability of conceptual information and the purpose of reasoning [33], suggesting that individuals may regard abstract thought processes as foundational for constructing and interpreting their reality [7]. PLAN_OF_ACTION IS INSTRUMENTALITY, CHANGE IS CREATING_BY_REMOVAL, CHANGE IS CHANGE_OF_LOCATION, CHANGE_OF_STATE IS POSITION, ARTIFACT IS INSTRUMENTALITY, DESTRUCTION IS FATALITY emphasize the interplay between action, strategy, and outcome. This suggests that indi-

viduals perceive actions, such as destruction, movement, state change, and tool use, as means to an end [34]. MISFORTUNE IS ADVERSITY, BARRIER IS STRUCTURE reflect a recognition of challenges, treating misfortune and obstacles as tangible entities that necessitate overcoming. PAIN IS DISAPPEARANCE involves perception and experience, believing that that pain is not merely a physical sensation but also a profound psychological experience characterized by a sense of loss.
Distinctive concept mappings before gunshot in 2024. ACT IS SUCCESS, ACTIVITY IS MOTION, SPEECH_ACT IS INFORMING highlight the objectives and outcomes of action and communication. These mappings suggest that individuals view action as an essential pathway to achieving success [35] and value the dynamics of activities and the functionality of communication [36]. CAUSAL_AGENT IS PERSON believes that individuals are the primary instigators of change in events, underscoring the importance of personal responsibility and proactivity. POSSESSION IS PRODUCTION indicates that individuals believe that possession is a manifestation of productivity and success, and value material achievements [35]. STATE IS PROPERTY, UNIT_OF_MEASUREMENT IS PROPERTY consider state and measurement units as inherent properties. This suggests that individuals believe that the state of things is part of their nature, and that measurement and evaluation are key to understanding things [35]. IMMORALITY IS PRINCIPAL emphasizes the importance of principles and shows that unethical behavior is a violation of basic principles. MULTITUDE IS POSITION believes that quantity or magnitude is a measure of value and can affect its social standing.
Distinctive concept mappings after gunshot in 2024. BASIC_COGNITIVE_PROCESS IS STATE, STATEMENT IS CONCEPT, HIGHER_COGNITIVE_PROCESS IS PERCEPTION involve cognitive processes and conceptual understanding, indicating that individuals believe that thinking is a natural and continuous inner state [37], with language serving as the fundamental medium for the construction and expression of thoughts. Moreover the complex and in-depth thinking is closely related to sensory experience. PAYMENT IS LOAD correlates economic transactions with the psychological burden, which may stem from financial stress or resource scarcity concerns. PRODUCTION IS ACT, PRODUCTION IS CONSTRUCTION characterize production activities as concrete actions of realization and creation, requiring purposeful and planned participation. SHARING IS ACTION posits that sharing is a positive social behavior, which needs active implementation. POLITICAL_ORIENTATION IS ROOT suggests that political orientation is often regarded as a deeply ingrained belief system [38] and a core aspect of identity, resistant to change.

In conclusion, the concept mappings after the gunshot in 2024 are more similar to that in 2016 than before the gunshot in 2024, both focusing on the internal and cognitive aspects of experiences. For example: BASIC_COGNITIVE_PROCESS IS STATE, HIGHER_COGNITIVE_PROCESS IS PERCEPTION, STATE IS EVENT, MESSAGE IS COGNITION all emphasize state and cognitive processes; STATEMENT IS CONCEPT, CONSISTENCY IS CONCEPT involve the stability and consistency of
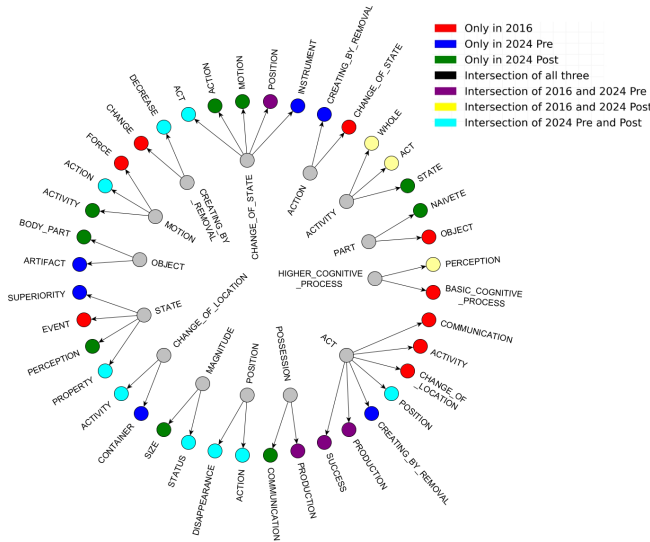
Fig. 4. The variations in source concepts (the colored) among the 100 most frequent concept mappings, while controlling for target concepts (the grey).

the concept; BASIC_COGNITIVE_PROCESS IS STATE, STATE IS EVENT highlight the importance of internal state; PRODUCTION IS ACT, SHARING IS ACTION, ARTIFACT IS INSTRUMENTALITY, PLAN_OF_ACTION IS INSTRUMENTALITY all have means to an end. In contrast, the pre-shooting phase stands out as more action-oriented and success-driven. Such as: ACT IS SUCCESS, ACTIVITY IS MOTION, CAUSAL_AGENT IS PERSON, POSSESSION IS PRODUCTION. Further analysis suggests that the cognitive shifts Donald Trump experienced following the gunshot could be attributed to Post-Traumatic Stress Response and Cognitive Reframing. This traumatic experience causes Mr. Trump to psychologically retreat into earlier cognitive modes [39], as a means of re-establishing stability and self-preservation by reverting to familiar conceptualization modes. This retreat, although initially a response to trauma, may stabilize his competitive advantage quickly in an uncertain environment by employing a familiar strategy. It allows Mr. Trump to tap into the rhetoric, and persona that resonated strongly with his base during the 2016 campaign. The evolution from MESSAGE IS COGNITION to STATEMENT IS CONCEPT illustrates a reconfiguration in Mr. Trump's approach to information intake and mental processing; the progression from PLAN_OF_ACTION IS INSTRUMENTALITY to ACT IS SUCCESS to PRODUCTION IS ACT and PRODUCTION IS CONSTRUCTION indicates a profound re-examination of the dynamics between action and achievement, signifying a deeper level of understanding [26].

D. Concept Mapping Changes

Fig. 4 shows the source concept changes by controlling target concepts. The concepts are obtained from the 100 most frequent concept mappings over different stages. In 2016, Donald Trump associated the target concept ACT with a series of dynamic processes, such as ACTIVITY, CHANGE_OF_LOCATION,

COMMUNICATION, PRODUCTION, SUCCESS. This reflects a cognitive framework that perceives behavior as a multifaceted and fluid process. Before the gunshot in 2024, Mr. Trump associated ACT mainly with PRODUCTION, POSITION and SUCCESS. Cognitive focus narrows and shifts to a more organized and results-oriented perspective. A new source CREATING_BY_REMOVAL was created. After that, there has been a notable reduction in the complexity of ACT, with it being distilled into the single source concept, POSITION. This could signify the operation of a psychological defense mechanism, where individuals simplify complex concepts in order to process trauma and stress cognitive load [40].

CHANGE_OF_STATE IS POSITION and STATE IS EVENT were Mr. Trump's concept mappings in 2016. However, before the gunshot incident in 2024, there was a notable expansion in cognitive mapping, suggesting a complex and varied comprehension of change and state. For example, CHANGE_OF_STATE was associated with ACT, INSTRUMENT and POSITION, while STATE was regarded as PROPERTY and SUPERIORITY. While after the gunshot incident, the concept of CHANGE_OF_STATE narrowed to ACTION, ACT and MOTION signifying a regression to a simpler cognitive model. This shift implies a return to a more rudimentary and literal interpretation of change, akin to the foundational understanding typical of early developmental stages [41], [42]. Furthermore, the STATE was regarded as PROPERTY and PERCEPTION which might suggest a propensity for individuals to rely on more concrete perceptual experiences when confronting complex internal states. This tendency could be associated with PTSD, as it often involves a retreat to more tangible cognitive processes in response to complex emotional experiences [43]–[45].

When we focus on the changes in Mr. Trump's concept mappings before and after the gunshot incident in 2024, we can find that the transition of OBJECT from ARTIFACT to BODY_PART may indicate Mr. Trump's increased concern for his own body and well-being [13], which was likely an immediate response to the stark realization of life's fragility in the wake of warfare incidents [46]. The shift of POSSESSION from PRODUCTION to COMMUNICATION suggested that individuals pay more attention to communication and contact with others, seeking social support and understanding [47], and it is related to the individual's increased need for socialization and communication after trauma [48]. The transformation of CHANGE_OF_LOCATION from CONTAINER to ACTIVITY may reflect the need for free and unrestricted movement [49].

VI. CONCLUSION

In this study, we utilized MetaPro to examine the cognitive impact of trauma on Donald Trump. Our findings suggest that the gunshot incident may have prompted Mr. Trump to psychologically revert to earlier cognitive patterns, potentially as a coping mechanism to restore stability and preserve his sense of self by returning to familiar modes of conceptualization. This strategic retreat into established cognitive frameworks could potentially enable him to gain a competitive advantage in an uncertain environment.

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