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## Encoding Culture, Embodying Identity: A Study of Somatic Proverbs

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### ABSTRACT

This article presents a cross-cultural investigation into somatic paroemias (proverbs and idioms structured by bodily imagery) positioning them as fundamental linguistic expressions that encapsulate a culture's embodied memory and actively shape conceptions of national identity. By integrating an analytical methodology that couples corpus linguistics with conceptual metaphor theory, the study delineates the implicit, body-based cognitive schemas structuring proverbial language across Russian, English, and Japanese. The methodology synthesizes quantitative pattern identification from corpus data with qualitative conceptual analysis, further enriched by insights from gesture ethnography and phenomenological theory to establish the lived, experiential grounding of these linguistic forms. Through this triangulated approach, the research identifies three distinct cultural templates: the Russian logic of vertical ascent and descent frequently linked to the SOUL; the Anglo-American model of internal containment, centred on the HEART and GUT; and the Japanese principle of abdominal centrality HARA and fluid integration. The findings demonstrate how these proverbial patterns function not merely as figurative speech but as cognitive repositories of sedimented, "frozen" lived experience, preserving historical bodily dispositions in transmissible form. Consequently, the study argues that this proverbial layer constitutes a crucial mechanism for the tacit, communal transmission of corporeal identity, serving as a vital bridge between universal human physicality and culturally specific meaning systems. Engaging analytically with this embodied dimension of language thus

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offers a profound pathway for deepening our understanding of how collective identity is intuitively formed, mnemonically sustained, and phenomenologically differentiated across cultures.

**Keywords:** Proverbs; Cultural Memory; National Identity; Embodiment; Cross-Cultural Analysis; Intercultural Competence; Linguistics; Culturally Responsive Pedagogy

## 1. Introduction: The Embodied Bridge between Universal Experience and Cultural Identity

*“The body is by no means a closed and self-sufficient entity;*

*It is highly plastic and possesses rich intercorporeal possibilities”*<sup>[1]</sup>.

The contemporary landscape of cognitive science and phenomenological inquiry is characterized by a tension between “neurobiological universalism,” which seeks the invariant substrates, and “cultural particularism”<sup>[2]</sup>. This represents a fundamental limitation in the comprehension of how consciousness, meaning, and ultimately, collective identity emerge from the dynamic interplay of biological organism, cultural mediation, and lived corporeality<sup>[3]</sup>. The pedagogical gap is felt in cross-cultural and comparative education, where curricula and teacher training lack the tools to address the “embodied, pre-reflective dimensions of cultural difference”<sup>[1]</sup>. When educational systems are designed within one somatic schema, it can lead to miscommunication, assessment bias, and the marginalization of non-dominant ways of knowing and being. The research provides educators and policymakers with a framework to develop more culturally sustaining and cognitively inclusive educational environments<sup>[4]</sup>.

This theoretical impasse has significant applied consequences<sup>[5]</sup>, constraining progress in several key domains:

- In language education and cross-cultural training, methodologies fail to address the deep, embodied schemas through which speakers of a language intuitively feel and inhabit their worldview<sup>[6]</sup>;
- In curriculum development for intercultural competence and behavioral etiquette, overlooks the subconscious, corporeal dimensions of cultural difference, which are often the source of profound misunderstanding<sup>[4]</sup>.

This rift manifests in pedagogical tools that remain unable to decode the subconscious and corporeal logic of a culture. This study’s focus on somatic paroemias as pedagogical objects cultural scripts that are routinely transmitted in homes, communities, and informal learning settings offers a critical lens for decolonizing and diversifying pedagogical approaches<sup>[3]</sup>. Somatic paroemias function as intercorporeal texts—“durable, transmissible crystallizations of a culture’s shared bodily experience”<sup>[7]</sup>, indicating that languages encode distinct somatic patterns; for instance, East Asian linguistic traditions often employ visceral organ metaphors, whereas Western expressions may center more on the heart or facial gestures. A somatic proverb is a culturally sanctioned script for experiencing and interpreting corporeal states<sup>[8]</sup>, a mnemonic that activates and reinforces a specific somatic logic. While paremiology has a long history<sup>[9]</sup>, and the embodied nature of language is a growing focus, this research breaks ground by:

- Theoretical synthesis provides a linguistic and empirical base of key theoretical bridges between phenomenology (Merleau-Ponty’s “intercorporeality”), sociology (Bourdieu’s “habitus”), and cognitive linguistics (Lakoff and Johnson’s “conceptual metaphor”). The study grounds these abstract theories in analyzable textual data.
- Scope and comparison to conduct a focused comparative analysis of somatic paroemias across three linguistically and culturally distinct spheres: Russian, English, and Japanese<sup>[10]</sup>. This selection is strategic, representing diverse historical, philosophical, and somatic traditions (e.g., Western dualism vs. East Asian mind-body holism; Slavic conceptualizations of soul/body). This study builds upon foundational intra-linguistic analyses, such as the examination of splanchnonymic (visceral) intelligibility within Japanese and English paremiologies, to construct a novel, integrative typology of cross-cultural somatic logics.
- Methodological synthesis moves beyond textual anal-

ysis by methodologically triangulating<sup>[11]</sup>: Linguistic corpus analysis identifies and quantifies key somatic idioms. Gesture ethnography & phenomenological elicitation explores the kinesthetic and experiential dimensions that accompany the use of these expressions, grounding them in lived practice. Conceptual metaphor analysis decodes the underlying metaphorical mappings.

- Identification of culturally-patterned somatic logics reveals distinct, culturally coherent schemas<sup>[12]</sup>:
  - o In Russian, a prominent schema of verticality, collapse, and moral/spatial “openness” reflecting historical experiences of upheaval and a cultural valuation of sincere, unbounded emotion.
  - o In English, a dominant logic of visceral containment, internal pressure, and cardiac-centric emotion aligned with ideals of self-control and individual, internalized sentiment<sup>[13]</sup>.
  - o In Japanese, a central principle of abdominal fluidity and centrality (*hara*), where the belly is the seat of authentic spirit, thought, and social equilibrium.
- Theoretical contribution posits these paroemiatic systems as fundamental, yet understudied, infrastructure for the intercorporeal transmission of cultural memory and the grounding of national identity. They mediate between the universal, biological body and the historical community, showing how “Russian-ness,” “English-ness,” or “Japanese-ness” is, in part, a learned way of inhabiting a body and interpreting its signals. The analysis provides the framework for developing what can be termed ‘Physical Cultural Intelligence’ the competency to read, interpret, and engage with the embodied dimensions of cultural practice<sup>[14]</sup>. This moves pedagogical models toward the cultivation of a somatic sensibility crucial for deep cross-cultural understanding, suggesting that true integration requires developing sensitivity to its distinct, embodied logic of being-in-the-world.

## 2. Materials and Methods

This study employs an integrated, corpus-based methodological framework designed to compare the embodied schematics encoded within somatic paroemias across three distinct linguistic and cultural spheres: Russian, English, and Japanese. This research is anchored in the computational and comparative analysis of large-scale linguistic corpora<sup>[15]</sup>, supplemented by structured metaphor analysis. The methodology is explicitly constructed to navigate the epistemological tension between neurocognitive universalism and cultural particularism by treating language corpora as the empirical sediment of historical habitus<sup>[16]</sup>. The methodology provides a robust, replicable blueprint for uncovering the deep-seated, culturally variable bodily logics that are crystallized in language, offering a concrete empirical pathway to studying the intercorporeal foundations of cultural memory.

### 2.1. Methodological Framework: Corpus-Based Triangulation

We employed a corpus-based triangulation method (linguistic corpus analysis + gesture ethnography + phenomenological inquiry) to identify and compare the most prominent and culturally entrenched somatic schemas at a macro level, offering a reproducible framework for analyzing these “frozen cultural artifacts”<sup>[17]</sup>. It allows us to decipher their foundational metaphorical logics. We lay the groundwork for future research including our own planned studies to examine their variable, individual realizations in gesture and elicited narrative. As illustrated in **Table 1**, the framework conceptualizes somatic paroemias as dynamic models operating within a cultural-linguistic network, analyzed through three interdependent strands: statistical prominence (Strand 1), conceptual architecture (Strand 2), and their developmental lineage from surface frequency to deep structural logic (Strand 3).

**Table 1.** Integrated methodological framework for somatic paroemia analysis.

Analytical Strand	Primary Objective	Key Methods & Tools	Theoretical Anchor	Output
Strand 1. Corpus Linguistics & Quantitative Analysis	To identify, quantify, and compare the frequency, distribution, and collocational patterns of somatic lexemes within and across cultural-linguistic corpora.	<ul style="list-style-type: none"> <li>- Corpus compilation &amp; preprocessing</li> <li>- Key Word in Context (KWIC) analysis</li> <li>- Collocation network analysis</li> <li>- Statistical comparison of semantic domains</li> </ul>	Corpus Linguistics; Distributional Semantics	Significant lexical patterns.

Table 1. Cont.

Analytical Strand	Primary Objective	Key Methods & Tools	Theoretical Anchor	Output
Strand 2. Conceptual Metaphor Analysis (CMA)	To decode the image-schematic structures and cross-domain mappings (e.g., BODY IS A CONTAINER, MORALITY IS VERTICALITY) that structure the identified somatic expressions.	– Metaphor Identification Procedure (MIP) – Image-schema taxonomy analysis – Cross-cultural mapping comparison	Conceptual Metaphor Theory (Lakoff and Johnson, 1980)	Specific somatic logics.
Strand 3. Diachronic & Contrastive Archival Analysis	To trace the historical evolution and contextual usage of key somatic paroemias, grounding synchronic patterns in philological history and textual practice.	– Analysis of historical dictionaries and paremiological collections – Contrastive analysis of translation equivalents and their semantic shifts – Review of ethnographic and folklore records	Historical Linguistics; Philology; Contrastive Paremiology	Evidence of cultural persistence and change.

## 2.2. Data: Corpus Compilation and Source Materials

The TC-SPA (Tri-Cultural Somatic Paroemia Archive) is structured to ensure comparability across linguistic groups and includes diverse textual genres to capture proverbial usage in both conventional and innovative contexts<sup>[18]</sup>.

- Core literary and journalistic corpus for each language, a balanced sub-corpus of approximately 10 million words was assembled from the 19th to 21st centuries, sourced from:
  - Fiction and Drama (40%) captures culturally nuanced, context-rich usage of idiomatic language.
  - Newspapers and Periodicals (40%) document somatic paroemias in public discourse and argumentation.
  - Non-fiction Essays and Memoirs (20%) analyze reflexive and descriptive uses of bodily metaphors.
- Specialized paremiological and phraseological databases ensure coverage of proverb inventories. The following sources were integrated and cross-referenced:
  - Russian: Digitalized entries from Dal’s Толковый словарь живого великорусского языка and the Большой словарь русских поговорок.
  - English: The digital Oxford Dictionary of English Proverbs and the Cambridge International Dictionary of Idioms.
  - Japanese: Digitized data from Kotowaza Jiten (Iwanami Shoten) and the Nihon Kokugo Daijiten entries on kotowaza and kan’yōku (idioms).

3. Validation and annotation. All potential somatic paroemias were automatically extracted using part-of-speech tagging and lemma searches targeting a pre-defined list of somatic lexemes<sup>[19]</sup> (e.g., heart, gut, soul/сердце, душа, печень/「腹」「心」「腸」). Initial extractions were manually validated and annotated by a team of three native-speaking linguists per language. Annotations included:

- Metaphor flag as the identification of metaphorical vs. literal usage.
- Somatic domain as the categorization of body part referenced (visceral, muscular, sensory, etc.).
- Target domain as the categorization of the abstract concept mapped (e.g., emotion, character, state).

## 2.3. Analytical Procedures

Phase 1 established a quantitative foundation through corpus-linguistic profiling and pattern identification, employing #LancsBox 6.0 to analyze the validated somatic paroemias. This TC-SPA analysis generated frequency and salience lists ranking somatic terms across language corpora, alongside collocational networks to map their statistically significant lexical companions and identify recurrent thematic clusters. The extended datasets from this phase, which provide a comprehensive overview of high-frequency and high-keyness paroemias beyond those featured in the main text, are presented in the supplementary tables of **Appendix A.2**, offering a rigorous foundation for the subsequent qualitative and phenomenological phases.

Building upon the quantitative profiling, Phase 2

involved a systematic conceptual metaphor analysis and schema modeling for each somatic paroemia. This procedure, operationalized through a rigorous Metaphor Identification Procedure (MIP) detailed in **Appendix A.3**, entailed a four-step analytical protocol: establishing the expression's contextual meaning, determining the existence of a more basic physical meaning for the somatic term, assessing whether the contextual meaning contrasts with yet is comprehensible in comparison to this basic meaning, and categorizing the underlying image schema. These mappings were subsequently systematized into coherent cultural models.

Phase 3, diachronic and contrastive validation: key proverbs demonstrating the core schemas were traced through historical dictionaries and paremiologies to document their first recorded use and semantic evolution<sup>[19]</sup>. Furthermore, translation equivalents between the languages were analyzed to highlight irreducibly culture-specific conceptualizations.

Phase 4, the gesture-phenomenological integration, employed the ethnographic and elicitation data to construct “embodied profiles” for key paroemias. These profiles provided an essential empirical grounding, serving as a methodological check to ensure that the derived abstract schemas remained systematically integrated with and rooted in observable bodily practices and subjective experiential reports, as detailed in **Appendix A.1**.

## 3. Results

### 3.1. Quantitative Profiling: The Somatic Landscapes of Russian, English, and Japanese

We address the primary research question: Which body parts are proverbially prominent, and how do they cluster within each linguistic tradition? The analysis employs two corpus-linguistic measures: frequency, which identifies the most common words; keyness, which highlights words statistically over-represented in a target corpus compared to a general reference corpus<sup>[20]</sup>. While frequency indicates raw usage, keyness is a strong indicator of a term's aboutness to the specific cultural-linguistic domain under study in this case<sup>[21, 22]</sup>. The dual approach prevents the highly significant

oversight of but moderately frequent terms that are definitive of a culture's somatic lexicon.

#### 3.1.1. Frequency and Keyness Rankings

The quantitative analysis reveals distinct culturally patterned somatic hierarchies. **Table 2** presents a ranked list of the foremost somatic lexemes for each language. The ranking is determined by normalized frequency and keyness score, metrics derived from comparison with large, balanced reference corpora of general language (e.g., the Russian National Corpus, the British National Corpus, and the Balanced Corpus of Contemporary Written Japanese).

#### Key Findings:

- The Russian data confirms the absolute predominance of ДУША (*dusha, soul/spirit*) with a keyness score of 148.7; it is the definitive somatic keyword of the Russian corpus, occurring with a frequency 3.2 times greater than the linguistically expected baseline for body-part terms. This underscores its unique role as the central locus of emotional, moral, and existential experience. Its nearest somatic counterpart, СЕРДЦЕ (*serdtse, heart*), shows a markedly lower keyness, highlighting that the concept of *dusha* carries a distinctive cultural salience that transcends anatomical reference<sup>[23]</sup>.
- The Japanese corpus is anchored by 「腹」 (HARA, BELLY/GUT) with the highest keyness score (165.4) across all three languages, which quantifies the profound centrality of the abdominal part in Japanese expressions. The lexeme 「心」 (KOKORO, HEART/MIND/SPIRIT) appears as a holistic counterpart, but its conceptual domain is intimately connected to *hara* in the cultural schema<sup>[24]</sup>.
- The English presents an internally differentiated somatic triad forming a clear interiority hierarchy: HEART/HEAD/GUT. This tripartite structure reflects a cultural model where decision-making and emotion are distributed across competing internal centers, a HEART VS. HEAD dichotomy, with GUT serving as a third, instinctual authority<sup>[25]</sup>. The notable frequency of BACK (*as in “backbone” for courage or “to watch one's back”*) points to a schema of structural support and vulnerability.

**Table 2.** Top somatic lexemes by normalized frequency and keyness score.

Rank	Russian Lexeme	Gloss	Freq. (Per 1m)	Keyness	English Lexeme	Freq. (Per 1m)	Keyness	Japanese Lexeme	Gloss	Freq. (Per 1m)	Keyness
1	ДУША	soul/spirit	842	148.7	HEART	917	132.4	「腹」(hara)	belly/gut	785	165.4
2	СЕРДЦЕ	heart	721	98.2	HEAD	891	121.8	「心」(kokoro)	heart/mind	654	105.6
3	РУКИ	hands	543	45.3	GUT	234	87.5	「目」(me)	eye	598	67.3
4	ГОЛОВА	head	501	32.1	BACK	412	45.9	「胸」(mune)	chest	421	41.2
5	НОГИ	legs/feet	487	28.8	BONES	187	34.2	「顔」(kao)	face	398	32.8

### 3.1.2. Collocation Networks and Semantic Domains

The analysis of collocations reveals the specific semantic and syntactic roles illuminating the cultural function. The collocational profile of ДУША (*soul/spirit*) is characterized by verbs of *movement, exposure, and affective experience*. Verbs of movement/displacement “*уходит*” (*to go away*), “*входит*” (*to enter*), “*рваться*” (*to tear/strive*)<sup>[14]</sup> constructs the soul as “*a mobile entity within the body’s space*”<sup>[14]</sup> (e.g., “*душа уходит в пятки*”—“*the soul goes down into the heels*”, meaning *to be terrified*). Adjectives/adverbs of openness & capacity “*широкая*” (*wide*), “*открытая*” (*open*), “*нараспашку*” (*wide open*)<sup>[18]</sup> frames “*sincerity*” and “*generosity*” as the state of uncontained exposure (e.g., “*душа нараспашку*”). Verbs of affective suffering or investment “*болеть*” (*to ache*), “*вкладывать*” (*to invest*), “*не лежать*” (*to not be disposed*)<sup>[11]</sup> shows the soul as a vulnerable, feeling entity that is actively engaged with the world. The collocational network of ДУША as a “*mobile, vulnerable, and expressive inner essence*”<sup>[11]</sup>, whose ideal state is one of sincere openness, but which is susceptible to “*falling*”, “*fleeing*”, or “*aching*” in response to life’s events.

The collocational profile of HEART emphasizes “*authenticity, internal affective states, and binary opposition*”<sup>[26]</sup> in the English language. The adjectives of authenticity and condition (“*heartfelt*”, “*heartbroken*”, “*heavy-hearted*”, “*light-hearted*”) <sup>[26]</sup> qualify emotions as genuine and deeply internalized. Verbs of knowing and possession (“*to know by heart*”, “*to learn by heart*”, “*to have a heart*”) <sup>[27]</sup> as the seat of memorized, fundamental, or innate truth. The prepositional and oppositional frames (“*at heart*”, “*in one’s heart*”, “*heart vs. mind*”, “*heart vs. head*”) <sup>[28]</sup> spatially locate true feeling internally and set it in conscious tension with rational thought. HEART functions as the container of true emotion and core self, contrasted with the intellect. Its state (*broken, light, heavy*) metaphorically represents emotional conditions, emphasizing an internal, private emo-

tional landscape.

The collocational profile 「腹」 (BELLY/GUT) centers on *stability, intent, truth, and social discernment*<sup>[29]</sup>. Willpower and resolve are conceptualized as abdominal events using the verbs of *decision and settlement* 「*決まる*」 (*kimaru*) *to be decided*, 「*据わる*」 (*suwaru*) *to be settled*, 「*固める*」 (*katameru*) *to harden/solidify*<sup>[10]</sup>. True intention is located in and can be discerned from the belly using the verbs of *perception and understanding* 「*見える*」 (*mieru*) *to be seen*, 「*読む*」 (*yomu*) *to read*<sup>[22]</sup> e.g., 「*腹を読む*」—“*to read the belly*”, meaning *to guess someone’s true intent*). Moral character is evaluated by *adjectives of moral and character quality* 「*黒い*」 (*kuroi*), “*black*” for *dishonesty*, 「*太い*」 (*futoi*) “*thick/broad*” for *magnanimity*, 「*小さい*」 (*chii-sai*), “*small*” for *pettiness*<sup>[26]</sup> through abdominal metaphors. HARA is conceptualized as the physical and moral center for an individual<sup>[30]</sup> as the authentic intention seat 「*本心*」 (*hon-shin*), unwavering resolve, and social intuition, representing a unified center of thought, feeling, and volition distinct from the cerebral HEAD.

### 3.2. Conceptual Metaphor Analysis: Decoding Embodied Schemas

We decode the foundational image-schematic structures that organize each culture’s somatic lexicon<sup>[31]</sup> by applying Conceptual Metaphor Theory<sup>[32]</sup>. The analysis reveals three distinct cultural schemes for interpreting the inner self through the body<sup>[33]</sup>.

- The Russian MOBILE SOUL, the model of vertical mobility and moral spaciousness<sup>[18]</sup>, where the self is a dynamic, expressive entity evaluated by its orientation and expansiveness.
- The English PRESSURIZED CONTAINER, the model of hydraulic containment and internal pluralism<sup>[32]</sup>, where the self is a site of managed pressures and negotiation between distinct internal authorities.
- The Japanese ABDOMINAL CENTRALITY, the model

of holistic integration and centered resolve<sup>[10]</sup>, where the self is a consolidated, intuitive core from which thought, feeling, and will originate.

### 3.2.1. The Russian Schema: Verticality, Moral Openness, and the Mobile Soul

The Russian somatic schema ДУША (*dusha/soul*) is structured by two primary conceptual metaphors framing as a dynamic, spatialized entity whose location and condition define the self.

Moral/spiritual state is vertical orientation<sup>[34]</sup>—a positive moral or vital state is conceived as upright and elevated, while negative psychological events trigger a literal collapse. In the proverb “*душа уходит в нямку*” (*dusha ukhodit v pyatki*) translation “*the soul goes down into the heels*”, extreme fear causes the soul to flee downwards, abandoning its central position. Similarly, the idiom “*упасть духом*” (*upast' dukhom*), translation “*to fall in spirit*” conceptualizes despondency as “*the vertical integrity loss*”. This schema extends to the heart “*сердце упало*” (*serdtse upalo*), translation “*the heart fell*”, but it is the soul’s movement that carries the deepest existential weight.

Sincerity is openness<sup>[34]</sup> schema defines the moral character “*душа нараспашку*” (*dusha naraspashku*), translation “*soul wide open*”, compared to an unbuttoned coat denotes extreme sincerity. Generosity in “*широкая душа*” (*shirokaya dusha*) translation “*a wide soul*”, whereas a mean person has a “*душа на нитке*” (*dusha na nitke*), translation “*a soul hanging by a thread*” or a “*душа с копеечку*” (*dusha s kopeichku*), translation “*a soul the size of a kopeck (Russian currency)*”<sup>[34]</sup>.

### 3.2.2. The English Schema: Visceral Containment, Internal Pressure, and Cardiac-Centricity

The English somatic logic is governed by the deep-rooted conceptual metaphor THE BODY IS A CONTAINER FOR EMOTIONS giving rise to the model of “*internal pressure and fragmented interiority*”<sup>[35]</sup> where emotions are consistently conceptualized as fluids, gases, or entities held within visceral spaces.

The containment/pressure schema is ubiquitous “*bursts with pride*”/“*bottles up anger*” imagining emotions as pressurized substances that can exceed the container’s capacity. Grief is “*gut-wrenching*” implying the violent, twisting ac-

tion within the abdominal cavity<sup>[36]</sup>. This schema necessitates management—emotions must be “*held in*”, “*let out*”, or “*poured forth*”, framing emotional control as hydraulic regulation. The HEART is privileged as the seat of the authentic self, creating a cardiac-centric model of truth; as deeply internalized knowledge “*by heart*” and genuine sentiment is “*heartfelt*” thanks<sup>[37]</sup>.

The binary opposition captured in the metaphor THE SELF IS DIVIDED as conflict “*my heart says yes, but my head says no*”<sup>[38]</sup>, or “*listen to your gut*”<sup>[39]</sup>. The HEART (emotion, authenticity), the HEAD (reason, calculation), and the GUT (instinct, intuition) are personified as the separate agents within the bodily container, reflecting a cultural model of the self as a site of internal negotiation and potential conflict<sup>[40]</sup>.

### 3.2.3. The Japanese Schema: Abdominal Centrality “Hara” and Somatic-Volitional Unity

The Japanese schema exemplifies a holistic, center-located model of self-governed by the core metaphor THE TRUE SELF/CENTER IS IN THE BELLY (*hara*). HARA schema integrates emotion, volition, and thought into a single, stable abdominal core, reflecting principles of mind-body unity (*shinshin ichinyo*)<sup>[41]</sup>. Firm resolution is expressed as 「*腹が決まる*」<sup>[33]</sup> (*hara ga kimaru*), translation “*the belly decides*”. The metaphor originating from the historical practice of tying a kimono’s sash before battle or committing to an act—「*腹をくくる*」<sup>[41]</sup> (*hara o kukuru*) meaning “*to tie the belly*” (“*to prepare mentally for a challenge*”). Willpower is a somatic consolidation at one’s physical center of gravity.

Emotional and moral states are similarly mapped onto abdominal conditions, like *anger*, which is expressed in 「*腹が立つ*」<sup>[40]</sup> (*hara ga tatsu*)—translation “*the belly rises/stands*” or 「*腹が黒い*」<sup>[40]</sup> (*hara ga kuroi*) translation “*a black belly*” meaning “*a deceitful person*” or 「*腹が太い*」<sup>[40]</sup> (*hara ga futoi*) translation “*a thick/broad belly*” meaning “*magnanimous person*”.

This conceptualization fosters holistic unity: the compound 「*腹心*」<sup>[40]</sup> (*fukushin*) translation “*belly-heart*” meaning “*a trusted confident person*” merging the centers of thought and feeling. Crucially 「*はらわた*」<sup>[41]</sup> (*harawata*) translation “*guts*” meaning “*genuine thought/one’s innermost thoughts*” and 「*腹を読む*」<sup>[40]</sup> (*hara o yomu*) translation

“to read the belly” meaning “to discern another’s true intentions”. This stands in contrast to the English HEART VS. HEAD *dichotomy* presenting a model where authentic cognition, emotion, and intention emanate from a unified somatic core<sup>[41]</sup>.

### 3.3. Diachronic and Contrastive Validation

Tracing the etymology and historical usage of somatic idioms reveals how bodily practices and folk beliefs crystallize into metaphorical language of a culture.

The proverb “*душа в пятку ушла*” translates to “*the soul went down into the heels*”, from pre-modern Slavic folk physiology, which conceived of the “*душа*” (*soul*) as a semi-autonomous, mobile entity residing in the body<sup>[42]</sup>. In moments of extreme terror, it was believed this soul could literally flee, often downwards. The idiom “*в пятку*” (“*into the heels*”) concretizes this visceral experience of fear as a sudden somatic descent. By the 19th century, this belief had metaphorized into a standard idiom for paralyzing fright, retaining the core schema of the soul as a mobile entity subject to vertical collapse<sup>[43]</sup>.

The etymology of “*to know by heart*” is anchored in medieval European thought, where the “*heart*” was considered the memory center, intellect memory, and core identity. Monastic practice involved memorizing scripture “*by heart*” meaning to internalize it into one’s very being. This reflects a *cardiac-centric* authentic model of knowledge<sup>[44]</sup>. Over centuries, as the “*head*” claimed dominion over reason, the phrase evolved to signify deeply internalized, automatic knowledge, preserving the heart’s connection for truthful, non-cerebral understanding.

The 「腹をくくる」 (*hara o kukuru*)<sup>[44]</sup> meaning “*to tie the belly*” originates in the tangible, physical samurai class preparation. Before battle or the ritual of *seppuku*, a warrior would literally tighten *the sash (obi)* around his abdomen, stabilizing his physical and spiritual center. This act of abdominal consolidation was a direct death preparation or unwavering resolve<sup>[45]</sup>. The metaphorized process transferred the concrete bodily technique into the psychological domain, so that 「腹をくくる」<sup>[46]</sup> now means “*mentally prepare oneself with steely determination*”, demonstrating how decision is conceptualized as a somatic state of the 「腹」 (*hara*).

## The Untranslatable Core: Contrastive Analysis Evidence

The historical depth of these schemas leads to a fundamental challenge in translation: the inability to map culturally specific bodily logics onto foreign somatic landscapes without significant conceptual loss.

### Case Study 1: The Russian “Тоска” and the Mobile Soul

The concept of “*тоска*” (*toska*) presents a profound translation challenge: a profound, metaphysical yearning or spiritual anguish which is somatically anchored in the “*душа*”. As explored in analyses of translating depressive emotions, direct translations like English “*melancholy*”, “*anguish*”, or Japanese 「鬱」 (*utsu, depression*) fail catastrophically. They reduce the concept to a clinical or emotional state, utterly stripping away the core somatic-spiritual dimension. “*Тоска*” is not just a feeling one *has*; it is a condition of the soul that one *inhabits* a soul that is described as aching “*болеть душой*”, wandering, or being oppressed<sup>[47]</sup>. The translations lose the active, spatial, and mobile qualities of the suffering “*душа*”, erasing the very schema that gives the emotion its distinct cultural texture.

### Case Study 2: The Japanese 「腹」 and the Location of Intuition

The proverb 「腹を読む」 (*hara o yomu*)<sup>[48]</sup> translation “*to read the belly*” illustrates the somatic authority untranslatability. Standard English translation “*to read someone’s mind*”, and Russian “*думать что у кого на уме*” (*dumat’ chto u kogo na ume*) translation “*to think what’s on someone’s mind*”—perform a critical *somatic relocation*. They transfer the intuition locus and unspoken intention from the abdominal center 「腹」 (“*hara*”) to the cerebral center (“*mind*”, “*ум*”). This is a fundamental embodied logic distortion: the Japanese phrase asserts that true intent is grounded in the visceral, stable 「腹」 (“*hara*”) accessible through somatic empathy/gut instinct. The Western translations, in contrast, reinforce a mind-centric model of hidden thought. The BELLY is not simply a metaphorical substitute for MIND; it represents an entirely different cultural model of where the true self and its intentions reside. Somatic paroemias are durable archives of cultural *habitus* and their historical roots explain their persistence, while their resistance to translation



underscores that they are not mere decorative phrases but fundamental, culturally-specific frameworks for interpreting human experience through the body.

### 3.4. Educational Salience: Somatic Paroemias as Informal Pedagogical Tools

The somatic paroemias are the cultural memory carriers and their pedagogical power lies in their mnemonic simplicity, narrative framing, and embodied recall.

- In Russian child-rearing and moral education idioms like “*Душа нараспашку*”<sup>[47]</sup> (“*Soul wide open*”) or “*У него душа на нитке*”<sup>[47]</sup> (“*His soul hangs by a thread*”) are evaluative narratives used to socialize children into a specific moral and emotional economy. They teach that sincerity (“*искренность*”) is expressed through expansive openness, while miserliness is a spiritual constriction form. This informal pedagogy reinforces the communal sharing values and emotional expressivity forming a foundational layer of moral education that precedes formal schooling.
- In English-language classrooms and self-help discourse the pervasive “*heart vs. head*” dichotomy (“*Listen to your heart,*” “*Use your head*”) functions as a metacognitive scaffold for navigating internal conflict<sup>[38]</sup>—the concept central to Anglo-American models of individualism and rational choice. Similarly, idioms like “*learn by heart*” or “*gut decision*” implicitly teach a tripartite model of knowing: cerebral, emotional, and instinctual<sup>[38]</sup>. These expressions are frequently invoked in educational and developmental contexts to guide learners in managing emotions, making decisions, and internalizing knowledge, reflecting a pedagogical emphasis on self-regulation and internal negotiation.
- In Japanese educational and social harmony (*wa*) maintenance the *hara*-centric lexicon is fundamental to social and emotional learning in Japan. Phrases like “*腹をくくる*” (*hara o kukuru*)<sup>[48]</sup> are used to teach perseverance and mental fortitude, while “*腹を読む*” (*hara o yomu*)<sup>[48]</sup> instructs learners in the crucial skill of non-verbal, empathetic attunement reading the true intentions of others to maintain group harmony<sup>[41]</sup>. This somatic vocabulary in Japanese educational philosophy is integral to teaching the cultural values of resolve

「*覚悟*」 (*kakugo*), patience, and indirect communication, skills as important as academic knowledge.

The somatic paroemias constitute a pervasive, culturally-specific hidden curriculum for the intergenerational transmission of embodied cultural capital, shaping the learner’s habitus before they ever enter a formal classroom. Recognizing this important layer is essential for educators seeking to understand the deep cognitive and affective schemas students bring into diverse learning environments.

### 3.5. Synthesis: A Cross-Cultural Model of Somatic Logics

The preceding analysis of quantitative profiles, conceptual metaphors, and historical trajectories converges to reveal that somatic paroemias are not isolated linguistic curiosities. Instead, they constitute coherent, culturally-specific systems that can be termed “embodied schemas”. These schemas function as intercorporeal texts: durable, transmissible scripts that archive a community’s historical habitus (the ingrained, embodied dispositions shaped by culture) and provide a shared framework for interpreting inner life through bodily experience. These embodied schemas act as culturally specific filters for pre-reflective experience and mediate between two poles: (1) the universal corporeality shared by all humans and (2) the particular historical and cultural community experiences. The visceral tension sensation might be interpreted through the English “containment” filter, e.g., “*butterflies in the stomach*” as *anxiety*, Japanese “centrality,” e.g., “*腹が据わる*” (*hara ga suwaru*)—as *becoming resolute*, or Russian “moral mobility”, thereby shaping the very perception and categorization of the inner state.

The integrated findings are synthesized into the following cross-cultural model illustrated in **Table 3**.

The table confirms the central thesis that the somatic paroemias form a culturally crystallized patterned system. They are the linguistic sediment of what philosopher Maurice Merleau-Ponty identified as the pre-reflective, bodily understanding of the world the corps propre or lived body<sup>[40]</sup>. Each schema the ДУША—*centric verticality* of Russian, the HEART/GUT—*centric containment* of English, and the 「*腹*」 (HARA)—*centric centrality* of Japanese represents a

unique cultural blueprint for interpreting universal corporeal sensations. These embodied schemas mediate between two poles:

- the universal corporeality shared by all humans and the particular historical;
- cultural experiences of a community<sup>[14]</sup> which are transmitted intercorporeally through language, gesture, social practice thereby a shared reinforcing of national

identity.

To understand a Russian speaker’s sincerity conceptualization, an English speaker’s internal conflict experience, or a Japanese speaker’s decision-making process, we should engage with these deep-seated somatic logics<sup>[18]</sup>. The somatic paroemias analysis is a fundamental methodological entry point for the embodied grounding decoding of cultural memory and identity.

**Table 3.** A cross-cultural model of embodied somatic schemas.

Cultural-Linguistic System	Core Schema and Visual Model	Governing Metaphors	Key Somatic Locus and Its “Action”	Standard Paroemia
Russian	<i>Vertical Axis and Moral Spaciousness</i> The dynamic model <i>vertical mobility</i> and <i>horizontal expansiveness</i> . The ideal state is an elevated, open soul; distress triggers descent and constriction.	– MORAL STATE IS VERTICAL ORIENTATION – SINCERITY IS OPENNESS	ДУША ( <i>Soul/Spirit</i> ) Action: To rise/fall, to open/close, to ache, to depart.	“Душа уходит в пятки” (The soul goes into the heels)—terror/fear. “Душа нараспашку” (Soul wide open)—sincerity.
English	<i>Hydraulic Container and Pluralist Interior</i> The body model as a <i>container</i> divided into chambers with emotions as <i>pressurized substances</i> . The self is a site of internal negotiation.	– THE BODY IS A CONTAINER – EMOTIONS ARE FLUIDS/PRES-SURES – THE SELF IS DIVIDED	HEART ( <i>Seat of true self</i> ) & GUT ( <i>Seat of instinct</i> ) Action: To burst, to wrench, to sink, to feel.	“Bursting with pride” “My heart says yes, but my head says no”
Japanese	<i>Concentric Centrality and Somatic-Volitional Unity</i> A <i>holistic, center-located</i> model where the abdomen is the stable core from which will, emotion, and thought emanate.	– THE TRUE SELF IS IN THE BELLY – EMOTION/VOLITION IS AN ABDOMINAL STATE	「腹」(HARA, BELLY/GUT) Action: To decide ( <i>kimaru</i> ), to be settled ( <i>suwaru</i> ), to rise ( <i>tatsu</i> ).	「腹が決まる」( <i>Hara ga kimaru</i> )—The belly decides—resolve. 「腹を読む」( <i>Hara o yomu</i> )—To read the belly)—intuit.

## 4. Discussion

### 4.1. Revisiting the Epistemological Divide: A Synthesis through Embodied Schemas

The three identified schemas resolve the false dichotomy between neurocognitive universalism and cultural phenomenology by revealing the interplay mechanism. These schemas are neither hardwired neurological modules nor free-floating cultural constructs. They represent culturally patterned simulations of universal bodily potentials<sup>[28]</sup>. The human capacity for vertical posture, visceral

sensation, and bodily containment provides the universal somatic “raw material” as the conceptual metaphor source domains. Culture through historical experience and social practice selectively elaborates and privileges certain potentials over others, forcing them into coherent logic for world interpreting.

- Merleau-Ponty’s “Flesh” and Intercorporeality are the perfect instantiation termed the “historical flesh”<sup>[40]</sup>. The shared community experience of the vast plains influencing Russian spatial metaphors or the samurai code shaping Japanese hara becomes sedimented into

a collective bodily style<sup>[39]</sup>. The “intercorporeality” is facilitated precisely through shared somatic idioms like “душа нараспашку” or 「腹が決まる」 which allow – members to presuppose a common ground of bodily feeling.

- Mauss’s “Body Techniques” & Bourdieu’s “Habitus” are the discursive counterparts to Mauss’s techniques of the body and the primary linguistic vehicles for inculcating Bourdieu’s habitus<sup>[19]</sup>. The expression like “stand on your own two feet” prescribes a posture and an attitude. These sayings are pedagogical tools that reinforce culturally specific ways of body inhabiting, turning biological capacities into socially intelligible dispositions<sup>[7]</sup>.
- Lakoff and Johnson’s “Conceptual Metaphor” provides robust, cross-cultural validation for the embodied cognition theory. It demonstrates that while source domains like VERTICALITY, CONTAINMENT, and CENTER-PERIPHERY may be universal, their cultural elaboration and relative importance are profoundly particular<sup>[36]</sup>. The Russian elaboration of VERTICALITY for moral states, the English preoccupation with CONTAINMENT for emotion, and the Japanese focus on CENTRALITY for the self-show culture actively “selecting” and “refining” from the embodied metaphor inventory<sup>[36]</sup>.

Somatic paroemias are intercorporeal texts performative scripts that guide bodily perception, practice, and interpretation<sup>[46]</sup>. The shared somatic schema grounds national identity at a pre-reflective, corporeal level and creates an “embodied logic” the deep feeling, intuitive commonality among speakers<sup>[34]</sup>. Their function is mnemo-technical, preserving and transmitting the somatic *habitus* across generations. The transmission mechanism is tripartite:

- Sensorimotor simulation—the processed phrases trigger embodied simulations<sup>[5]</sup> like hearing “gut-wrenching” may subtly activate abdominal discomfort; understanding “душа уходит в пятки” might evoke the fleeting sense of downward collapse<sup>[8]</sup>.
- Narrative framing—provide a ready-made, culturally sanctioned ambiguous bodily feelings narrative: abdominal agitation is interpreted and validated as 「腹が立つ」 (“feeling righteous anger”) in Japanese, whereas in

English, it might be expressed as a “gut feeling” of intuition/anxiety<sup>[10]</sup>.

Scaffolding technique for body “wide soul” (“широкая душа”) in Russian encourages expressive, open gesture; the concept of 「腹をくくる」 (“tying the belly”) metaphorically guides the psychological technique and physical consolidation<sup>[14]</sup>.

## 4.2. Training Teachers “To See the Body’s Language”: From Cultural Misunderstanding to Somatic Empathy

Profound misunderstandings occur at this somatic pre-conscious level. The Russian expression of “душа нараспашку” (soul wide open) might be perceived by the English speaker as overwhelming, intrusive, or lacking in proper boundary management. Therefore, the effective intercultural training should move beyond behavioral etiquette to include the cultivation of “Physical Cultural Intelligence” an awareness of these divergent somatic schemas<sup>[49]</sup>. Language acquisition should involve more than vocabulary and grammar; it must include the target language embodied worldview. Pedagogies could integrate somatic paroemia analysis, exploring the metaphors behind idioms, linking them to characteristic gestures, and contrasting them with the learner’s native bodily logic.

For instance, a lesson on the Japanese concept 「腹」 hara would move beyond translating 「腹をくくる」 (hara o kukuru) as “to make up one’s mind” which would explicitly teach the abdominal centrality schema explaining its historical link to samurai preparation and contrasting it with the English conflict model of “heart vs. head”. A practical pedagogical activity could involve students physically exploring center postures while learning 「腹をくくる」 contrasting this with English internal conflict postures (e.g., a gesture pointing from head to heart). This transforms idiom acquisition from rote memorization into a multisensory engagement with cultural somatic logic, directly addressing the pedagogical deficit identified in current cross-cultural training<sup>[50]</sup>.

Our findings highlight the challenge of untranslatability at the level of embodied concept. Translating 「腹を読む」 as “to read someone’s mind” is a pragmatic failure, as it relocates the intention seat from the belly to the head, erasing the cultural logic<sup>[51]</sup>. Translators must choose between pragmatic equivalence and phenomenological fi-

delity underscoring the need for thick description in cross-cultural texts. The findings demand the core re-evaluation concepts in cross-cultural education moving beyond surface level cultural competence toward embodied pedagogical competence.

- Culturally responsive Pedagogy calls for educators to interpret student behavior through the cultural understanding lens. For instance, a teacher might recognize that an expressive student with a Russian background is not simply being disruptive, but may be demonstrating a cultural value of open emotional sincerity. Similarly, a quiet, internally focused student with a Japanese background might not be disengaged, but could be demonstrating a form of deep, centered concentration known as “hara”. By seeing these actions as the cultural background expressions, a teacher can fundamentally shift their approach to both classroom management and evaluating student participation.
- The foreign language teachers and ESL educators should intentionally integrate culturally specific sayings about the body to make language and social studies curricula truly effective. These are not just optional idioms, but fundamental reflections of a culture’s worldview. For example, textbooks could feature units built around contrasting conceptual metaphors, such as comparing the English notion of THE BODY AS A CONTAINER with the Japanese concept of THE BODY AS A CENTER. This approach moves beyond vocabulary, transforming language learning into a practice of cultural and cognitive adaptability.
- Teacher training programs, both before and during their careers, should incorporate dedicated learning on Embodied Cultural Linguistics. This prepares educators to examine the unconscious body-based metaphors in their own speech, such as telling students to “*think hard*”/“*speak from the heart,*” while also learning to identify the different physical and cultural communication patterns their students may use<sup>[52]</sup>. This awareness is essential as it helps to reduce unconscious bias in the classroom and fosters a more equitable learning environment where diverse forms of expression and understanding are genuinely valued.

Our current systems for testing and evaluation often

unconsciously reflect the physical and cultural norms of the dominant society. For instance, assessments that reward tightly structured, verbally explicit answers a common standard in education can inadvertently place students from other backgrounds at a disadvantage. This happens when a student’s cultural framework values a deep, internal resolve or a sincere, open-hearted expression over the prescribed format. We must first recognize these foundational differences in how understanding and competence are expressed, moving beyond a one-size-fits-all approach to create fair and meaningful evaluations. Education must reach beyond the memorization but calls for somatic empathy as the ability to sense and appreciate how other cultures experience the world through the body to build true global understanding<sup>[53]</sup>. Programs dedicated to fostering global citizenship can achieve this by comparing the unique physical expressions found in different languages. When students explore these contrasts, they learn to intuitively connect with alternative worldviews, cultivating a more profound and respectful sense of our global interdependence.

### 4.3. Limitations

However, it is important to acknowledge several key limitations within this study. First, while our strategic focus on three Eurasian languages provides a strong starting point, the scope must be significantly expanded. This model needs to be tested against the rich and diverse linguistic systems found in indigenous, African, or Polynesian cultures to truly validate and refine our proposed typology of somatic schemas. An equally important limitation concerns historical depth, although we traced the historical paths of key phrases, a comprehensive and quantitative analysis of how each body-based schema has evolved over time remains a substantial task for future research in historical linguistics.

Furthermore, our analysis operates at the broad cultural patterns. The next crucial step is to investigate the individual spectrum experience on how people personally embody, resist, or creatively reinterpret these shared cultural models. This focus on the individual leads to another constraint is our corpus. Despite the compilation process, any collection of language data has inherent gaps. Our reliance on written and published sources may unintentionally overlook the vibrant somatic expressions found in oral traditions, regional dialects, or specific subcultures<sup>[54]</sup>.

Finally, we must critically address the lens through which this analysis was conducted. The study necessarily uses English as its analytical metalanguage and employs theoretical terms derived from Western academia to enable cross-cultural discussion. While this is a practical necessity, it introduces an unavoidable interpretation layer. We must remain critically aware that this approach carries the subtly imposing risk the analyst's own categorical framework onto the lived, experiential logic of another culture, which is a central reflexive consideration for this field of study<sup>[55]</sup>.

#### 4.4. Future Research

First, this methodology should be systematically applied to a much wider spectrum of language families, from Indigenous to African to Polynesian systems, to construct a truly global typology of how different cultures embody thought. Experimental neurolinguistic studies could use tools like fMRI to investigate whether processing a Japanese phrase/an English phrase actively engages distinct sensorimotor networks in the brain, providing a biological correlate for cultural concepts to complement this broad mapping. Alongside, these longitudinal studies are needed to understand how these deep-seated bodily schemas develop, tracing how children absorb them through a language combination, gesture, and social interaction. The ultimate test lies in application. We must design and rigorously assess targeted interventions in both language classrooms and corporate training that explicitly teach these somatic frameworks, measuring their real-world impact on comprehension, empathy, and effective communication.

Ultimately, this work repositions the somatic sayings study from a peripheral curiosity to a central scholarly endeavor. It reveals how cultures think, remember, and maintain coherence through the living body, transforming proverb study from a folkloric pursuit into a vital concern for cognitive science and anthropology. It argues that the body is far more than a biological given; it is a fundamental medium of cultural heritage. Decoding these embodied schemas provides us with an essential tool for navigating our intercultural world not only intellectually, but with deep somatic empathy. Future research must continue to chart this profound connection between the felt experience of the body and the collective life of society.

## 5. Conclusions

This research has undertaken a systematic cross-cultural excavation of somatic paroemias body-referencing proverbs and idioms to decode the embodied schemas that underpin cultural memory and identity. Through a triangulated analysis of Russian, English, and Japanese linguistic corpora, conceptual metaphors, and historical trajectories, the study arrives at several definitive conclusions that affirm and refine its initial hypotheses.

First, the study makes a decisive empirical contribution by providing the first systematic, comparative analysis of somatic paroemias across three major linguistic and cultural spheres. It has identified and delineated three distinct, coherent embodied schemas: the Russian schema of verticality and moral openness, centered on the mobile ДУША (soul); the English schema of visceral containment and internal pluralism, focused on the heart-gut-head triad<sup>[37]</sup>; and the Japanese schema of abdominal centrality and unity, anchored in 「腹」 (HARA). This mapping moves beyond anecdotal observation to provide a data-driven cartography of cultural somatics.

Second, it delivers a significant theoretical contribution by resolving a persistent epistemological divide. The findings demonstrate that somatic paroemias function as intercorporeal texts. They are the crucial, missing link that mediates between universal corporeality (shared human physiology) and cultural particularity (historical experience). These texts do not merely describe the body; they actively ground abstract notions of identity, emotion, and morality in a shared, pre-reflective bodily logic. They operationalize Merleau-Ponty's "flesh" and Mauss's "body techniques", showing how habitus is linguistically encoded and somatically transmitted. Consequently, the study argues for the recognition of somatic paroemiac systems as a distinct and fundamental object of study in the humanities and social sciences situated at the intersection of language, body, and culture which provides a replicable key for decrypting the embodied foundations of identity.

Third, the work offers a substantive methodological contribution. It establishes and validates a robust, replicable model for studying the embodiment of cultural memory through the integrated analysis of language (corpus linguistics), thought (conceptual metaphor theory), and practice (historical-ethnographic context). This interdisciplinary

framework provides a blueprint for future research into the somatic foundations of culture. The proposed Corpus-Based Triangulation model offers a formal pathway for other researchers to excavate and compare embodied schemas in diverse linguistic and cultural contexts.

The research conclusively demonstrates that somatic paroemias are fundamental, yet historically overlooked, infrastructure for cultural cohesion. They are not ornamental phrases but functional cultural organs. By archiving a community's historical *habitus* in a "frozen" yet instantly actionable form whether in the call to open one's soul ("*dyua napacnauky*"), to feel visceral pressure ("*bursting with pride*"), or to fortify one's center 「腹をくくる」 they ensure the intercorporeal transmission of a shared way of being-in-the-world. Consequently, to truly understand a culture requires more than analyzing its institutions or ideologies; it necessitates decoding the somatic schema silently woven into the very fabric of its language.

This work reorients the study of proverbs from a niche folkloric interest to a central concern for cognitive science, linguistic anthropology, and identity studies. For the field of cross-cultural education, it provides an essential theoretical and methodological bridge. It posits that the body is far more than a biological given; it is a core medium of cultural heritage, a living archive shaped by and shaping history. By decoding these embodied schemas, we gain a powerful hermeneutic tool for critically examining and transforming educational practices. This tool fosters not just intellectual understanding but somatic empathy the capacity to intuitively grasp, or at least respectfully recognize, the different bodily logics through which others experience life. Future research must expand this comparative map to include a greater diversity of global languages, applied pedagogical frameworks and curricular resources to translate this knowledge into enhanced intercultural competence and educational equity. In continuing to map the profound connection between the felt body and the body politic, we deepen our comprehension of what it means to teach and learn within the intricate, embodied tapestry of human culture.

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## Institutional Review Board Statement

The study did not require ethical approval.

## Informed Consent Statement

Not applicable.

## Data Availability Statement

The data used in this study are available from the corresponding author upon reasonable request.

## Conflicts of Interest

The author declares no conflict of interest.

## Appendix A

### Appendix A.1. Extended Examples from Gesture Ethnography: Embodied Profiles for Key Paroemias

This section provides detailed examples from the gesture ethnography and phenomenological elicitation described in Section 2.3, forming the "embodied profiles" referenced in Section 2.3 (Phase 4).

### Appendix A.2. Expanded List of High-Saliency Somatic Paroemias by Language

The following **Tables A2–A4** provide extended lists of high-frequency and high-keyness somatic paroemias for each language, beyond the top five presented in **Table A2** of the main text. These were identified through the TC-SPA analysis (Phase 1). The lists include the somatic term, a gloss, a representative idiom/proverb, and its primary mapped target domain (e.g., Emotion, Character, Intellect).

**Table A1.** Embodied Profiles: Gesture and Phenomenological Reports for Exemplary Paroemias.

Language	Target Paroemia	Recurrent Co-Speech Gesture Patterns (Observed)	Reported Somatic Sensation (Elicited)	Schema Alignment
Russian	“Душа нараспашку” (Soul wide open)	<i>Two-handed open-palm gesture moving outward from the sternum, often with a slight upward arc. Shoulders may be drawn back, chest expanded.</i>	A feeling of “unrestricted space in the chest,” “lightness,” or “warm expansion.”	OPENNESS / EXPANSIVENESS
	“Душа уходит в пятки” (The soul goes into the heels)	<i>Hand(s) moving rapidly downward along the torso, often ending with a pointing motion towards the feet. Posture may slump slightly.</i>	A sensation of “something dropping or falling inside,” “a hollow feeling,” or “energy draining downwards.”	VERTICAL COLLAPSE
English	“Bursting with pride”	<i>Hands start cupped together near the abdomen or chest, then thrust outward and open explosively. Often accompanied by a sharp inhalation.</i>	A feeling of “pressure building up inside” that needs release, described as “expansive” or “too much to contain.”	CONTAINMENT / PRESSURE
	“A gut-wrenching decision”	<i>Hand makes a slow, twisting motion over the abdomen. Brow is often furrowed.</i>	A visceral sensation of “knots,” “twisting,” or “tightness” in the stomach.	INTERNAL PRESSURE / CONFLICT
Japanese	「腹が決まる」 (Hara ga kimaru) (The belly decides)	<i>A firm, flat hand placed palm-down over the lower abdomen, sometimes followed by a slow, decisive nod. Posture becomes still and grounded.</i>	A feeling of “solidity,” “weight,” or “calm firmness” centering in the belly. A sense of clarity.	ABDOMINAL CENTRALITY / RESOLVE
	「腹を読む」 (Hara o yomu) (To read the belly)	<i>Fingers of one hand lightly tapping the side of the forehead, then gaze directed thoughtfully at the interlocutor’s midsection.</i>	A process of “quiet, focused attention,” trying to “sense” rather than think, often with a slight tension in the observer’s own <i>hara</i> .	SOMATIC INTUITION / ATTUNEMENT

**Table A2.** Extended High-Salience Somatic Paroemias: Russian.

Somatic Lexeme	Gloss	Exemplary Paroemia	Primary Target Domain
ДУША (dusha)	soul/spirit	Душа в пятки ушла (The soul went into the heels)	Emotion (Fear)
СЕРДЦЕ (serdtse)	heart	Сердце кровью обливается (The heart is drenched in blood)	Emotion (Grief/Pity)
РУКИ (ruki)	hands	Руки не доходят (The hands don’t reach [to do something])	Ability/Activity
ПЕЧЕНЬ (pechen’)	liver	Сидеть в печёнках (To sit in someone’s liver)	Emotion (Annoyance)
СПИНА (spina)	back	Нож в спину (A knife in the back)	Betrayal

**Table A3.** Extended High-Salience Somatic Paroemias: English.

Somatic Lexeme	Gloss	Exemplary Paroemia	Primary Target Domain
HEART	heart	To have a change of heart	Decision/Intention
GUT	gut	To hate someone’s guts	Emotion (Dislike)
BACK	back	To have someone’s back	Support/Loyalty
NECK	neck	To stick one’s neck out	Risk
SKIN	skin	To be thick-skinned	Sensitivity/Character

**Table A4.** Extended high-salience somatic paroemias: Japanese.

Somatic Lexeme	Gloss	Exemplary Paroemia	Primary Target Domain
「腹」 (hara)	BELLY/GUT	「腹が黒い」 (Hara ga kuroi—The belly is black)	Character (Dishonesty)
「心」 (kokoro)	HEART/MIND	「心に響く」 (Kokoro ni hibiku—To resonate in the heart)	Emotion/Understanding

Table A4. Cont.

Somatic Lexeme	Gloss	Exemplary Paremia	Primary Target Domain
「目」 (me)	EYE	「目が高い」 (Me ga takai—The eyes are high)	Discernment/Taste
「歯」 (ha)	TOOTH	「歯が浮く」 (Ha ga uku—The teeth feel loose)	Emotion (Discomfort/Disgust)
「骨」 (hone)	BONE	「骨が折れる」 (Hone ga oreru—The bone breaks)	Effort/Difficulty

### Appendix A.3. Detailed Protocol for Metaphor Identification Procedure (MIP) Application

This section expands on the Conceptual Metaphor Analysis (Phase 2) to ensure replicability. The following steps were applied to each high-salience paremia by a team of two analysts, with disagreements resolved by a third.

- Contextual Meaning: establish the meaning of the lexical unit in the specific textual context. E.g., for “душа нараспашку”: the contextual meaning is ‘extreme sincerity and lack of hidden feelings.’
- Basic Meaning: determine if the somatic term has a more basic, concrete, bodily meaning in contemporary usage. E.g., The basic meaning of ДУША is debated but often relates to an animating, non-corporeal essence; its basic meaning is less tangible than СЕРДЦЕ (heart as organ).
- Contrast & Understanding via Comparison: decide if the contextual meaning contrasts with the basic meaning but can be understood in comparison to it. E.g., ‘Sincerity’ (context) contrasts with ‘animating essence’ (basic), but we understand a sincere person as one whose inner essence is completely exposed, like an unbuttoned coat.
- Metaphor Classification: if steps 1–3 indicate a metaphor, identify the underlying *Image Schema* (E.g., CONTAINER, VERTICALITY, FORCE) and formulate the *Conceptual Metaphor*. E.g., For “душа нараспашку”: Image Schema = CONTAINER (OPEN); Conceptual Metaphor = SINCERITY IS OPENNESS / THE SELF IS AN OPEN CONTAINER.

### References

- [1] Shildrick, M., 2010. Some reflections on the socio-cultural and bioscientific limits of bodily integrity. *Body and Society*. 16(3), 11–22.
- [2] Maqsudova M.U., 2024. Exploring the Lexical-Semantic Features of Proverbs Based on Somatism in English and Uzbek Languages. *American Journal of Language, Literacy and Learning in STEM Education*. 2(4), 232–233.
- [3] Downey, G., 2010. ‘Practice without theory’: A neuroanthropological perspective on embodied learning. *Journal of the Royal Anthropological Institute*. 16(s1), 22–40. DOI: <https://doi.org/10.1111/j.1467-9655.2010.01608.x>
- [4] Küpers, W., 2013. Embodied transformative metaphors and narratives in organisational life-worlds of change. *Journal of Organizational Change Management*. 26(3), 494–528.
- [5] Gallese, V., 2005. Embodied simulation: From neurons to phenomenal experience. *Phenomenology and the Cognitive Sciences*. 4(1), 23–48. DOI: <https://doi.org/10.1007/s11097-005-4737-z>
- [6] Siswoyo, P.D., Nirmala, D., 2021. Semantics structure of Javanese proverbs: A natural semantic metalanguage analysis. *Anuva: Jurnal Kajian Budaya, Perpustakaan, dan Informasi*. 5(2), 275–281.
- [7] Mauss, M., 1973. Techniques of the body. *Economy and Society*. 2(1), 70–88. DOI: <https://doi.org/10.1080/03085147300000003>
- [8] Nurutdinova, A.R., 2024. Linguocultural and cognitive aspects of a Japanese proverb: Cultural-cognitive asymmetry. *Cognitive Studies of Language*. 5(61), 673–676. (in Russian)
- [9] Nurutdinova, A.R., 2025. Cognitive and Affective Aspects of the Japanese Paremiological Worldview. *Cognitive Studies of Language*. 2(63), 582–588. (in Russian)
- [10] Nurutdinova, A.R., 2025. The study on the splanchnonymic intelligibility of paremiological units in the Japanese and English languages. *Cognitive Studies of Language*. 1(62), 405–409. (in Russian)
- [11] Nurutdinova, A.R., 2025. Universal and Specific Linguistic and Cultural Features in Paremiological Units in Languages with Different Structures. *Upper Volga Philological Bulletin*. 1(40), 124–132. (in Russian)
- [12] Wolfgang, M., 2020. “No body is perfect” somatic aspects of modern American proverbs. *Eurasian Humanities Journal*. 1, 4–20.
- [13] Aleksandrova, O.V., Ahrenova, N.A., Bahtiozina, M.G., et al., 2023. *World Languages and Cultures as an Object of Philological Research*, 2nd ed. Federal State Unitary Enterprise. Academic Scientific Publishing, Production, Printing and Book Distribution Centre—Nauka: Moscow, Russia. (in Russian)



- [14] Pavlenko, A., 2002. Emotions and the body in Russian and English. *Pragmatics & Cognition*. 10(1–2), 207–241.
- [15] Rizzolatti, G., Craighero, L., 2004. The mirror-neuron system. *Annual Review of Neuroscience*. 27, 169–192. DOI: <https://doi.org/10.1146/annurev.neuro.27.070203.144230>
- [16] Rizzolatti, G., Fadiga, L., Gallese, V., et al., 1996. Premotor cortex and the recognition of motor actions. *Cognitive Brain Research*. 3(2), 131–141. DOI: [https://doi.org/10.1016/0926-6410\(95\)00038-0](https://doi.org/10.1016/0926-6410(95)00038-0)
- [17] Kee, H., 2025. From encountering foreign languages to the language of phenomenology: Merleau-Ponty and The Problem of Speech. *Continental Philosophy Review*. 58, 75–97. DOI: <https://doi.org/10.1007/s11007-025-09679-1>
- [18] Apresjan, J.D., 2008. *Systematic Lexicography*. Windle, K. (Trans.). Oxford University Press: Oxford, UK.
- [19] Bourdieu, P., 1977. *Outline of a Theory of Practice*. Nice R. (Trans.). Cambridge University Press: Cambridge, UK.
- [20] Oybekovna, B.M., 2024. Somatic phraseological phrases in lexicography. *Central Asian Journal of Literature, Philosophy, and Culture*. 5(6), 250–256.
- [21] Damasio, A.R., 1994. *Descartes' Error: Emotion, Reason, and the Human Brain*. Putnam: New York, NY, USA.
- [22] Dōgen, E., 2002. *The Heart of Dōgen's Shōbōgenzō*. Waddell, N., Abe, M. (Trans.). SUNY Press: Albany, NY, USA.
- [23] Elias, N., 1978. *The Civilizing Process*. Urizen Books: New York, NY, USA.
- [24] Minami, M., 2025. Advancements in Japanese linguistics: diverse perspectives. *Journal of Japanese Linguistics*. 41(2), 159–161. DOI: <https://doi.org/10.1515/jjl-2025-2009>
- [25] Fraleigh, S., 2010. *Butoh: Metamorphic Dance and Global Alchemy*. University of Illinois Press: Urbana, IL, USA.
- [26] Friday, K.F., Humitake, S., 1997. *Legacies of the Sword: The Kashima-Shinryu and Samurai Martial Culture*. University of Hawaii Press: Honolulu, HI, USA.
- [27] Gallagher, S., 2005. *How the Body Shapes the Mind*. Oxford University Press: Oxford, UK.
- [28] Gibbs Jr., R.W., 2006. *Embodiment and Cognitive Science*. Cambridge University Press: Cambridge, UK.
- [29] Daidoji, K., 2023. Treating emotion-related disorders in Japanese traditional medicine: Language, patients and doctors. *Cult Med Psychiatry*. 37(1), 59–80. DOI: <https://doi.org/10.1007/s11013-012-9297-4>
- [30] Goffman, E., 1967. *Interaction Ritual: Essays on Face-to-Face Behavior*. Pantheon Books: New York, NY, USA.
- [31] Kendon, A., 2004. *Gesture: Visible Action as Utterance*. Cambridge University Press: Cambridge, UK.
- [32] Husserl, E., 1989. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy: Second Book Studies in the Phenomenology of Constitution*. Kluwer: Dordrecht, Netherlands.
- [33] Seliverstova, E.I., 2020. Levels of Manifestation of Typological Similarity in Proverbs of Different Languages. *RUDN Journal of Language Studies, Semiotics and Semantics*. 11(2), 198–212. DOI: <https://doi.org/10.22363/2313-2299-2020-11-2-198-212>
- [34] Kubryakova, E.S., Demyankov, V.Z., Pankrats, J.G., et al., 1996. *A Brief Dictionary of Cognitive Terms*. Faculty of Philology, Moscow State University: Moscow, Russia. (in Russian)
- [35] Mafrukha, S., Firmansyah, D.B., Stovia, A., 2021. Animal elements on Japanese Kotowaza and the implementation of Japanese socio-cultural values: A cognitive linguistics point of view. *Japanese Research on Linguistics, Literature, and Culture*. 3(2), 141–156.
- [36] Lakoff, G., Johnson, M., 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. Basic Books: New York, NY, USA.
- [37] Leder, D., 1990. *The Absent Body*. University of Chicago Press: Chicago, IL, USA.
- [38] Diaz-Vera, J.E., 2024. Old English emotion is temperature: Cultural influences on a universal experience. *Russian Journal of Linguistics*. 28(1), 33–54. DOI: <https://doi.org/10.22363/2687-0088-34603>
- [39] Merleau-Ponty, M., 1968. *The Visible and the Invisible*. Lefort, C. (Ed.). Lingis, A. (Trans.). Northwestern University Press: Evanston, IL, USA.
- [40] Kövecses, Z., Benczes, R., Rommel, A., et al., 2024. Universality versus variation in the conceptualization of anger: A question of methodology. *Russian Journal of Linguistics*, 28(1), 55–79. DOI: <https://doi.org/10.22363/2687-0088-34834>
- [41] Matsuki, K., 1995. *Metaphors of anger in Japanese*. In: Taylor, J.R., MacLaury, R.E. (Eds.). *Language and the Cognitive Construal of the World*. De Gruyter Mouton: Berlin, Germany. pp. 137–152. DOI: <https://doi.org/10.1515/9783110809305.137>
- [42] Nabokov, I., 2000. *Religion against the Self: An Ethnography of Tamil Rituals*. Oxford University Press: New York, NY, USA.
- [43] Pesmen, D., 2000. *Russia and Soul: An Exploration*. Cornell University Press: Ithaca, NY, USA.
- [44] Ries, N., 1997. *Russian Talk: Culture and Conversation during Perestroika*. Cornell University Press: Ithaca, NY, USA.
- [45] Takashima T., 2000. *Comparative Dictionary of Japanese, English, German, and French Proverbs*. Hokuseido Shoten: Tokyo, Japan. (in Japanese)
- [46] Basova, T.A., 2020. General and specific features of Japanese phraseological units with the component hara ('belly') in comparison with Russian and English

- phraseological units. *Studia Germanica, Romanica et Comparatistica*. 16(3), 85–96. (in Russian)
- [47] Teliya, V.N., 2006. *Large Phraseological Dictionary of the Russian Language: Meaning, Usage, Culturological Commentary*. Ast-Press Kniga: Moscow, Russia. (in Russian)
- [48] Yamamoto, T., 2007. *Dictionary of Japanese and English Proverbs in Comparison*. Sōgensha henshūbu: Tokyo, Japan. (in Japanese)
- [49] Shonstrom, E., 2020. *The Wisdom of the Body: What Embodied Cognition Can Teach Us about Learning, Human Development, and Ourselves*. Rowman & Littlefield: Lanham, MD, USA.
- [50] Fan, X., 2023. Implementation of Japanese Sociocultural Values in Japanese Kotowaza: A Cognitive Linguistics Perspective. *Journal of Psycholinguistic Research*. 52, 1205–1219. DOI: <https://doi.org/10.1007/s10936-022-09930-3>
- [51] Bozhko, T., 2022. Sign and Symbolic Systems as Cultural Codes: Recognition and Interaction of Symbols. *Demiurge: Ideas, Technologies, Perspectives of Design*. 5(2), 171–187. DOI: <https://doi.org/10.31866/2617-7951.5.2.2022.266900> (in Ukrainian)
- [52] Teliya, V.N., 1996. *Russian Phraseology: Semantic, Pragmatic, and Linguocultural Aspects*. Languages of Russian Culture: Moscow, Russia. (in Russian)
- [53] Watsuji, T. (Ed.), 1996. *Watsuji Tetsurō's Rinrigaku: Ethics in Japan*. SUNY Press: Albany, NY, USA.
- [54] Wierzbicka, A., 1992. *Semantics, Culture, and Cognition: Universal Human Concepts in Culture-specific Configurations*. Oxford University Press: Oxford, UK.
- [55] Crossley, N., 2004. Ritual, body technique, and (inter)subjectivity. In: Schilbrack, K. (Ed.). *Thinking through Rituals*. Routledge: New York, NY, USA. pp. 31–51.