



OPEN ACCESS

EDITED BY

Hassan Banaruee,
University of Education Weingarten, Germany

REVIEWED BY

Alice Guerrieri,
University of Cagliari, Italy
Stefana Garelli,
Roma Tre University, Italy

*CORRESPONDENCE

Kemal Demir
✉ kdemir@akdeniz.edu.tr

RECEIVED 29 September 2025

REVISED 31 December 2025

ACCEPTED 31 December 2025

PUBLISHED 21 January 2026

CITATION

Demir K and Özenici S (2026) Embodied metaphors in Friedrich Schiller's "Die Bürgschaft": a cognitive-linguistic analysis. *Front. Lang. Sci.* 4:1712313. doi: 10.3389/flang.2025.1712313

COPYRIGHT

© 2026 Demir and Özenici. This is an open-access article distributed under the terms of the [Creative Commons Attribution License \(CC BY\)](#). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Embodied metaphors in Friedrich Schiller's "Die Bürgschaft": a cognitive-linguistic analysis

Kemal Demir* and Salih Özenici

Akdeniz Üniversitesi, Antalya, Türkiye

This article examines Friedrich Schiller's ballad *Die Bürgschaft* within the framework of Conceptual Metaphor Theory (CMT), focusing on the bodily grounding of metaphorical structures (embodiment). Based on a systematic stanza-by-stanza analysis of the ballad's 20 stanzas, it argues that recurrent embodied mappings play a central role in structuring abstract domains such as time, emotions, moral values, and decisive life events. Methodologically, the study identifies metaphorical expressions in each stanza, assigns source and target domains, and links these mappings to recurring image-schematic patterns. This procedure allows the analysis to move beyond isolated figures of speech and to reconstruct metaphorical language as a textually organized system that guides interpretation across the narrative progression. The results reveal four dominant, interacting patterns: TIME IS MOVEMENT (PATH-based urgency), EMOTIONS AS BODILY STATES, DIFFICULTY IS AN OBSTACLE (force-resistance dynamics), and MORAL APPROACHING (proximity/contact cues). Importantly, these mappings are treated as textually licensed and narratively functional configurations in a specific literary and cultural context, not as strong claims about universal embodiment. By situating the findings against recent cross-cultural and multimodal perspectives on embodied meaning, the paper positions literary analysis as a complementary, hypothesis-generating domain that can refine and contextualize empirically oriented research on embodiment, rather than replacing it.

KEYWORDS

CMT, cognitive poetics, die bürgschaft, embodiment, image schema, schiller

1 Introduction

Friedrich Schiller's ballad *Die Bürgschaft* narrates a test of loyalty under extreme pressure. Damon is sentenced to death by the tyrant Dionysius. He asks for a brief reprieve to arrange his sister's marriage, and his friend offers himself as a hostage. On his return, Damon faces a chain of obstacles and life-threatening forces of nature, yet he arrives in time, and the tyrant is ultimately shaken by the friends' steadfastness. The ballad thus stages friendship, loyalty, and moral integrity as concrete experiences that unfold through movement, effort, danger, and bodily limit situations.

Conceptual metaphors are deeply rooted in bodily and sensory experience. They structure abstract domains through more concrete, mostly physical concepts. According to [Lakoff and Johnson \(1980\)](#), "our everyday metaphorical language is based on fundamental experiences with the body." In CMT, these systematic correspondences are described as mappings from a source domain, typically concrete and experientially grounded, to a target domain, typically abstract and less directly accessible. CMT further distinguishes different metaphor types. Structural metaphors use one complex concept to structure another, as

when time pressure is conceptualized via motion in “Es eilen die Stunden.” Orientational metaphors organize concepts via spatial orientation, for example up–down or in–out, which is activated when the act of supplication is framed through upward direction in “Die Hände zum Zeus erhoben.” Ontological metaphors treat processes, events, and emotions as entities or forces, as in “Da treibt ihn die Angst,” where fear is construed as a driving agent. This study uses these distinctions to describe how *Die Bürgschaft* turns abstract notions such as time, emotion, moral value, and decisive life events into experientially graspable patterns.

In this paper, source domain refers to the more concrete experiential field that pro-vides inferential structure, while target domain refers to the more abstract concept that is being understood through that structure. Source–target mappings are not treated as isolated rhetorical effects but as recurrent correspondences that can be traced across stanzas. The analysis therefore identifies which lexical and narrative cues license a given mapping in context, and it records the mapping at the level of recurring patterns rather than single lines. This operationalisation allows the study to distinguish text-grounded mappings from purely interpretive paraphrases.

Recent research on embodied metaphor has increasingly complemented foundational CMT claims with empirical evidence on (i) cross-cultural variation in metaphorical mappings and (ii) multimodal realizations of embodiment, particularly in co-speech gesture. Large-scale cross-cultural analyses of temporal metaphor demonstrate that TIME is not uniformly embodied across languages; rather, metaphor categories such as TIME IS MOTION and TIME IS SPACE exhibit systematic cross-linguistic patterning and language-family effects. These findings motivate more carefully delimited claims about universality and highlight the need to distinguish widely attested schematic tendencies from culture-specific realizations (Khatin-Zadeh et al., 2023a, p. 219–221).

In parallel, multimodal approaches argue that abstract temporal construals can become visible in gesture: temporal gestures enact spatialization patterns of past–present–future relations and display both recurrent regularities and culturally variable distributions across communities (Cienki and Müller, 2014, p. 1781–1782). Experimental gesture-based studies further support the view that schematic components of metaphorical meaning can be activated through bodily action. Specifically, congruent gestural primes have been shown to facilitate metaphor comprehension, whereas opposite or incongruent gestural primes inhibit processing, suggesting that image-schematic structure is not merely inferred from linguistic input but can be behaviorally accessed via embodied cues (Khatin-Zadeh, 2023, p. 72–74). The gesture-as-simulated-action framework provides a mechanistic account of this link by modeling gestures as overt realizations of underlying perceptual and motor simulations, thereby specifying how embodiment may become observable in communicative behavior (Hostetter and Alibali, 2008, p. 495–496).

Taken together, this body of work provides an empirical and conceptual backdrop for the present analysis without shifting its methodological scope. Rather than testing embodiment experimentally, the study treats the literary text as a site where embodied meanings are *textually cued and narratively organized*. Cross-cultural and multimodal findings are therefore not invoked to generalize the poem’s metaphors beyond their context, but

to calibrate the analytical claims: they motivate a cautious interpretation of embodiment as a *licensed inference* grounded in linguistic, narrative, and cultural cues, rather than as a direct proxy for uniform sensorimotor activation in readers.

Literature, as a cognitive artifact, makes it possible to observe these structuring processes in a concentrated and aesthetically organized form. Literary understanding can be conceived as a cognitive construction: “Language evokes conceptual structures that are mentally simulated by the reader and translated into narrative meaning” (Langacker, 2009, p. 24). Linguistic images trigger mental constructions grounded in bodily experience. When Schiller describes forces of nature or bodily limit experiences, the text activates sensorimotor simulations that guide interpretation through embodied imagination. As Mischler (2013) shows, metaphors not only express synchronic cognitive processes but also reflect long-term cultural developments. Bodily experience therefore functions as a source of present-day metaphorical concepts and as a medium through which cultural knowledge becomes sedimented across generations.

This perspective extends Hollington (2015) emphasis on anthropological contexts for understanding metaphors. Metaphors are embedded in everyday bodily practices that are culturally shaped and socially transmitted. Literary texts draw on collectively shared embodied patterns to construct complex meaning spaces. Sharifian (2017, p. 92) likewise underscores that “cultural conceptualizations are based on collective embodiment, which becomes sedimented in linguistic routines.” Language thus functions as a cultural archive of bodily shaped experiences. These embodied concepts persist in linguistic structures and stabilize cultural worldviews that crystallize in literature. Cognitive linguistics therefore provides a framework for understanding literary metaphors not merely as stylistic de-vices but as cultural–cognitive configurations. A complementary perspective comes from Kritische Kognitive Linguistik (KKL) in the German cognitive-linguistic tradition. KKL links cognitive modeling to questions of evaluation, positioning, and power in meaning construction. This angle is relevant for *Die Bürgschaft* because the poem stages authority, coercion, and moral legitimacy through concrete bodily scenes and action frames. In this study, KKL serves as an interpretive lens for describing how embodied mappings also carry evaluative and socio-moral orientation in the tyrant–friends constellation (Schwarz-Friesel, 2017).

To make this link explicit, the analysis draws on a set of recurring image schemas, especially PATH, CONTAINER, FORCE, BALANCE, and UP–DOWN orientation. These schemas capture how the poem repeatedly organizes experience through movement toward a goal, boundary and enclosure relations, resistance and compulsion, equilibrium and disruption, and vertical evaluation. The embodiment criterion is straightforward: the analysis treats a mapping as embodied when the textual cues invite bodily experience, sensorimotor grounding, or spatial organization, for example via lexemes of motion, constraint, effort, weight, direction, and containment.

Ziemke et al. (2007) add that narrative structures in literary texts often derive from sensorimotor experience schemas such as balance, movement, or force relations. Literary concepts such as departure, obstacle, or effort, central elements of *Die Bürgschaft*, can be analyzed as textual realizations of these schemas. Evans and

Green (2006) stress that metaphorical concepts are not ornaments but mechanisms for structuring experience. The analysis of poetic language therefore enables the reconstruction of those mental structures through which abstract concepts such as friendship, loyalty, or time become comprehensible. Literature emerges, on this basis, as a privileged domain for examining the embodiment of linguistic meaning.

Research questions guiding this study are:

- (1) Which embodied image schemas and source–target mappings recur across the ballad’s stanzas?
- (2) How do these mappings structure abstract domains such as time, emotions, moral values, and life events in the poem?
- (3) How does the narrative progression of the ballad recontextualize these embodied structures during reading and interpretation?

2 Results

The analysis shows that *Die Bürgschaft* systematically externalizes abstract meanings through recurrent embodied mappings. Across the stanzas, four patterns dominate and co-occur with the ballad’s narrative progression. The verse-by-verse coding (Table 1) documents these patterns through source–target assignments and image-schema labels. These mappings are analyzed as textually licensed and narratively functional patterns; they are not treated as claims about universal embodiment but as recurrent configurations within this specific poetic and cultural context.

2.1 Spatial metaphors: TIME IS MOVEMENT

Time and urgency are repeatedly structured through motion along a path. The narrative’s temporal pressure is realized via verbs of hastening, delay, and progress, so that “having time” and “losing time” become readable as moving faster or being held back. This pattern clusters strongly in the journey segment, where the hero’s spatial advancement functions as the primary cue for temporal advancement. As a result, temporal sequence is not presented as an abstract timeline but as embodied progression toward a goal under constraint. While path-based temporal metaphors are widely attested in the literature, the present analysis focuses on how this schema is narratively orchestrated in *Die Bürgschaft* to structure urgency and suspense, without implying that this realization exhausts the possible embodiments of time across contexts. This pattern is documented in Table 1 (clustered), section A, where path-based motion and temporal boundary cues are coded as the dominant embodiment structure for time pressure and narrative progression.

2.2 Body schemas: EMOTIONS AS BODILY STATES

Emotions are predominantly encoded through observable bodily reactions and physiological states. Fear, hope, determination,

relief, and loyalty become accessible through cues such as trembling, sweating, tears, and bodily tension, as well as interpersonal gestures (for example embracing). The pattern appears throughout the ballad but becomes especially salient at moments of crisis and resolution, where bodily display provides the main evidence for inner states. The mapping does not remain at the level of isolated expressions. It forms a coherent emotional texture that guides readers toward empathic alignment with the protagonists. Rather than positing a direct equivalence between emotion and bodily response, the analysis treats these cues as culturally and literarily conventionalized signals that invite embodied inference during reading. Table 1 (clustered), section B captures the emotion-as-body-state pattern through recurrent bodily symptoms and affect displays, which function as primary access points to inner states at crisis and resolution moments.

2.3 Force and resistance schemas: DIFFICULTY IS AN OBSTACLE

The poem repeatedly frames challenges through force dynamics and resistance. Natural forces and environmental constraints are encoded as physical opponents, blockages, and destabilizing pressures. The hero’s struggle against water, rocks, heat, and exhaustion is consistently modeled as a force–counterforce interaction. In the coding, these passages align with FORCE, OBSTACLE, and BALANCE-related schemas, indicating that the narrative’s conflict structure relies on embodied patterns of impeded motion, exertion, and recovery of stability. These schemas are analyzed as narrative devices that organize experiential plausibility and dramatic tension, not as direct evidence of uniform sensorimotor activation across readers. The force–resistance structure is summarized in Table 1 (clustered), Section C, where constraint, blockage, exertion, and balance loss are coded as recurring schema realizations across the obstacle sequence.

2.4 Proximity/distance metaphors: MORAL APPROACHING

Moral change and ethical connectedness are staged through bodily proximity and contact. The ballad’s climactic interpersonal alignment is expressed through reduced distance, touch, and embrace, which function as concrete cues for reconciliation, recognition, and ethical transformation. This pattern is concentrated in the final segment, where the narrative resolves moral tension through a visible shift in interpersonal relation rather than through abstract reflection. The analysis does not assume that proximity universally encodes moral alignment; instead, it shows how bodily closeness operates within the poem as a culturally legible marker of ethical reconciliation and legitimacy. As shown in Table 1 (clustered), Section D, moral connectedness and transformation are consistently externalized via proximity and contact cues, with admission and embrace functioning as key embodied markers of ethical alignment.

TABLE 1 Verse-by-verse analysis of embodiment in schiller's *die bürgschaft*.

Verse	Source domain	Target domain	Embodiment reference
A) Spatial metaphors: TIME IS MOVEMENT/TIME AS PATH (PATH, TEMPORAL PRESSURE, BOUNDARY-TIME)			
4	Movement toward escape	Striving for freedom	PATH/MOTION
7	Request for postponement	Obligation toward friend	PATH, temporal pressure as bodily strain
9	Deadline	Time as moral touchstone	BOUNDARY/TIME
20	Time-of-day cue, threat	Time scarcity	PATH/BOUNDARY, time as limitation
28	Goal attainment	Fulfillment of duty	PATH, goal completion as embodied closure
B) Body schemas: EMOTIONS AS BODILY STATES (bodily symptoms, affect display)			
14	Fear of death	Fear for another	Trembling, pallor, bodily symptoms
29	Embrace, weeping	Emotional connection	Tears and embrace as visible affect
30	Public scene	Deep emotion	Emotions as bodily display
C) Force and resistance schemas: DIFFICULTY IS AN OBSTACLE (FORCE, CONSTRAINT, OBSTACLE, BALANCE)			
2	Capture	Threat of violence	FORCE/CONSTRAINT, body under control
12	Rain, exposure	Nature as trial	FORCE/ENVIRONMENT, resistance
13	Blocked paths	Insurmountable obstacle	PATH/OBSTACLE, boundary
15	Jump into flood	Overcoming	FORCE/EXERTION, bodily tension
16	Ambush	Danger	FORCE/THREAT
18	Collapse	Giving up	BALANCE/LOSS, loss of agency
24	Warning	Self-protection	FORCE/AVOIDANCE, self-preservation impulse
D) Proximity/distance metaphors: MORAL APPROACHING (PROXIMITY, CONTACT, IN–OUT belonging)			
10	Encounter, communication	Loyalty	PROXIMITY as trust evidence
11	Embrace	Bond, agreement	CONTACT as consent
23	Admission into the bond	Social bond	PROXIMITY as connectedness
32	Admission into the bond	Social change	IN–OUT, belonging embodied
E) Boundary, sacrifice, power: embodied moral-political grounding (LIFE–DEATH boundary, CONTROL, INNER SPACE)			
1	Concrete act: assassination	Political resistance	AGENCY through bodily action
3	Display of power	Control over intention	Posture and speech as power enactment
5	Crucifixion	Punishment by death	Body as punishment site
6	Willingness to die	Self-sacrifice	LIFE–DEATH boundary
8	Pledge of surety	Trust	Bodily substitution as guarantee
17	Bodily exposure	Honesty, moral purity	OPEN–CLOSED, exposure
19	Spring, source	Hope, rescue	SOURCE/renewal cue
21	Sunset glow	Triumph, overcoming	LIGHT as insight cue
22	Self-sacrifice	Friendship as virtue	LIFE–DEATH boundary, ethical proof
25	Stillness under scorn	Unshakability	BALANCE/STABILITY, bodily stillness
26	Death	Eternal connection	CLOSURE boundary
27	Sacrifice	Love, loyalty	Bodily limit as highest ethics
31	Heart focus	Transformation	INNER SPACE, heart as moral insight locus

2.5 Pattern interaction across the narrative

These four mappings do not operate independently. The text links time pressure (movement along a path) with force dynamics (obstacles and resistance) and then anchors emotional and moral

meaning in bodily states and proximity. This interaction creates a consistent embodied logic: the narrative “moves” through time by moving through space, confronts difficulty as physical resistance, and resolves moral meaning through bodily relation and affective display. Importantly, this integrated system is analyzed as a

text-specific configuration that aligns with, but does not generalize beyond, broader findings on embodied metaphor and narrative comprehension. Taken together, **Table 1** (clustered) sections A–D show how path-based temporal pressure, force–resistance dynamics, bodily emotion cues, and proximity markers operate as an integrated embodied system that tracks the ballad’s narrative progression from constraint and risk to interpersonal alignment and moral resolution.

3 Discussion

The results support a cognitive-poetic reading of *Die Bürgschaft* in which meaning emerges from systematically organized metaphorical mappings grounded in bodily experience. The four dominant patterns identified in the Results section do not function as decorative tropes but constitute the poem’s conceptual infrastructure. Time pressure is construed through path-based motion, difficulty through force dynamics and resistance, emotions through bodily states, and moral change through proximity and contact. Taken together, these mappings form a coherent embodied logic through which abstract domains are rendered experientially accessible. This configuration is compatible with simulation-based accounts of language comprehension, according to which readers construct situation models integrating perceptual, motor, and affective information rather than processing meaning as amodal propositional content alone. More recent work refines this link between literary metaphor and mental simulation by distinguishing two complementary processing routes: a *propositional* mode, which restructures abstract semantic content through inferential abstraction, and an *imagistic* mode, which integrates vivid sensory mental images from the source and target domains (Khatin-Zadeh and Banaruee, 2025, p. 1–2). This distinction helps specify how “simulation” in literary metaphor may involve both abstraction-driven conceptual updating and image-rich imaginative construal, depending on cue salience and interpretive goals.

From the perspective of contemporary embodiment research, these findings align with evidence that metaphorical meaning can recruit sensorimotor resources under specific conditions. Experimental and behavioral studies indicate that embodied simulation is not an all-or-nothing effect but varies with task demands, stimulus properties, and contextual salience. In this respect, the ballad’s emphasis on movement, resistance, and bodily display is analytically relevant because it supplies precisely those cues that simulation-based models identify as facilitators of embodied processing. Gesture-based research provides converging, task-specific evidence for this claim: when image-schematic structures underlying metaphors are activated through congruent bodily action, metaphor comprehension is facilitated under controlled priming conditions, whereas incongruent bodily cues can inhibit interpretation (Khatin-Zadeh, 2023, p. 72–74). Importantly, review-based syntheses of this literature emphasize that such effects are modulated by task design, stimulus type, and contextual salience, and should therefore be understood as evidence for *conditional* rather than uniform embodied involvement in metaphor processing (Khatin-Zadeh et al., 2023b, p. 585).

Within this calibrated framework, the present study treats embodied cues in *Die Bürgschaft* as textually licensed prompts for simulation, not as direct indicators of invariant sensorimotor activation.

At the same time, recent multimodal research cautions against treating embodied mappings as uniformly instantiated or universally equivalent across languages and cultures. Large-scale cross-cultural analyses of temporal metaphor demonstrate that while patterns such as TIME IS MOTION are widespread, their specific realizations, preferences, and evaluative extensions vary systematically across linguistic and cultural contexts (Khatin-Zadeh et al., 2023a, p. 219–221). This observation aligns with recent cross-cultural work arguing that metaphorical meaning operates on at least two analytically distinct layers: a partially shared, bodily grounded layer that supports cross-linguistic convergence, and a culture-specific layer in which metaphorical preferences, extensions, and evaluative associations are shaped by local communicative practices and cultural models (Banaruee et al., 2024, p. 134–136). Complementary gesture studies show that abstract temporal relations are routinely externalized through spatialized gestures, yet the distribution and conventionalization of such gestures exhibit both shared tendencies and culture-specific profiles (Cienki and Müller, 2014, p. 1781–1783). Against this background, the present analysis does not advance claims about the universality of the identified mappings. Rather, it shows how widely attested embodied schemas are narratively orchestrated within a specific literary text and cultural tradition.

This calibrated stance is particularly important for interpreting embodiment claims in a literary context. The analysis remains text-analytic and does not include independent empirical measures of reader simulation or affect. Accordingly, the findings should be understood as evidence about the poem’s systematically organized cues for embodiment, not as direct evidence of neural activation or bodily response in readers. This distinction is consistent with contemporary critiques of strong embodiment positions, which argue that abstract concepts are unlikely to be exhaustively grounded in sensorimotor systems alone and instead involve systematic interactions between embodied and modality-independent processes (Khatin-Zadeh et al., 2023b, p. 585).

The present study therefore aligns with interactionist accounts of embodiment, according to which bodily experience constrains and scaffolds meaning construction without fully determining it.

These limitations also delineate concrete directions for future research. One step is to enhance methodological transparency by reporting coder agreement or providing a coding manual as supplementary material. Another is to link the identified mapping patterns to reader-oriented evidence. Eye-tracking and behavioral paradigms offer established methods for testing whether path-based motion cues, force dynamics, or proximity markers modulate reading times, imagery strength, or affective engagement. In addition, gesture-based designs could examine whether readers spontaneously recruit spatial or motor imagery when processing key passages, thereby empirically probing the poem’s embodiment potential suggested by the present analysis.

A further contribution of the discussion emerges when the findings are viewed through a critical cognitive-linguistic lens. Embodied mappings do not only structure cognition; they also structure stance and evaluation. In *Die Bürgschaft*, bodily cues

that enable simulation simultaneously frame legitimacy, authority, and moral judgment, particularly in scenes of coercion, threat, and public evaluation. This observation supports the claim that embodiment is not ideologically neutral but participates in the construction of socio-moral orientation. Integrating *Kritische Kognitive Linguistik* sharpens this point by showing how embodied construals are implicated in the negotiation of power and moral legitimacy without altering the analytic core of the metaphor mapping approach (Kertész et al., 2012, p. 651–654).

Within these bounds, the discussion clarifies the specific contribution of this paper. It offers a systematic mapping of embodied metaphor patterns across *Die Bürgschaft* and demonstrates how these patterns align with the ballad's narrative segmentation: urgency is staged as movement under constraint, challenge as force opposition, affect as bodily state, and moral transformation as embodied relation. By situating these findings in relation to contemporary cross-cultural and multimodal embodiment research, the study positions literary analysis as a complementary domain that can refine, contextualize, and generate hypotheses for empirically oriented embodiment research, rather than as a substitute for it.

4 Materials and methods

4.1. Conceptual Metaphor Method

The analysis follows Conceptual Metaphor Theory (CMT) and applies the source–target domain distinction. The ballad's 20 stanzas constitute the analytical corpus. For analytical control, the stanzas are grouped into three thematic segments that reflect the narrative progression (departure and pledge, confrontation with obstacles, return and resolution). The procedure is qualitative and text-based, but it follows explicit coding steps to ensure analytical transparency.

Step 1. Identification of metaphorical expressions. Metaphor candidates are identified through close reading of each stanza. An expression is treated as metaphorical when its contextual meaning in the verse differs from a more basic, concrete meaning, and the contextual meaning is intelligible via cross-domain mapping. The unit of analysis is a metaphorically used lexical item or short phrase within a verse.

Step 2. Source–target domain coding. For each metaphorical unit, the target domain is defined as the abstract concept being construed (for example time, emotion, moral value, life event). The source domain is defined as the more concrete experiential field that supplies the inferential structure (for example motion, containment, force, balance, proximity). Domain assignments are made based on local co-text and narrative function in the stanza, not on isolated words.

Step 3. Image schema and embodiment coding. Each coded mapping is additionally tagged with an image schema label (for example PATH/MOTION, CONTAINER, FORCE, BALANCE, UP–DOWN, PROXIMITY–DISTANCE). These labels provide a compact description of the embodied structure evoked by the verse (Ziemke et al., 2007; Evans and Green, 2006). Embodiment is operationalized as the presence of textual cues that recruit bodily

experience, sensorimotor grounding, or spatial organization, such as lexemes of movement and direction, physical constraint and effort, weight and equilibrium, boundary and enclosure, touch and distance, and bodily reactions (Langacker, 2009).

Step 4. Consistency checks and documentation. Coding is documented in a coding sheet that records stanza/verse reference, metaphorical unit, source domain, target domain, image schema label, and a brief justification. The coding is performed in two passes. The second pass serves as an internal consistency check and is supported by a decision log that records borderline cases and coding rules adopted during analysis.

4.2 Analysis of embodiment

In methodological terms, embodiment is operationalized here as a cue-based analytic criterion grounded in textual and narrative evidence; the resulting claims are deliberately calibrated in light of recent cross-cultural and multimodal research on embodied meaning, without presupposing uniform sensorimotor activation across readers.

This study treats embodiment as an analytical criterion rather than a general theoretical claim. Embodied experience is taken as grounding when the poem invites a bodily simulation in the reader through explicit physical actions, sensory descriptions, or spatial relations (Pütz et al., 2001; Gibbs, 2006). In *Die Bürgschaft*, bodily cues such as hurrying, struggling, sweating, trembling, tears, and embraces function as triggers that connect abstract states to sensorimotor experience. The following subsections specify the main embodiment-related coding dimensions used throughout the stanza-by-stanza analysis.

4.2.1 Time and movement

Coding focus: TIME AS MOVEMENT/TIME AS PATH. Target domain: time, urgency, waiting, temporal sequence. Source domain: motion along a path, approaching a goal, delay, acceleration. Embodiment cues: verbs and constructions of motion, directionality, pace, stages of a journey, spatial progress used to construe temporal progress. Instances are coded under PATH/MOTION when the verse construes temporal passage through locomotion or spatial traversal (Lakoff and Johnson, 1980; Evans and Green, 2006).

4.2.2 Forces of nature and bodily limit experiences

Coding focus: DIFFICULTY IS AN OBSTACLE/EXTERNAL FORCE AS RESISTANCE. Target domain: difficulty, danger, existential threat, moral trial. Source domain: physical obstacles, resistance, force interaction, loss of balance, constraint. Embodiment cues: descriptions of water, rocks, heat, storm, exertion, constraint, instability, or collision-like events. Instances are coded under FORCE and OBSTACLE-related schemas when the verse construes challenges via force dynamics, resistance, and blocked motion (Johnson, 1987; Lakoff, 1993; Langacker, 2009).

4.2.3 Moral transformation

Coding focus: MORAL INSIGHT AS PROXIMITY/TRANSFORMATION AS A SHIFT IN BODILY RELATION. Target domain: moral change, recognition, ethical connectedness, reconciliation. Source domain: bodily proximity, touch, embrace, approach, shared affect. Embodiment cues: physical closeness, contact, tears, gestures of alignment, changes in interpersonal distance. Instances are coded under PROXIMITY–DISTANCE and related affective embodiment cues when the verse frames moral reorientation through bodily relation and interaction (Ziemke et al., 2007; Evans and Green, 2006).

4.3 Verse-by-verse analysis according to embodiment

Representation of Metaphor Types in *Die Bürgschaft* (according to CMT and Principles of Embodiment) (Table 1).

Table 1 provides a structured overview of the main metaphor types and image-schema patterns used as coding categories in the verse-by-verse analysis. It is a representative summary designed to link the descriptive labels (spatial metaphors, body schemas, force/resistance schemas, proximity/distance metaphors) to the underlying source–target mappings and embodiment cues. The stanza-by-stanza analysis applies these categories systematically to the poem's verses, and it uses verse references and short quotations in the Results section to demonstrate how each category is textually instantiated.

- Spatial Metaphors (TIME IS MOVEMENT) Type: concrete space/motion → abstract time/urgency. Coding cues: motion verbs, path progression, approaching a goal, delay/acceleration.
- Body Schemas (EMOTIONS AS BODILY STATES) Type: inner states → external bodily reactions. Coding cues: trembling, sweating, tears, bodily tension, gestures.
- Force and Resistance Schemas (DIFFICULTY IS AN OBSTACLE) Type: physical exertion/resistance → moral trial/conflict. Coding cues: force interaction, resistance, blockage, loss of balance, constraint by natural forces.
- Proximity/Distance Metaphors (MORAL APPROACHING) Type: physical proximity → emotional/moral proximity. Coding cues: approach, touch, embrace, reduced distance, shared affect.

5 Conclusions

Schiller's ballad *Die Bürgschaft* demonstrates how literary texts can stage embodied cognitive structures in ways that render complex cultural concepts experientially accessible. Time, emotion, and morality are not conveyed as detached abstractions; rather, the poem anchors them in bodily and sensory mediation. In this respect, the analysis supports the view that conceptual metaphors reflect recurrent cognitive routines shaped by physical experience and culturally sedimented patterns of action and perception (Contini-Morava et al., 2004, p. 117). Literary meaning emerges within a sensorimotorily grounded space of interpretation in

which movement, force, bodily states, and interpersonal proximity function as organizing principles for sense-making (Ziemke et al., 2007, p. 23). As Evans and Green (2006, p. 389) argue, the bodily grounding of metaphorical thinking provides a crucial link between linguistic structure and cultural meaning, while narrative scenarios open multiple conceptual perspectives through embodied framing (Langacker, 2009, p. 112). From this angle, the poem's metaphorical organization can be understood as an instance of collectively shared, bodily shaped meaning-making practices (Gibbs, 2006, p. 153).

At the same time, recent cross-linguistic and cross-cultural research underscores that embodied metaphorical patterns are neither uniform nor universally instantiated. Studies of emotion metaphors across languages show that bodily loci and physiological imagery are recurrent but culturally variable resources for conceptualizing affect (Ponsonnet, 2014, p. 96). Similar considerations apply to other levels of linguistic organization: as Nessel (2008, p. 5) notes, even phonological and metric structures rely on general perceptual and motor capacities, which can be differentially conventionalized across languages and traditions. From this perspective, the idiomatic and rhythmic density of poetic language may be read as an expression of collective embodied structures that are historically and culturally stabilized rather than biologically fixed (Langlotz, 2006, p. 171).

Against this background, the present study does not claim that the embodied mappings identified in *Die Bürgschaft* are universal in a strong sense. Instead, it shows how widely attested image schemas—such as PATH, FORCE, BALANCE, and PROXIMITY—are narratively orchestrated within a specific literary text to structure urgency, struggle, affect, and moral transformation. The contribution of this analysis lies in its systematic reconstruction of these text-internal patterns and in its demonstration of how embodied cues guide readers toward particular interpretations without presupposing uniform sensorimotor activation. In this respect, literary analysis is positioned here not as a substitute for experimental research on embodiment, but as a complementary, hypothesis-generating domain that can refine and contextualize broader cognitive-linguistic claims.

The conclusions of this study are necessarily bounded by its design. The analysis is qualitative and text-analytic, inferring embodied structures from linguistic and narrative cues rather than from independent measures of reader response. Future research can strengthen the empirical bridge by combining stanza-level mapping with corpus-linguistic sampling, cross-cultural comparison of image-schema preferences, and reader-oriented methods. Such approaches would allow researchers to test more directly the balance between widely shared schemas and culture-specific realizations in literary metaphor, as well as to further refine the descriptive categories employed here (cf. Glynn and Fischer, 2010, p. 56).

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

KD: Conceptualization, Formal analysis, Methodology, Supervision, Visualization, Writing – original draft. SÖ: Data curation, Formal analysis, Methodology, Writing – original draft.

Funding

The author(s) declared that financial support was not received for this work and/or its publication.

Conflict of interest

The author(s) declared that this work was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

- Banaruee, H., Farsani, D., Khatin-Zadeh, O., and Eskandari, Z. (2024). Metaphors across cultures. *Poznań Stud. Contemp. Ling.* 60, 133–158. doi: 10.1515/psic-2023-0035
- Cienki, A., and Müller, C. (2014). “Metaphoric gestures and some of their relations to verbal metaphoric expressions,” in *Body – Language – Communication*, eds. C. Müller (Berlin/Boston: De Gruyter Mouton), 2, 1781–1802.
- Contini-Morava, E., Kirsner, R. S., and Rodríguez-Bachiller, B. (Eds.). (2004). *Cognitive and Communicative Approaches to Linguistic Analysis*. (Amsterdam/Philadelphia: John Benjamins) doi: 10.1075/sfsl.51
- Evans, V., and Green, M. (2006). *Cognitive Linguistics: An Introduction*. Edinburgh: Edinburgh University Press.
- Gibbs, R. W. (2006). *Embodiment and Cognitive Science*. Cambridge: Cambridge University Press.
- Glynn, D., and Fischer, K. (Eds.). (2010). *Quantitative Methods in Cognitive Semantics: Corpus-Driven Approaches*. Berlin/New York: De Gruyter Mouton. doi: 10.1515/9783110226423
- Hollington, A. (2015). *Traveling Conceptualizations: A Cognitive and Anthropological Linguistic Study of Jamaican*. Amsterdam/Philadelphia: John Benjamins. doi: 10.1075/clu.14
- Hostetter, A. B., and Alibali, M. W. (2008). Visible embodiment: gestures as simulated action. *Psychon. Bull. Rev.* 15, 495–514. doi: 10.3758/PBR.15.3.495
- Johnson, M. (1987). *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: University of Chicago Press. doi: 10.7208/chicago/9780226177847.001.0001
- Kertész, A., Schwarz-Friesel, M., and Consten, M. (2012). Introduction: converging data sources in cognitive linguistics. *Lang. Sci.* 34, 651–655. doi: 10.1016/j.langsci.2012.04.006
- Khatin-Zadeh, O. (2023). Embodied metaphor processing: a study of the priming impact of congruent and opposite gestural representations of metaphor schema on metaphor comprehension. *Metaphor Symb.* 38, 70–80. doi: 10.1080/10926488.2022.2122830
- Khatin-Zadeh, O., and Banaruee, H. (2025). Propositional vs. imagistic modes in metaphoric creativity. *Integr. Psychol. Behav. Sci.* 59:83. doi: 10.1007/s12124-025-09960-1
- Khatin-Zadeh, O., Banaruee, H., Reali, F., Tirado, C., Ruiz-Fernández, S., Yamada, Y., et al. (2023a). Metaphors of time across cultures. *J. Cult. Cogn. Sci.* 7, 219–231. doi: 10.1007/s41809-023-00125-3
- Khatin-Zadeh, O., Farsani, D., Hu, J., Eskandari, Z., Zhu, Y., and Banaruee, H. (2023b). A review of studies supporting metaphorical embodiment. *Behav. Sci.* 13:585. doi: 10.3390/bs13070585
- Lakoff, G. (1993). “The contemporary theory of metaphor,” in *Metaphor and Thought*, 2nd ed, ed. A. Ortony (Cambridge: Cambridge University Press), 202–251. doi: 10.1017/CBO9781139173865.013
- Lakoff, G., and Johnson, M. (1980). *Metaphors We Live By*. Chicago: University of Chicago Press.
- Langacker, R. W. (2009). *Investigations in Cognitive Grammar*. Berlin/New York: Mouton de Gruyter. doi: 10.1515/9783110214369
- Langlotz, A. (2006). *Idiomatic Creativity: A Cognitive-Linguistic Model of Idiom Representation and Idiom Variation in English*. Amsterdam/Philadelphia: John Benjamins. doi: 10.1075/hcp.17
- Mischler, J. J. (2013). *Metaphor across Time and Conceptual Space*. Amsterdam/Philadelphia: John Benjamins. doi: 10.1075/clsc.3
- Neset, T. (2008). *Abstract Phonology in a Concrete Model: Cognitive Linguistics and the Morphology-Phonology Interface*. Berlin/New York: Walter de Gruyter. doi: 10.1515/9783110208368
- Ponsonnet, M. (2014). *The Language of Emotions: The Case of Dalabon (Australia)*. Amsterdam/Philadelphia: John Benjamins. doi: 10.1075/clsc.4
- Pütz, M., Niemeier, S., and Dirven, R. (Eds.). (2001). *Applied Cognitive Linguistics I: Theory and Language Acquisition*. Berlin/New York: Mouton de Gruyter. doi: 10.1515/9783110866247
- Schwarz-Friesel, M. (2017). Konzeptualisierung und referenzialisierung von katastrophe in den textweltmodellen des modernen krisendiskurses. *Cahiers d'Études Germaniques* 73, 41–64. doi: 10.4000/ceg.2309
- Sharifian, F. (2017). *Cultural Linguistics: Cultural Conceptualisations and Language*. Amsterdam/Philadelphia: John Benjamins. doi: 10.1075/clsc.8
- Ziemke, T., Zlatev, J., and Frank, R. M. (Eds.). (2007). *Body, Language and Mind. Vol. 1: Embodiment*. Berlin/New York: Mouton de Gruyter. doi: 10.1515/9783110207507

Generative AI statement

The author(s) declared that generative AI was not used in the creation of this manuscript.

Any alternative text (alt text) provided alongside figures in this article has been generated by Frontiers with the support of artificial intelligence and reasonable efforts have been made to ensure accuracy, including review by the authors wherever possible. If you identify any issues, please contact us.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.