



## RESEARCH ARTICLE

Section: *Literature, Linguistics & Criticism*

## Trauma through cognitive lenses: Disrupted time and memory in slaughterhouse-five

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This study intends to assess *Slaughterhouse-Five* using Mental Spaces Theory, finding out how the war trauma disturbs our understanding of time and memory. It investigates how Billy Pilgrim's involvements of existence 'unstuck in time' characterize the psychological properties of war. In merging trauma, cognitive linguistics and literary studies, the study expands multidisciplinary practices for examining combat tales. It drives beyond symbolic or historical readings of *Slaughterhouse-Five*, emphasizing the descriptive power of Mental Spaces Theory in understanding narrative ruin. A hybrid textual analysis utilised on Fauconnier's Mental Spaces Theory and trauma theory. Significant instants including time shifts, memory loops, and mythical places such as Tralfamadore are thematically investigated as created mental concepts that help the protagonist traverse terrible trials. The findings indicated chronicle tendencies which identified to determine the cognitive reform of time and memory in the scenery of trauma. Accordingly, the scrappy timeline in *Slaughterhouse-Five* allows the mind to deal with unpleasant experiences. The theory enables past, present, and potential futures' coexistence, representing the nonlinear nature of traumatic memory recollection. Further implications are identified for policymakers and translation education through understanding trauma tales as mental operations more willingly than narrative deviations.

**KEYWORDS:** postmodernist features, Kazim Ali's poetry, technology, technological advancements

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## Introduction

The stories of war commonly aspect beyond battlegrounds and the heroic acts to examine the psychological values of battle. The work of Kurt Vonnegut's *Slaughterhouse-Five*, deeply considers mental variability of war narratives. Leading character, Billy Pilgrim, is breathing the past, travelling between times and struggling to appreciate his realism and memoirs. The tragedy style in the novel portrays the psychological confusion. The narratives trauma represents a valuable means for poring over the psychological influences of conflict, meanness, and personal tragedy in contemporary fiction (Torre, 2024). The authors frequently investigate the profounder lives of characters impacted by their past within post-war fiction, representing how time, memory and identity smash beneath the pressure of traumatic practices (Onega, 2025). Such stories examine perceptions in trauma changes and sequential storytelling. The contemporary literature represents inner turmoil of trauma survivors and reservation through split timelines and unreliable speakers (Crockett, 2023). This modification has shaped a fictional atmosphere in which time, memory and reality are twisted, permitting readers to understand trauma as an intellectual and emotive condition.

The structure of split story represents more than a creative choice. It also displays how the trauma can change an individual's perception of location and time. It points toward conflicts more than historic bounds, understanding the present and generating new realities that are often hard to be differentiate between reality and fantasy (Wiesepepe et al., 2025). At this point Mental Space Theory (MST) can help to hold structure fractured narrative of the novel. Linguistically, Gilles Fauconnier, defined the theory as cognitive representation of situations or knowledges that can be blended and intersection, predominantly for trauma (Hammadi, 2023). In *Slaughterhouse-Five*, alternative spaces created based on the wartime and postwar understandings, as well as Tralfamadorian bonds. These areas unite, and MST offer appropriate techniques for evaluating how these intellectual moves represent Billy's broken mental state.

Besides, the real challenge in understanding trauma tales represented in translating them from the source into different languages, cultures and cognitive systems. The reason might correlate to the emotions, severed timelines, varied experiences and personal emotional. In the case of translating from English to Arabic needs thoughtful understanding and interpretation of cultures to process trauma (Khalaf, Al-Abbas, Mahmood, Shabeeb, et al., 2025). Carefully transported in English via narrative gaps or asymmetrical association may not interpret well to Arabic without losing connotational meaning. Literature portrays pain through calm, pause, and allegory, but these strategies may change between languages, necessitating cautious selections to reserve emotive and cognitive values (Wehrs & Wentworth, 2024).

Accordingly, addressing these discrepancies is essential to understanding the terrible experiences of Billy Pilgrim in military, which shaped his mental scenery and inclined his perception of time, memory and reality in *Slaughterhouse-Five*. The present investigation utilizes Mental Space Theory (MST) to explore how trauma can influence the structure and identity of new story. It also will contribute to acquire a detailed knowledge by what means complex psychological experiences are interconnected across different languages and cultures. The study's findings might be beneficial for translators of complicated trauma stories and researchers observing innovative theoretic outlines for investigating literature influenced by memory, confusion and emotive disagreement. The study addresses the following questions:

1. Does MST support understanding the structure storytelling of *Slaughterhouse-Five*?
2. What are the translation issues posed by trauma-induced crumbling and chronological alterations?
3. How can MST assist translation procedures to preserve the emotive and mental extents of the source text and target translation?

## Time, Narrative and Trauma Fragmentation

One of the utmost distinguished features of *Slaughterhouse-Five* is the withdrawal from conservative storytelling. Billy Pilgrim's biography is not chronologically planned; rather, the story extents numerous times, as well as his time as a warrior in World War II, his post-war profession as ophthalmologist, and his time on the interplanetary planet Tralfamadorian. These variations are awkward, representing Billy's fragmented insight of time. This non-linear assembly is more than merely an inspired choice; it represents Billy's trauma-related psychological state. Trauma can disturb how memories are treated, follow-on disengaged memories and a distorted standpoint of time (Clinch et al., 2021). Billy's involvements of being 'unstuck in time' validate this commotion, as he

naturally returns to his past and future, similar to survivors' traumatic memoirs. MST interprets these narrative disjunctions as the mind activating and combining many mental regions, each representing diverse stages of Billy's life in a non-sequential means while under psychological stress. This plotting reveals how trauma shapes the divisions between past, present, and imagined worlds.

The custom of Billy's peculiar sense of time is essential to understanding *Slaughterhouse-Five* structure and troposphere. This chronological displacement is highlighted when Billy turns out to be 'unstuck in time' blinking between his terrible time of war memories, the usual everyday actions, and life on Tralfamadorian (Suárez Chávez, 2025). Billy's automatic collapsible time and disjointed awareness might be intellectual responses to trauma, as the fears of Dresden and the irrationality of his life devastate his awareness, reorganizing his knowledges into nonlinear rational areas (Sapogova, 2024). According to Mental Space Theory, each call by Billy signifies a new mental space, some unpleasant, others fictional, stimulated by expressive instincts rather than temporal logic. Recursively combination these areas makes time seem spherical and reinforces the psychological principle that trauma influences temporal insight.

The expression 'So it goes' is additional narrative approach that reproduces Billy's altered reasoning; it is both a narrative theme tunes and psychological assistance for dealing with mortality and irrationality. Every time passing is declared human, animal or short-lived. It looks distant and reconciled, but it is actually a reasoning barrier; by repeating 'So it goes', the story evades emotional interaction, in which the mind regularizes loss to reduction emotional load (Maranges et al., 2017). Billy understands the expression as Tralfamadorian fatalism, which entitlements that all instants in time occur simultaneously and unchangeably, with no reason to crying or fear death. It practices a frequent theme response to trauma to connect the fragmented events, and it try to justify the irrational through usual detachment.

### **Mental Space Theory (MST)**

Mental Space Theory (MST), introduced in 1994, offers a cognitive outline for understanding the energetic construction of meaning in human reasoning and communication (Ahmadova, 2024). More willingly than dispensation material in a linear manner, our cognition generates mental spaces to establish and hold them. These spaces simplify the transformation from one setting to another, mingling concepts, and generating complex realities (Hoffmann et al., 2023). MST illustrates that meaning is resultant of immediate intellectual processes rather than language; words are only the apparatuses shaped to transform these spaces (Lefebvre, 2014). When someone says, 'Imagine you are on a beach' the hearer quickly visualizes a site other from the speaker's genuine realism, representing how humans can cognitively function in a diverse setting. Mental spaces are characterized with fluid and dynamic; they may cultivate by presenting new knowledge and cooperate, syndicate, or change according to the situations. Cognitive linguists contend the capability of generating and alternating situations is essential for inspiration, problem solving and understanding perceptions (Cienki, 2022).

Mental areas have the criteria of communication with one another. Coutanche et al. (2020) defined the conceptual combination as the process of combining extra mental areas to generate new meaning. For example, in metaphors like 'She is a shining star' talent, brilliance or affection are connected with the notion of a star. Moreover, it explains how humans might have multiple perspectives, and conversations sometimes involve imagining others' perspectives while keeping their own (Dancygier & Sweetser, 2012). Empathy, negotiation, and complicated thinking are possible with numerous mental worlds. To explore past, future, and imagined events, humans use mental spaces. When addressing the past, the mind makes a place for it while remaining present. Mental spaces also let us imagine possibilities without experiencing them (Ahmadova, 2024).

These spaces enable switching between contexts, whether we are recalling a conversation, thinking about the future, or interpreting a puzzling incident. This concept is important in trauma and narrative construction. Mental Space Theory (MST) assists in evaluating trauma in narrative texts with interrupted timelines and reality fractures. Trauma may impair the mind's capacity to organize events, and MST helps explain how people create and traverse diverse experiencing spaces: past, present, and imagined (Dann, 2024). This theoretical paradigm is notably useful in the literature, especially a nonlinear traumatic memory processing, in which characters experience time differently. They switch between emotional, fearful, and memory-distorted mental pictures.

## **MST and Trauma Studies**

Trauma changes how people see and interpret reality, causing psychological fragmentation. Mental Space Theory (MST) illustrates how the mind creates and navigates mental representations or spaces to make sense of events. Traumatized people typically develop mental spaces to isolate or compartmentalize upsetting memories, especially if they are too stressful to handle (Solinski, 2022). In addition, Das et al. (2022) identified an ability of these fragmented areas to last without logical steadiness. Similarly, trauma stayers commonly designate their memories as scattered, invasive or separated from chronological time. Frequently, trauma narratives can describe psychological and mental spaces as moves in viewpoint, fractured timelines, or dream-like events to simulate character or narrator uncertainty. MST enables understanding the generation of internal beliefs and continuity across cognitive states, making it beneficial for psychological effects of trauma (Theßen & Sulz, 2024).

Intellectual displacement occurs when trauma stayers establish intellectual zones that comprise varied events, some of which are not available to the mindful self. These irregular intellectual sectors might enlighten trauma stories' moves, sequential misrepresentation, and emotional severance (Behrens, 2025). Such characters may behave or speak differently, reflecting their necessity to reconcile dreadful trials with their current realism. It demonstrates how temporary conceptual spaces developed within minds to deal with overwhelming emotions, making the assemblance of MST vital for the study. These represents the functional cognitive techniques for survival functions, where the mind holds throbbing experiences to avoid dysregulated deeds (Cohen, 2021).

Over time, trauma-induced mental spaces may influence perception, decision-making, and behavior without the individual's awareness. Trauma interrupts memory's chronological flow, therefore, it resists linear storytelling (Wiesepape et al., 2025). MST can track and explain flashbacks, repeats, and rapid awareness shifts by recognizing the underlying structure of these mental creations. By employing temporal loops, unreliable narrators, and fractured storytelling, authors effectively translate the cognitive imprint of trauma into narrative space (Ong, 2020). In this context, MST becomes a useful tool to understand how trauma shapes both the characters' inner experiences and the overall structure of the narrative.

## **Relevance to Translation Studies**

MST, which has its roots in cognitive linguistics, is becoming increasingly relevant outside of theoretical discourse, especially in the field of translation studies (Hong & Rossi, 2021). The psychic disintegration brought on by trauma is increasingly reflected in modern literary writings, making the task of a translator much more than simply translating words. It requires navigating a non-linear, complex, cognitively loaded tale. When translating fragmented or psychologically complicated texts, MST can help translators analyze and make strategic decisions. The theory focuses on minds' constructs, shifts, and blends mental representations that fits translators' interpretive work, especially in trauma narratives with memory shifts, inner dialogues, and distorted perceptions (Khalaf, Al-Abbas, Mahmood, & Jaalout, 2025).

Cognitive linguistics has already significantly impacted translation in several ways. Zhou and Wang (2025) emphasized how construal, embodiment, and metaphor theory influence the source language and the mental work necessary for precise and culturally aware translation. These conclusions have been cast-off to legal, literary and therapeutic translations, but trauma stories offer a sole challenge since the language classically imitates the central character inaccurate rational. Scenes may change brusquely, expressions may not be in sequential order, and character's insight may blend imaginary and realism. Because of this mental complication, the translator must comprehend not only what is being told, but also how and why it is being carried in that specific style (Boase-Beier, 2023).

Accordingly, MST empowers to make sense of apparently unreasoning or split linguistic structures by highlighting the creation and initiation of mental spaces in immediate dissertation (Phelan, 2020). MST can also support inferring intellectual disruption, or the inner synthesis of memory, imagination, and realism. It inspires them to look beyond sentence-level information and reflect how mental spaces interrelate or struggle in order to develop the story's fundamental reason. This is useful in trauma tales, when the emotional validity of the text is as vital as its linguistic precision. Thus, MST affords a compact background for understanding and interpretation of trauma stories while conserving their intellectual and emotive depth.

## Methodology

This article utilised a qualitative, text-based analysis approach that focused on cognitive-linguistic and comparative translation analysis. Kurt Vonnegut's original English edition of *Slaughterhouse-Five*, which was released by Granada Publishing Limited in 1972, and the Arabic translation of the novel published by KALEMAT in 2016, represents the main data sources for their availability in academic public libraries and digital archives. These texts provided a parallel multilingual corpus for in-depth analysis of narrative features such as temporal changes, identity fragmentation, imagined worlds, and trauma-related style pointers. The analytical framework of Mental Space Theory (MST) is utilised, which is a cognitive linguistic paradigm created by Gilles Fauconnier (Fauconnier & Turner, 2006).

A multi-stage coding technique was used to analyse the data. The primary stage involved manually interpreting of selective sections for cognitive-linguistic characteristics utilizing MST theoretical types (e.g., input spaces, blends, compression patterns). The translated parts in the Arabic translation were then deliberate to understand how these parts were preserved, changed, or omitted. A contrastive analysis was conducted to regulate patterns of deviation and convergence between the two versions. Accordingly, NVIVO software for qualitative data analysis used to unite textual notes and code recurring translation procedures (e.g., literal translation, adaption, omission). The program maintained thematic coding, allowing for cross-referencing of cognitive assemblies and trauma indications.

Numerous strategies were utilised to confirm trustworthiness of the study. First, a triangulation method was used, integrating linguistic theory, trauma, and translation analysis, to maintain a multidimensional understanding of the data (Malamatidou, 2017). In addition, peer debriefing was steered with cognitive linguistics and Arabic translation experts, to assess the analytical process and presented critical feedback on the explanation of intellectual space unification across languages. Audit logs were conserved to file each stage of the translation assessment and theoretical mapping, hence improving the study's transparency and replicability. Moreover, inter-rater reliability was confirmed by directing a second analyst code a subsection of the data to guarantee consistent explanation (Belotto, 2018). Finally, the study followed ethical rules of using published supplies, providing proper bibliographic acknowledgement for original novel and the translated text.

## Data Analysis

To explore trauma representation, carefully chosen story parts from *Slaughterhouse-Five*, as well as their Arabic translation as bilingual parallel corpus, were analysed by means of Mental Space Theory (MST). The study focused on prominent samples such as 'Billy Pilgrim's temporal displacements, Tralfamadorian philosophy and the Dresden bombing', which all validate complex cognitive organization and trauma-induced crumbling. The analytical process involved multi-stage coding of carefully selected excerpts representing core trauma-related phenomena using NVivo software based on bilingual corpus of original and translation of *Slaughterhouse-Five*. Each excerpt was annotated for MST constructs, including input spaces, generic space, blended space, space builders, and compression mechanisms (time, identity, causality). All analysis stages had been presented in accordance to the proposed research questions in the current research.

## Narrative Structure of *Slaughterhouse-Five* and MST

The MST-based analysis demonstrates that the narrative structure of *Slaughterhouse-Five* is best understood as a network of dynamically interacting mental spaces, rather than a linear temporal sequence. Billy Pilgrim's condition of being 'unstuck in time' reflects continuous cognitive shifting across multiple input spaces, each corresponding to distinct experiential domains. Prominent configurations of MST are shown in Table 1.

**Table 1 Mental Space Configuration in Key Narrative Episodes**

| Narrative Episode        | Input Spaces                                       | Blended Space                                       | Cognitive Effect                      | Trauma Function                |
|--------------------------|--|---|---------------------------------------|--------------------------------|
| Dresden bombing          | War reality; immediate sensory memory              | Collapsed temporal space merging past and present   | Temporal compression; vivid intrusion | Re-experiencing trauma         |
| Tralfamadorian abduction | Science fiction reality; philosophical abstraction | Hybrid reality combining determinism and detachment | Ontological ambiguity                 | Psychological coping mechanism |

|                          |                                  |  |                      |                          |
|--------------------------|----------------------------------|--|----------------------|--------------------------|
| Post-war life (Ilium)    | Domestic stability; social norms | Fragmented identity across timelines   | Identity diffusion   | Inability to reintegrate |
| “So it goes” repetitions | Life events; death events        | Normalization of death across contexts | Emotional flattening | Defensive dissociation   |

The opening chapter of the English version already establishes the fragmented cognitive structure of the narrative, for example ‘All this happened, more or less’. This statement functions as a space builder, introducing epistemic uncertainty and signaling that the narrative will operate across multiple, loosely connected mental spaces rather than a single stable reality. Likewise, ‘So it goes’ derives subsequent references of death, helping as a cognitive anchor that joins numerous psychological areas (war, memory, reflection) into a cohesive compound setting of empirical notice. Table 2 provides further analysis and representation of MTS in source English version.

**Table 2 MST Analysis of Source Text Examples**

| Textual Example (English)                                 | MST Component               | Cognitive Function               | Trauma Representation  |
|---|-----------------------------|----------------------------------|------------------------|
| “All this happened, more or less.”                        | Space builder               | Signals epistemic instability    | Memory unreliability   |
| “So it goes.”   | Space builder + compression | Links death events across spaces | Emotional numbing      |
| “I really did go back to Dresden...”                      | Input space trigger         | Shifts from narration to memory  | Intrusive recollection |
| Non-linear anecdotes (e.g., war vs. post-war reflections) | Multiple input spaces       | Discontinuous narrative flow     | Temporal fragmentation |

From an MST standpoint, these elements cartel to form a mixed narrative space in which past, present, and imagined realities exist. Consequently, trauma is embossed both theoretically and physically through recurrent passage between mental sections. The study determines that combination processes are critical to the novel’s structure. Numerous temporalities coexist inside the same narrative moment, resultant in what Fauconnier and Turner denote to as ‘time and causality compression’. This portrays trauma’s reasoning inscription, in which past events penetrate present consciousness without cautioning or logical classification.

As well, planetary creators like ‘Billy Pilgrim has come unstuck in time’ and ‘So it goes’ assist as cognitive initiations. They designate conversions between intellectual realms and control how readers pass through the split story narration. These indicators carry constancy to apparent incoherence, revealing that the fragmentation of text is cognitively well-ordered rather than confused. Besides, Billy Pilgrim’s state of being ‘unstuck in time’ might be realized as a frequent oscillation between frequent input spaces like; ‘wartime experience, post-war domesticity, and Tralfamadorian life’. These places are not hierarchically ordered, but rather combined through conceptual mingling, follow-on the breakdown of linear temporality. The narrative’s disjunctive form reproduces the cognitive conflicts related with traumatic memory, together with the perseverance of invasive memories and the interruption of chronological sequencing. Table 3 places of interest for some noteworthy cases.

**Table 3 MST-Based Representation of Narrative Structure**

| Narrative Phenomenon   | MST Construct               | Textual Evidence                  | Cognitive Function           |
|------------------------|-----------------------------|-----------------------------------|------------------------------|
| Epistemic instability  | Space builder               | “All this happened, more or less” | Frames narrative uncertainty |
| Repetition of death    | Space builder + compression | “So it goes”                      | Unifies dispersed events     |
| Temporal non-linearity | Multiple input spaces       | War/post-war shifts               | Disrupts chronology          |
| Ontological plurality  | Blended spaces              | Tralfamadorian episodes           | Sustains ambiguity           |

On the other hand, the Arabic translation holds much of the macro-level description while close-fitting micro-level modifications in cognitive organization. For example, the English word ‘Slaughterhouse-Five’ is translated

as 'مقرر خلسملا'. This is a literal translation that precisely conserves referential sense. However, linguistic and cultural differences may make the word 'Slaughterhouse' as a metaphor for unconscious death less intense in Arabic. The recurrence of 'So it goes' (a fundamental MST space builder) is constantly replicated in Arabic 'بهذي اذكه', even though its recurrent straightforwardness and tonic detachment are slightly reduced due to grammatical fluctuations in Arabic. Table 4 exemplifies parallel textual analysis of the Arabic version.

**Table 4 Parallel Textual Analysis**

| English Source                   | Arabic Translation               | Strategy           | MST Impact                | Observed Effect                 |
|----------------------------------|----------------------------------|--------------------|---------------------------|---------------------------------|
| So, it goes.                     | بهذي اذكه                        | Literal repetition | Preserves space builder   | Slight rhythmic variation       |
| All this happened, more or less. | رثكأ، ثدح اذه لك لقا وأ          | Literal            | Maintains epistemic frame | Slight clarification            |
| Fragmented anecdotes             | رثكأال لمجال أميظنت              | Normalization      | Weakens disjunction       | Reduced cognitive fragmentation |
| Ambiguous tone                   | رثكأال اذغايصرلا لمجالا يف احوضو | Explicitation      | Collapses blended spaces  | Reduced ambiguity               |

These discoveries propose that MST not only enlightens the novel's structural complication but also determines its cognitive coherence, with fragmentation portion as a significant representation of trauma rather than a simple artistic unorthodoxy.

### Translation Challenges in Rendering Trauma-Induced Fragmentation

Comparative analysis of both versions designates that translating trauma tales offerings substantial difficulties at cognitive, stylistic, and structural levels. These complications generally branch from the confusion between preserving cognitive incoherence and meeting the requirements to target-language values that prioritize clarity, coherence, and explicitness.

#### A. Temporal Disjunction

Textual analysis indicates that the original English text displays recurrent and spotless conversions between mental realms, as exemplified in 'I really did go back to Dresden...'. Such conversion requires the reader to deliberately recreate chronological relations, so emulating the confusion essential in traumatic remembrances. On the contrary, the Arabic translation from time to time includes contained cohesive strategies, leading to a partial stabilization of temporal break and a reduction in cognitive disorder. Additional example in the English version for unexpected transitions between time frames; 'I went back there with an old war buddy...'. This phrase lacks transitional cues, convincing the reader to emotionally figure the transition between narrative stages. Equally, the Arabic translation 'ميديق برح قيديص ققفر ب كانه تدع' give the impression to combine implicit coherence, enabling these transitions. This increases readability but reduces the cognitive tremor influence related to trauma.

#### B. Repetitive Cognitive Anchoring

The saying 'So it goes' assists as crucial cognitive anchor, conserving reliability among fragmented narrative parts. The Arabic version preserves this relapse, however nuanced alterations in grammatical structure and prosodic rhythm moderate its overall influence. Due to its significance as a cross-space link within MST, even little deviations may undermine its integrative function. Furthermore, the expression 'So it goes' is persistently active subsequent other death-related incidences, such as 'His mother was incinerated in the Dresden firestorm'. MST delineates a density method that theoretically unifies frequent understandings of death. The Arabic translation conserves recurrence; nonetheless, the prosodic simplicity of the English phrase is stimulating to recreate, somewhat fading its efficacy as a cross-space anchor.

#### C. Identity Fragmentation

Narrative voice of *Slaughterhouse-Five* displays continuous transitions across auctorial, autobiographical,

and fictitious individualities. For example, ‘I indeed returned to Dresden...’. This generates overlying cognitive spheres of self-representation. Nonetheless, linguistic and technical boundaries in the Arabic translation having a tendency to reduce these alterations, leading to moderated identity fragmentation and a more cohesive narrative viewpoint. Moreover, the narrator hesitates between the roles as; observer, survivor, author, and character. In the Arabic translation, grammatical standards occasionally require obvious subject marking, which may affect in the stability of identity, thereby lessening the flexibility for trauma representation. Table 5 outlines other illustrations regarding the problems of translating into Arabic and the cognitive consequences on translators’ decision-making.

**Table 5 Translation Challenges and Cognitive Impact**

| Feature         | Function in Source Text | Translation Tendency | Cognitive Consequence |
|-----------------|-------------------------|----------------------|-----------------------|
| Temporal shifts | Disorientation          | Added cohesion       | Reduced fragmentation |
| Repetition      | Cross-space anchoring   | Minor variation      | Weakened integration  |
| Ambiguity       | Multiple blends         | Explicitation        | Reduced complexity    |
| Identity shifts | Fragmented subjectivity | Stabilization        | Reduced multiplicity  |

The utilisation of MST model does not only increase data analysis but also offers a systematic outline for filtering translation procedures. The model emphasizes the cognitive assembly of the original text, permitting translators to line up functional equivalency at the conceptual level over simple lexical or syntactic identical. This process highlights the successful translation of trauma tales dictates cognitive precision. Preserving unexpected transitions, despite their stylistic unconventionality in Arabic, is vital for supporting the empirical feature of shock. Likewise, refraining from clarifying unclear sections permits the projected reader to participate in the same explanatory procedures as the original reader. Table 6 represents MST-guided translation strategies.

**Table 6 MST-Guided Translation Strategies**

| MST Component          | Translation Strategy              | Practical Application               | Expected Outcome                        |
|------------------------|-----------------------------------|-------------------------------------|---|
| Space builders         | Maintain consistency and position | Uniform translation of “so it goes” | Preserved narrative rhythm and cohesion |
| Input space boundaries | Avoid over-explicitation          | Retain abrupt transitions           | Sustained disorientation effect         |
| Blended spaces         | Preserve ambiguity                | Avoid interpretive clarification    | Maintained cognitive complexity         |
| Compression patterns   | Reproduce density                 | Use concise, parallel structures    | Equivalent cognitive load               |
| Identity mappings      | Retain fluidity                   | Flexible pronoun/tense use          | Preserved identity fragmentation        |

**Discussion**

The present study validates the use of MST as an all-encompassing framework for undertaking all three research questions. The framework explains the cognitive practicalities of the novel’s narrative assembly, classifies key moments of tension in translation, and offers theoretically informed solutions for preserving the empirical realism of trauma. The findings offer an appropriate answer for the first research question. Whereas, MST offers a robust framework for understanding the non-linear narrative structure of *Slaughterhouse-Five*, as a network of dynamically interacting mental regions. These conclusions bear a resemblance to previous studies in cognitive narratology, which declare that fragmented narratives often signify fundamental cognitive processes slightly than aesthetic irregularities (Ahmadova, 2024; Cienki, 2022; Maranges et al., 2017). The use of longitudinal connectors such as ‘So it goes’ and epistemic markers like ‘All this happened, more or less’ validates previous declarations that trauma interjects temporal sequencing and produces non-chronological memory storing (Dann, 2024; Solinski, 2022).

As for the second research question, the findings identify three principal challenges: temporal disjunction, upholding recurrent cognitive anchoring and identity fragmentation. These problems line up with prior investigations on the translation of trauma and experimental narratives. Previously, Boase-Beier (2023) declares that literary translation must consider stylistic and cognitive influences, in addition to propositional contented. The experimental disposition in the Arabic translation to mitigate chronological changes and improve coherence

demonstrates what Baker (2018) denotes to as standardization, a prevalent translation method that emphasizes legibility but may reduce stylistic uniqueness. Likewise, the challenge of preserving recurrence (*e.g.*, So it goes) bring into line with Munday's (2022) remarks, which indicate that recurring phrases serve as discourse-level controllers and crucial for textual coherency. The matter of explicitation in the translation of unclear or mixed realities agrees with Herget and Alegre (2022) and Alkhaldi (2020) studies, which distinguishes explicitation as a general disposition in translation.

Subsequently, the study demonstrates that MST module can function as a methodological linkage between cognitive semantics and translation practice in response to third research question. The module highlights mental space architecture, permitting translators to distinguish which parts of the text are physically vital for meaning construction. This endorses current support for cognitively well-versed translation models (Risku, 2022; Halverson, 2024). This conclusion postulates that translation have to be alleged as a process of reconceptualization rather than just language transmission. The focus on preserving longitudinal architects, integrated environments, and density patterns agrees with these viewpoints and offers tangible ways for implementation. The findings designate that achieving equality in trauma stories requires preserving the reader's cognitive experience, especially the feelings of confusion and fragmentation, contributing to textual faithfulness.

## **Conclusion**

The current study demonstrates that MST delivers a comprehensive and elucidative outline for understanding the complicated narrative structure of the novel. What gives the impression to be separated or non-linear storytelling is, in reality, an intentionally structured system of mental spaces, associated by longitudinal constructs, blending trials, and compression mechanisms. In addition, the study designates that at translational level, the Arabic version effectively connects the main narrative and thematic issues. However, it validates reliable modifications in cognitive representation. These variations are typically linked to tendencies of explicitation and standardization, which, although improving legibility, may diminish crucial characteristics of the original text, like temporal disjunction and identity fragmentation. The results further validate these remarks by demonstrating differences in coding density, node frequency, and co-occurrence patterns between the two texts. These distinctions underscore the intrinsic challenge of maintaining both sense and cognitive understanding in the translation of trauma.

In conclusion, the study highlights that translating *Slaughterhouse-Five* and trauma tales requires not just linguistic accuracy but also a consciousness of the cognitive procedures that effect narrative implication and reader's perception. It further increases the understanding of encoding, interpretation, and transference of trauma across languages and cultures by integrating cognitive linguistics and translation studies. Finally, the study identified additional need for paradigm change in literary translation, highlighting cognitive and experiential accuracy as crucial elements of operative cross-cultural communication.

## **Implications**

The current data analysis validates significant consequences at several levels. Whereas, the findings contribute to the improvement of cognitive linguistics and translation studies inside university programs for policymakers to be deliberated in curriculum construction. Furthermore, it enables the utilization of corpora and explanation tools to improve cognitive and comparative study. Secondly, the study highlights the necessity for translators to attain a cognitive-functional approach, wherein their decisions are inclined by the function of linguistic structures in organizing mental areas. Lastly, the conclusions designate the necessity to comprise MST into translation syllabus, especially in literary and trauma translation courses.

## **Limitations and Future Research**

The current study presents significant perceptions on trauma at war; however, numerous areas necessitate more examination. Future research may examine quite a lot of Arabic versions of *Slaughterhouse-Five* to assess inconsistencies in translation methodologies. Furthermore, intensifying the investigation to other languages would lead to further inclusive data of the all-inclusive translation of trauma tales. Eventually, applying MST across several genres and texts would appraise the generalizability of the findings.

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