INTERNATIONAL JOURNAL OF SOCIETY, CULTURE & LANGUAGE

Proverbs Are Not Universal: Cultural Memory in Indonesian, Arabic, and Turkish Traditions

R. Yani'ah Wardani[1], Ade Solihat[2], Onok Yayang Pamungkas[3*], Siti Amsariah[1], Abdul Muta'ali[2], Asrina Asrina[4]

[1]Universitas Islam Negeri Jakarta, Indonesia, [2]Universitas Indonesia, Indonesia, [3]Universitas Muhammadiyah Purwokerto, Indonesia, [4]Universitas Islam Negeri Imam Bonjol, Indonesia

Abstract Proverbs are often described as universal moral formulas, but their diction emerges from local ecologies, historical memories, and mnemonic habits. This study proposes an Ecological-Cognitive-Mnemonic (ECM) framework for analysing how Indonesian, Arabic, and Turkish proverbs transform lived environments into cultural knowledge. The corpus was expanded to 90 proverbs, 30 from each language, across five family-resemblance clusters: humility, regret, preparedness, social compatibility, and collective memory. Using qualitative comparative content analysis, a coding manual, consultant validation, and consistent IJMES transliteration for Arabic items, the study shows that Indonesian proverbs privilege agrarian-maritime and ritual-natural signs, Arabic proverbs foreground desert-pastoral scarcity, named memory, celestial layering, and narrative compression, while Turkish proverbs emphasize steppe mobility, domestic pragmatism, lunar timing, and sonic repetition. The ECM framework provides a preliminary analytical lens for paremiology and cross-cultural pragmatics by explaining how comparable ethical concerns are encoded through culturally specific material, animal, historical, cosmological, and stylistic resources rather than interchangeable universal symbols or culturally neutral moral templates across traditions.

Keywords: *Proverbs, Cultural memory, Ecolinguistics, Cognitive metaphor, Cross-cultural pragmatics*

***Corresponding Author:**
Onok Yayang Pamungkas
onokyayangpamungkas@gmail.com

Received: March 23, 2026
Revised: May 29, 2026
Accepted: July 1, 2026
First Published: July 21, 2026

© 2026 Wardani, Pamungkas, Solihat, Amsariah, Muta'ali, and Asrina.
This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY).

1. Introduction

Proverbs are compact technologies of cultural memory. They condense recurrent experience into brief, repeatable, and socially authoritative utterances that can survive across generations. Folkloristic and paremiological studies have long shown that proverbs circulate as repositories of social wisdom, collective norms, and everyday judgement (Bronner, 2008; Hrisztova-Gotthardt & Varga, 2015; Norrick, 2011). Yet the moral force of a proverb does not reside only in its message. It also resides in the diction through which that message becomes thinkable: rice, rain, milk, wolf, horse, moon, tree, pot, sky, earth, or a remembered personal name. These lexical

https://doi.org/10.22034/ijscl.2026.2088352.4584

vehicles are not incidental ornaments. They index the ecological, social, historical, religious, and stylistic conditions through which a community recognises moral truth.

Previous proverb research has examined several elements. Paremiological studies treat proverbs as socially transmitted forms of collective knowledge and cultural memory (Bronner, 2008; Hrisztova-Gotthardt & Varga, 2015; Mieder, 2004; Norrick, 2011). Ecolinguistic and metaphor studies explain how environmental and material experience supplies source domains for moral reasoning (Kövecses, 2010; Stibbe, 2021), while comparative analyses show that animal imagery, semantic opposition, named narratives, and culturally sedimented diction vary across proverb traditions (Hassanein & Mahzari, 2021; Wardani, 2018; Yassin, 1988). Research has therefore addressed ecological imagery, zoomorphic meaning, socio-historical reference, cosmological symbolism, and formal memorability individually, but these strands have rarely been operationalised together to explain how a proverb becomes a durable unit of cultural memory. Three limitations consequently remain. First, most comparative studies are bilingual or tradition-specific. Second, they do not specify how environmental experience, animal-livelihood relations, remembered persons and places, ritual time, and mnemonic form interact within one auditable procedure. Third, labels such as humility, regret, and preparedness are often treated as equivalent meanings even when the culturally remembered images that authorise those meanings differ substantially across traditions.

To address these gaps, a three-way comparison across Indonesian, Arabic, and Turkish proverbs is undertaken because the three traditions offer a productive contrast in ecological experience, historical narration, ritual temporality, and mnemonic form. This three-way comparison therefore tests whether one operational framework can explain both shared ethical work and culturally specific routes of meaning without presuming universal symbolism. To conduct this comparison systematically, an operational framework is required. This study develops an Ecological-Cognitive-Mnemonic (ECM) framework as an operational adaptation of paremiology and cultural-cognitive approaches. The framework organises analysis through five connected components which are combined through a single cultural-memory logic: ecological and animal signs provide culturally available experiential material; socio-historical and cosmological signs anchor that material in shared narratives and temporal orders; and mnemonic-stylistic form makes the resulting judgement repeatable across generations. The components are therefore not five unrelated theories but five analytically connected routes through which lived experience is selected, culturally authorised, compressed, and transmitted. Its novelty lies not in claiming a new universal theory, but in providing a transparent procedure for tracing how culturally available materials become moral evidence and how that evidence is made memorable. The study consequently contributes a replicable coding logic for comparative paremiology and a culturally sensitive account of proverbial meaning for cross-cultural pragmatics. For this reason, the study has three objectives. First, it identifies how Indonesian, Arabic, and Turkish proverbs encode comparable ethical concerns through culturally specific diction. Second, it operationalises the five ECM components as coding questions and decision rules. Third, it evaluates the explanatory usefulness and limits of the framework through a purposive corpus of 90 proverbs, source verification, native-speaker consultation, and documented resolution of borderline cases. These objectives are significant because they replace impressionistic symbol comparison with an auditable analytical procedure and clarify why apparently equivalent proverbs may not be pragmatically or culturally interchangeable in translation, teaching, and intercultural communication.

2. Theoretical Framework

The ECM framework is anchored in two complementary traditions: paremiology and ecolinguistics. Paremiology explains why proverbs function as concise, socially circulated forms of inherited knowledge, while ecolinguistics explains why particular environments and material relations become recurrently salient in language (Bronner, 2008; Hrisztova-Gotthardt & Varga, 2015; Mieder, 2004; Norrick, 2011; Stibbe, 2021). Together, these traditions support the central premise of ECM: proverbial diction converts recurrent experience into culturally memorable moral knowledge. From this dual foundation, five distinct but interconnected analytical components emerge, each addressing a different dimension of how proverbs encode and transmit cultural memory.

Within this anchor, ecological cognition identifies environmental, agricultural, climatic, spatial, and material processes that provide a principal route to moral reasoning. Comparative proverb studies have shown that culturally familiar objects and ecological conditions constrain lexical selection and interpretation (Hassanein & Mahzari, 2021; Wardani, 2018). Cognitive metaphor is used here as a supporting explanation for the mapping from concrete scenes to abstract judgement, rather than as an independent foundation of the framework (Kövecses, 2010; Lakoff & Johnson, 1980). While ecological cognition addresses the physical surroundings that shape moral schemas, a second component shifts focus to the living beings that populate those surroundings, specifically, how animals come to embody social-psychological meaning. Zoomorphic identity concerns cases in which an animal carries the proverb's social-psychological meaning and preserves knowledge of livelihood, danger, endurance, belonging, or reputation. This component is not based on universal animal symbolism. It asks how a particular speech community remembers human-animal relations and converts them into social judgement.

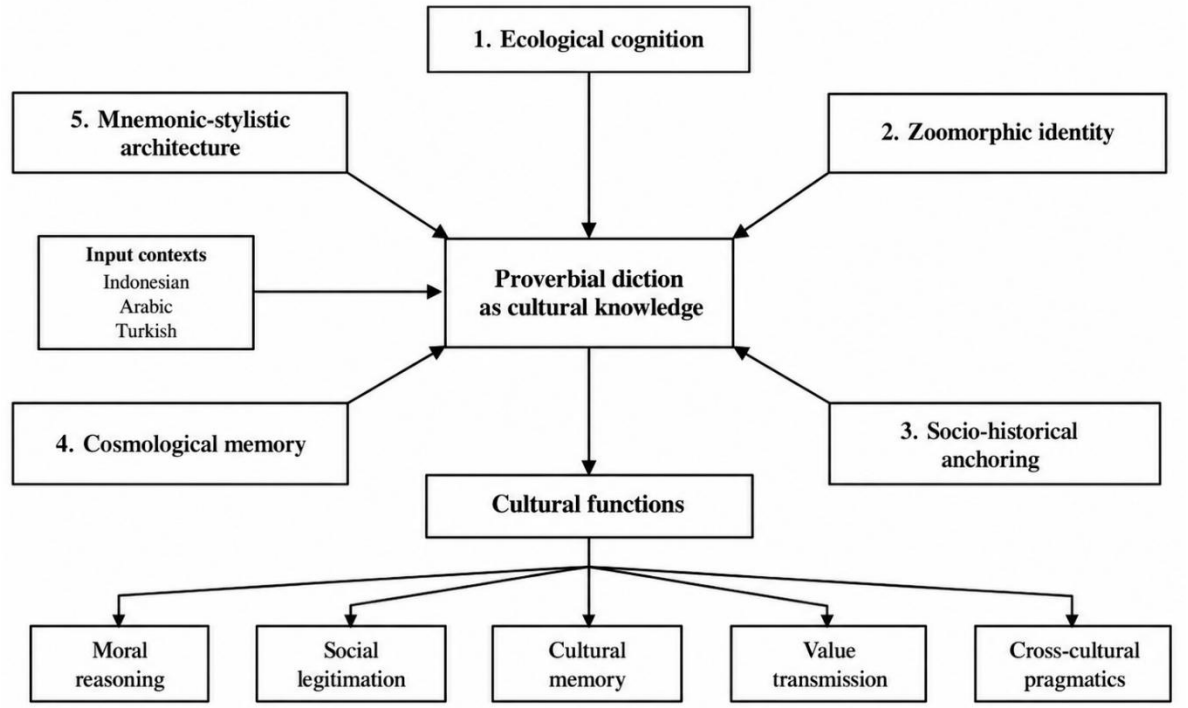
Beyond the animal world, however, proverbs also draw on distinctly human markers of time and place, which form the basis of the next component. Socio-historical anchoring identifies proper names, places, events, social roles, and domestic objects that authorise proverbial meaning through shared historical or everyday memory. Arabic amthāl, for example, frequently compress a wider narrative into a personal name or remembered event (Yassin, 1988), whereas other traditions may prefer place-based, ritual-natural, or domestic evidence. Yet memory in proverbs is not confined to human history alone; it also extends to the cosmic and the sacred, which constitute a fourth dimension of analysis. Cosmological memory concerns celestial, vertical-natural, theological, and ritual-time signs that organise moral hierarchy or communal temporality. It is distinguished from ordinary weather imagery: a celestial sign is coded cosmologically only when it regulates ritual time, religious accountability, or a vertical moral order.

Having addressed the content of what is remembered, whether ecological, zoomorphic, socio-historical, or cosmological, the framework next turns to the formal means by which such content is made memorable. Mnemonic-stylistic architecture concerns the formal resources that enable cultural knowledge to persist, including rhyme, repetition, parallelism, contrast, ellipsis, and narrative compression. The component is included because cultural memory requires not only meaningful content but also a form that can be recalled, repeated, and transmitted (Hymes, 2013; Mieder, 2004). With all five components thus articulated, it remains to clarify how they operate in relation to one another, rather than as isolated categories. The five components are relational rather than sequential. A proverb may activate more than one component, but the dominant component is the route without which its principal cultural force would be lost. Secondary codes record supporting routes. This logic permits the framework to identify counter-patterns and hybrid cases instead of forcing each tradition into a single cultural profile.

To operationalize this relational logic in practice, the framework is translated into a systematic analytical procedure that guides data collection, interpretation, and evaluation. The developed model (Figure 1) represents a recursive analytical process. Input contexts provide the linguistic-cultural material from which proverbial diction is selected; the one-way movement toward diction indicates that contextual evidence informs interpretation rather than being mechanically produced by the proverb. The five ECM components then identify distinct but potentially co-occurring routes of meaning. Their interaction is tested through repeated movement among textual evidence, source documentation, and consultant explanation. The cultural functions shown below the model are analytical outcomes: moral reasoning concerns the ethical inference produced; social legitimation concerns the authority through which that inference is validated; cultural memory concerns the preservation of shared events and schemas; value transmission concerns intergenerational circulation; and cross-cultural pragmatics concerns the consequences of non-equivalent lexical choices across languages. The following sections report how each component operates in the corpus and evaluate the cultural-memory functions generated by their interaction.

Figure 1

Theoretical Model of the Ecological-Cognitive-Mnemonic (ECM) Framework



3. Methodology

3.1. Corpus

This study used an expanded purposive comparative corpus of 90 proverbs: 30 Indonesian, 30 Arabic, and 30 Turkish. Appendix A provides a shortened item-level corpus list. To meet the required word limit, it retains the 90 codes, representative proverb forms/translations, and primary ECM markers, while removing repeated cultural commentaries. The full working matrix retained by the authors includes source notes, consultant comments, and detailed code justification.

The corpus was balanced across five family-resemblance clusters: humility, regret or irreversibility, preparedness, social compatibility, and collective memory. These clusters were derived iteratively from the recurrent ethical functions represented in the source collections and confirmed during consultant review, rather than adopted as culturally identical universals. Each cluster contained 18 items, comprising six proverbs from each language. The labels serve only as comparative entry points: they group proverbs that perform broadly comparable ethical work while allowing their lexical vehicles and pragmatic implications to remain culturally distinct. This clustering structure was then applied uniformly across languages, yielding a symmetrical design that facilitated systematic cross-linguistic comparison.

To ensure that the corpus was not merely large but also analytically meaningful, the items were organised thematically around recurrent ethical concerns that cut across the three language traditions. The corpus contained 90 items, with 30 proverbs from each language and six items from each language in every family-resemblance cluster. This balanced design increased within-cluster variation while keeping the corpus small enough for item-level source checking, translation review, coding, and documented adjudication. Because selection was purposive rather than probabilistic, the counts describe only this corpus and are not prevalence estimates for the complete proverb inventories of the three languages.

The Indonesian corpus was compiled from Wardani (2018) and established standard forms cross-checked in Indonesian proverb dictionaries; the Arabic items were drawn from Yassin (1988),

Hassanein and Mahzari (2021), and source-attested amthāl recorded in the same matrix; and the Turkish corpus was checked against the *Atasözleri ve Deyimler Sözlüğü* [Dictionary of Proverbs and Idioms] (Türk Dil Kurumu, n.d.). The working matrix records the exact source or dictionary entry for each item, its original form, literal translation, contextual meaning, consultant judgement, and coding rationale.

The study does not treat Indonesian, Arabic, and Turkish as homogeneous linguistic systems. Indonesian selections were restricted to widely circulated standard Indonesian proverbs, although regional influences such as Malay, Javanese, Minangkabau, and ritual-natural symbolism remain relevant to interpretation. Arabic selections were restricted to source-attested amthāl with broad recognition, while acknowledging that Egyptian, Saudi, Levantine, Maghrebi, Gulf, and classical usages may vary. Turkish selections were restricted to widely recognisable standard Turkish proverbs, while acknowledging Anatolian and regional variation. The findings therefore apply to the selected comparative corpus and not to the total proverb inventories of the three languages.

3.2. The Inclusion Criteria and the ECM Coding Procedure

Corpus inclusion and ECM coding were conducted as two distinct phases. During inclusion, an item had to (1) be attested in a named source and recognised by consultants as culturally intelligible, (2) perform one of the five family-resemblance functions without requiring an idiosyncratic interpretation, and (3) permit comparison at the level of broadly comparable ethical work. During coding, analysts identified the lexical vehicle carrying the moral force and tested whether it could be assigned to ecological cognition, zoomorphic identity, socio-historical anchoring, cosmological memory, or mnemonic-stylistic architecture. The presence of an ECM marker was not used as an exclusion criterion. Items without a sufficiently clear route were retained provisionally as unclassifiable so that the framework's boundaries could be tested; no final corpus item remained unclassifiable after source and consultant adjudication.

Following those inclusion decisions, each retained proverb was coded with the manual in Table 1. The five codes are the five components of the ECM model, while the diagnostic questions operationalise the theoretical premises described above. Analysts first identified the family-resemblance function, then located the lexical vehicle carrying the moral force, assigned a dominant and, where necessary, a secondary ECM component, and finally checked that decision against the source record and consultant explanation.

Table 1
ECM Coding Manual and Decision Rules

ECM code	Diagnostic question	Primary evidence	Borderline decision rule	Illustrative case
Ecological cognition	Does the proverb use an environmental, agricultural, climatic, spatial, or material process as the main route to moral reasoning?	Plant, water, rain, heat, milk, tree, earth, sky, river, sea, field, seasonal or spatial threshold.	If the environmental sign is only background and another sign carries the moral force, code the other dominant dimension.	*Nasi telah menjadi bubur* [Rice has become porridge] is ecological-cognitive because food transformation supplies the model of irreversibility.
Zoomorphic identity	Does an animal carry the social-psychological meaning or livelihood memory of the proverb?	Animal behaviour, animal ecology, human-animal relation, endurance, loyalty, predation, belonging, reputation.	If the animal merely appears as an accessory to a named event or story, code socio-historical anchoring as dominant and zoomorphic identity as secondary.	*Aṣbaru min jamal* [As patient as a camel] is zoomorphic because the camel encodes endurance under desert-pastoral conditions.

ECM code	Diagnostic question	Primary evidence	Borderline decision rule	Illustrative case
Socio-historical anchoring	Does the proverb authorise moral judgement through a remembered person, place, event, social role, or domestic object?	Proper name, place name, named event, domestic tool, household object, social-role memory.	If a place functions mainly as ecological space, code ecological cognition; if it functions as a remembered threshold, code socio-historical anchoring.	*Atı alan Üsküdar'ı geçti* [The opportunity has already passed.] is socio-historical and ecological-spatial because Üsküdar marks an irreversible mobility threshold.
Cosmological memory	Does the proverb use celestial, vertical-natural, or ritual-time imagery to organise moral or religious temporality?	Moon, sun, star, sky, earth, light, darkness, fasting, Eid, height, disappearance, fate-like temporal signs.	If a celestial sign functions only as ordinary weather, code ecological cognition; if it regulates ritual or vertical moral order, code cosmological memory.	*Ay gör oruç tut, ay gör bayram eyle* [When the moon is sighted, fasting begins] is cosmological because lunar sighting synchronises ritual time.
Mnemonic-stylistic architecture	Is the proverb memorable mainly because of rhyme, repetition, parallelism, contrast, compression, or narrative shorthand?	Alliteration, rhyme, repeated words, binary opposition, parallel clauses, proper-name compression, ellipsis.	If the form merely supports another dominant code, treat style as secondary; if memory depends on the form, code it as dominant or co-dominant.	*Sakla samanı, gelir zamanı* [Save even the straw; it may be useful one day] is mnemonic-stylistic because rhyme stabilises the moral instruction to preserve resources.

The coding sequence followed a decision-tree logic. First, the analyst identified the family-resemblance cluster, meaning a group of proverbs that perform broadly comparable ethical work without being treated as semantically identical. Second, the lexical vehicle carrying the moral force was located. Third, a dominant ECM component and, when necessary, a secondary component were assigned. The dominant component was the route without which the proverb would lose its principal cultural force. Finally, the decision was checked against the source record and the consultant's explanation. This procedure corresponds to the five analytical routes shown in Figure 1.

3.3. Validation Procedure, Documentation, and Transliteration

Validation was conducted in four stages, with stages 1-2 occurring during initial corpus construction, stage 3 during preliminary coding, and stage 4 during final adjudication. First, all 90 items were checked against cited sources or documented standard circulation. Second, translations and interpretations were reviewed by six adult native-speaker consultants, two for each language. All held at least a bachelor's degree; their fields included linguistics, language education, literature, Arabic studies, and Turkish studies. Third, they evaluated recognisability, literal meaning, contextual meaning, cultural connotation, and regional restriction during preliminary coding. Fourth, disagreements were resolved through source evidence, translation notes, consultant explanations, and the decision rules in Table 1. Decisions were documented to support credibility, dependability, and confirmability (Miller & Brewer, 2015; Schwandt, 2007).

The Arabic transliteration system was standardised using a simplified IJMES-based format throughout the manuscript. Long vowels are represented as ā, ī, and ū; ʿayn is represented as ʿ; hamzah as ʾ; and emphatic consonants such as ṣ, ḍ, ṭ, and ẓ are marked where relevant. The Arabic definite article is consistently rendered as al- even before sun letters in transliteration, unless the expression is cited in a conventional fixed form. This decision was made to avoid mixing different transliteration styles and to make the Arabic examples more consistent for readers who do not read Arabic script.

4. Results

The results are organised according to the five ECM dimensions. The presentation separates descriptive data from interpretive comparison. Each table reports motif occurrence within the selected 90-proverb corpus only. The counts are descriptive, not statistical, because the corpus is purposive and balanced rather than random. No chi-square test or inferential significance is claimed.

4.1. Ecological Cognition

The first pattern concerns the ecological materials through which moral concepts become cognitively accessible. In the selected corpus, Indonesian items most frequently use tropical agrarian-maritime signs; Arabic items rely on desert-pastoral and scarcity-based imagery; and Turkish items combine steppe mobility, botanical experience, domestic materiality, and Ottoman spatial memory. Table 2 reports the dominant ecological motifs and representative evidence.

Table 2
Ecological-Cognitive Mapping of Proverbial Diction in Indonesian, Arabic, and Turkish

Language	Dominant marker	Corpus frequency	Representative evidence	Cultural-memory function
Indonesian	Rice, porridge, rain, water, earth, sky, areca nut, river/fish habitat, field, wind, stone, bamboo/root.	23/30	• Seperti padi, makin berisi makin merunduk [Like rice, the fuller it becomes, the more it bows] • Nasi telah menjadi bubur [The rice has become porridge] • Sedia payung sebelum hujan [Prepare the umbrella before the rain] • Di mana bumi dipijak, di situ langit dijunjung [Where the earth is stepped on, there the sky is upheld].	Agrarian-maritime images preserve cultural memory of humility, regret, preparedness, adaptation, and social harmony.
Arabic	Milk, summer heat, quiver, tree, wolf, dog, camel, wind, fire, water, stone, celestial signs.	21/30	• Al-ṣayfa ḍayyaʿti al-laban [In summer, you wasted the milk] • Qabla al-rimāʾ tumlaʾ al-kinān [Before shooting, the quivers are filled] • Aṣbaru min jamal [More patient than a camel] • Al-waqt ka-l-sayf [Time is like a sword].	Scarcity, timing, humility, endurance, regret, preparedness, and vigilance are remembered through desert-pastoral and material experience.
Turkish	Fruit tree, horse, Üsküdar, moon, neighbour/ash, pot/lid, blanket, straw, river, field, domestic materials.	20/30	• Ağaç meyvesi olunca başını aşağı salar [When the tree bears fruit, it lowers its head]; • Atı alan Üsküdar'ı geçti [The one who took the horse has passed Üsküdar]; • Ay gör oruç tut, ay gör bayram eyle [See the moon, fast; see the moon, celebrate Eid].	Mobility, productive maturity, humility, regret, preparedness, ritual timing, and practical social life are preserved through Anatolian-spatial and domestic memory.

The comparison becomes clearer when the same ethical functions are traced across all three traditions. Humility is encoded through the bowing rice plant in Indonesian, the bending tree and restraint in Arabic, and the fruit-bearing tree or contrast between fullness and noise in Turkish. Regret is represented through irreversible food transformation in Indonesian, wasted milk or belated action in Arabic, and a horse that has already crossed a decisive threshold in Turkish. Preparedness is linked to rain and umbrellas in Indonesian, quivers, wind, and vigilance in Arabic, and stored straw, savings, or risk avoidance in Turkish. The relevant comparison is therefore function-to-function across languages, not a claim that every function is represented by the same type of image

4.2. Zoomorphic Identity

The second pattern concerns animal diction. Animal symbols occur in all three languages, but their functions differ according to livelihood ecology and social psychology. Table 3 distinguishes the specific function of each animal rather than reducing each language to a general animal code.

Table 3
Zoomorphic Identity Matrix in Indonesian, Arabic, and Turkish Proverbs

Language	Animal code	Corpus frequency	Representative evidence	Cultural-memory function
Indonesian	Chicken/ chick	3/30	• Seperti ayam kehilangan induk [Like a chick that has lost its mother]; • Ayam bertelur di atas padi, mati kelaparan [A chicken lays eggs on rice yet dies of hunger].	Dependency, confusion, household vulnerability, and agrarian irony; the chicken can represent dependence or failure to recognise available resources. As cultural memory, the animal condenses recurrent livelihood and social experience.
Indonesian	Fish and aquatic life	3/30	• Bagai ikan pulang ke lubuk [Like a fish returning to its deep pool]; • Ada udang di balik batu [There is a shrimp behind the stone].	Belonging, ecological fit, return to proper place, and hidden intention in aquatic/riverine settings. As cultural memory, the animal condenses recurrent livelihood and social experience.
Indonesian	Elephant and tiger	2/30	• Gajah mati meninggalkan gading, harimau mati meninggalkan belang [An elephant leaves its tusks; a tiger leaves its stripes].	Reputation and legacy; the dead animal leaves a public trace that becomes collective memory. As cultural memory, the animal condenses recurrent livelihood and social experience.
Arabic	Wolf	3/30	• al-dhiʾb lā yughyiru shaʿrahu wa-lā ʿādatahu [The wolf changes neither its hair nor its habit].	Fixed the predatory character and suspicion toward moral change. As cultural memory, the animal condenses recurrent livelihood and social experience.
Arabic	Dog	2/30	• Jawwiʿ kalbaka yattabiʿka [Starve your dog and it will follow you].	Conditional loyalty under deprivation and control. As cultural memory, the animal condenses recurrent livelihood and social experience.
Arabic	Camel	4/30	• Aṣbaru min jamal [More patient than a camel].	Endurance, patience, desert-pastoral resilience, and survival under scarcity. As cultural memory, the animal condenses recurrent livelihood and social experience.
Turkish	Horse	5/30	• Atı alan Üsküdar'ı geçti [The one who took the horse has passed Üsküdar].	Speed, mobility, distance, timing, and lost opportunity. As cultural memory, the animal condenses recurrent livelihood and social experience.
Turkish	Other animals	3/30	• Dereyi görmeden paçayı sıvama is not animal-based, but appears in the same mobility-risk cluster; animal items were coded only when an animal carried the moral force.	Caution, social judgement, and practical wisdom in household or rural settings. As cultural memory, the animal condenses recurrent livelihood and social experience.

Table 3 prevents an overly general claim such as Indonesian equals chicken and fish, Arabic equals wolf and camel, and Turkish equals horse. The functions are more specific. In Indonesian, the chicken marks dependency or irony, the fish marks ecological belonging, and the elephant-tiger pair marks public legacy. In Arabic, the wolf, dog, and camel encode suspicion, conditional loyalty, and endurance. In Turkish, the horse primarily encodes mobility and belatedness. Zoomorphic diction is therefore a cultural archive of livelihood adaptation, not a universal animal symbolism.

4.3. Socio-Historical Anchoring

The third pattern concerns how moral authority is legitimised. The selected Arabic proverbs frequently use remembered names and events; Turkish proverbs often ground judgement in domestic-pragmatic objects or place-based thresholds; Indonesian proverbs tend to use ritual-natural or indirect symbolic evidence. Table 4 reports this distribution and clarifies that the Indonesian claim is corpus-based rather than absolute.

Table 4
Socio-Historical Anchoring in Indonesian, Arabic, and Turkish Proverbs

Tradition	Dominant marker	Corpus frequency	Representative evidence	Cultural-memory function
Arabic	Named figures, remembered events, and compressed narratives.	8/30	• Wāfaqa Shannun Ṭabaqah [Shannun matched Tabaqah]; • Mawāʿīd ʿUrqūb [The promises of ʿUrqūb]; • Mā yawmu Ḥalīmah bi-sirr [The day of Ḥalīmah is no secret].	Moral judgement is authorised through historical-personal memory and culturally recognisable narrative compression. This anchor functions as a culturally recognised source of remembered authority.
Turkish	Domestic objects, spatial routes, and practical fit.	9/30	• Tencere yuvarlanmış kapağını bulmuş [The pot rolled and found its lid]; • Boş teneke çok ses çıkarır [An empty can makes much noise]; • Atı alan Üsküdar'ı geçti [The one who took the horse has passed Üsküdar].	Social truth is grounded in functional fit, sensory evidence, mobility, and everyday practicality. This anchor functions as a culturally recognised source of remembered authority.
Indonesian	Ritual-natural objects and indirect symbolic mediation.	0/30	• Bagai pinang dibelah dua [Like an areca nut split in two]; • Di mana bumi dipijak, di situ langit dijunjung [Where the earth is stepped on, there the sky is upheld]; • Berat sama dipikul, ringan sama dijinjing [Heavy burdens are carried together; light ones are lifted together].	Moral judgement is mediated through symbolic symmetry, tact, adaptation, and communal balance rather than named individuals. This anchor functions as a culturally recognised source of remembered authority.

The evidence does not claim that Indonesian proverbs never use proper names. It makes a narrower corpus-based claim: none of the 30 selected Indonesian items relies on personal-name anchoring, while many rely on natural, ritual, or collective-action imagery. Arabic, by contrast, uses names as condensed moral archives. Turkish relies more heavily on practical and domestic evidence. These differences show that proverbs do not only state moral claims; they also encode culturally preferred sources of proof.

4.4. Cosmological Synchronisation

The fourth pattern concerns cosmological diction. Arabic proverbs in the corpus use celestial, vertical, and theological signs to frame moral hierarchy, impermanence, and accountability; the representative

item *Fawqa kulli dhī ʿilmin ʿalīm* [Above every knower is one who knows more] makes this vertical ordering explicit. Turkish lunar diction, as in *Ay gör oruç tut, ay gör bayram eyle* [See the moon, fast; see the moon, celebrate Eid], synchronises communal ritual time. Indonesian expressions such as *Di mana bumi dipijak, di situ langit dijunjung* [Where the earth is stepped on, there the sky is upheld] moralise natural space as adaptation and social order. Table 5, therefore, distinguishes cosmological memory from ordinary weather imagery by asking whether the sign regulates ritual time, religious accountability, or a vertical moral order.

Turkish lunar diction works differently. *Ay gör oruç tut, ay gör bayram eyle*, turns the moon into a communal regulator of ritual time. The celestial body functions as an observational sign that synchronises fasting, celebration, calendar, and communal discipline. Indonesian cosmological-natural diction is more ecological and normative. *Di mana bumi dipijak, di situ langit dijunjung* turns earth and sky into a moral grammar of place and adaptation, while *Sedia payung sebelum hujan* converts climate into preventive temporality. The contrast is therefore not simply religious versus non-religious: Arabic layers celestial memory, Turkish synchronises lunar ritual time, and Indonesian moralises natural space.

Table 5
Cosmological Memory in Indonesian, Arabic, and Turkish Proverbs

Language	Dominant marker	Corpus frequency	Representative evidence	Cultural-memory function
Indonesian	Earth, sky, rain, and natural order	4/30	• Di mana bumi dipijak, di situ langit dijunjung [Where the earth is stepped on, there the sky is upheld]	Natural space is moralised as adaptation, preparedness, and social order. Weather imagery is coded ecological unless it organises vertical or normative order.
Arabic	Celestial, vertical, and theological signs	5/30	• Fawqa kulli dhī ʿilmin ʿalīm [Above every knower is one who knows more]	Cosmological imagery frames moral hierarchy, impermanence, and religious accountability. Agrarian or animal images remain ecological or zoomorphic unless celestial order carries the moral force.
Turkish	Moon and ritually observed time	3/30	• Ay gör oruç tut, ay gör bayram eyle [See the moon, fast; see the moon, celebrate Eid]	Lunar observation synchronises communal fasting, celebration, and ritual temporality. The moon is cosmological when it regulates ritual time, not when it functions as ordinary weather imagery.

4.5. Mnemonic-Stylistic Architecture

The fifth pattern concerns how proverbial form carries cultural memory across generations. As shown in Table 6, Indonesian items rely principally on semantic parallelism and binary balance, Arabic items on narrative-causal compression and proper-name shorthand, and Turkish items on rhyme, repetition, and phonological echo. Turkish examples such as *Sakla samanı, gelir zamanı, Üzüm üzüme baka baka kararır,* and *Komşu komşunun külüne muhtaçtır* depend on rhyme, repetition, and phonological echo. Indonesian examples such as *Di mana bumi dipijak, di situ langit dijunjung* and *Berat sama dipikul, ringan sama dijinjing* use semantic parallelism, binary balance, and embodied action. Arabic examples such as *Jawwiʿ kalbaka yattabiʿka, Mawāʿīd ʿUrqūb,* and *Mā yawmu Ḥalīmah bi-sirr* condense causal logic or a wider narrative world into a short clause, name, or event marker.

The collective-memory cluster clarifies the title of the article. Indonesian data encode memory through legacy, collective burden, homeland attachment, and public trace. Arabic data rely more on named events and remembered figures, such as ʿUrqūb and Ḥalīmah, which activate shared stories of deception, publicity, reliability, and honour. Turkish data carry memory through rhythm, neighbourly

dependence, practical preservation, and communal survival, especially in proverbs on neighbours, stored straw, and ritual timing.

Table 6
Mnemonic-Stylistic Architecture across the Three Traditions

Language	Dominant marker	Corpus frequency	Representative evidence	Cultural-memory function
Indonesian	Semantic parallelism and binary balance	18/30	• Berat sama dipikul, ringan sama dijinjing [Heavy burdens are carried together; light ones are lifted together].	Balanced clauses stabilise communal values through embodied and easily recalled symmetry.
Arabic	Narrative-causal compression and proper-name shorthand	16/30	• Mawāʿīd ʿUrqūb [The promises of ʿUrqūb]; • Jawwiʿ kalbaka yattabiʿka [Starve your dog and it will follow you].	Compressed names and causal clauses activate shared stories and transmit remembered judgement.
Turkish	Rhyme, repetition, and phonological echo	19/30	• Sakla samanı, gelir zamanı [Save the straw; its time will come]; • Üzüm üzüme baka baka kararır [A grape darkens by looking at another grape].	Sonic recurrence supports recall and intergenerational transmission of practical knowledge.

The comparative point is that style is not secondary to meaning. Turkish sound patterning stabilises memory through rhythm; Indonesian balance does so through semantic symmetry and embodied clarity; and Arabic compression depends on culturally shared narrative literacy. ECM therefore treats stylistics as mnemonic architecture, not merely aesthetic form.

4.6. Synthesis: The Ecological-Cognitive-Mnemonic Matrix

Table 7 synthesises the preceding findings by connecting the five ECM dimensions with concrete corpus patterns. It shows how Indonesian, Arabic, and Turkish proverbs convert lived experience into transmissible moral knowledge through different but comparable semiotic systems.

Table 7
Synthesised ECM Matrix of Indonesian, Arabic, and Turkish Proverbial Diction

ECM dimension	Indonesian	Arabic	Turkish	Comparative implication
ECM component	Tropical agrarian-maritime ecology: rice, rain, water, earth, sky, areca nut, fish habitat.	Desert-pastoral and arid ecology: milk, heat, quiver, camel, tree, wind, fire.	Anatolian-steppe and Ottoman spatial ecology: horse, Üsküdar, fruit tree, moon, straw, blanket.	Environment shapes the available source domains of moral reasoning.
Zoomorphic identity	Chicken = dependency/irony; fish = belonging; elephant/tiger = reputation and legacy.	Wolf = fixed suspicion; dog = conditional loyalty; camel = endurance.	Horse = speed, distance, timing, and lost opportunity.	Animal diction indexes livelihood and social psychology, not universal animal meanings.

ECM dimension	Indonesian	Arabic	Turkish	Comparative implication
Socio-historical anchoring	No personal-name anchoring in the selected 30 items; moral authority is mediated through natural, ritual, and collective-action signs.	Strongly productive: names and events condense moral stories.	Less personal-name based; practical objects and place references dominate.	Moral authority may be grounded in persons, objects, places, or indirect symbols.
Cosmological memory	Ecological-natural order: earth, sky, rain, water, and vertical adaptation.	Layered celestial memory resemanticised through literary and Islamic frames.	Lunar observation synchronised with Islamic ritual time.	Cosmological diction connects moral meaning with place, fate, ritual, and communal temporality.
Mnemonic-stylistic architecture	Semantic parallelism, binary balance, embodied contrast.	Narrative-causal compression, proper names, event markers.	Alliteration, repetition, rhyme, sonic echo.	Stylistic form is the memory infrastructure of proverbial knowledge.

The synthesis shows why ECM must remain comparative and probabilistic rather than universalist. The selected traditions display dominant tendencies, but no tradition is internally uniform: Arabic includes agrarian and avian imagery, Indonesian includes domestic and historical traces, and Turkish includes ecological as well as pragmatic forms. ECM accommodates this variation by coding each proverb individually and treating tradition-level patterns as corpus tendencies, not essential cultural properties.

5. Discussion

The first objective was to identify how comparable ethical concerns are encoded through culturally specific diction. The findings show that ecological availability is influential but not deterministic. Indonesian agrarian-maritime imagery, Arabic scarcity and named-memory patterns, and Turkish mobility and domestic pragmatism are corpus tendencies, not exhaustive cultural inventories. Counter-patterns are analytically important: *al-ṭuyūr ʿalā ashkālihā taqaʿ* [Birds settle with their own kind] is an Arabic zoomorphic-ecological proverb that cannot be reduced to desert-pastoral scarcity. ECM accommodates such cases by coding individual items and permitting dominant and secondary components, thereby treating within-tradition variation as evidence rather than as a failure of the model (Kövecses, 2010; Stibbe, 2021). This approach reveals that even within a single tradition, proverbs draw on multiple ecological and mnemonic resources, preventing reductive characterisations of any language's proverb repertoire.

The second objective was to operationalise the five components. Compatibility illustrates the value of this procedure: *Bagai pinang dibelah dua* [Like an areca nut split in two] invokes ritual-natural symmetry; *Wāfaqa Shannun Ṭabaqah* [Shannun matched Tabaqah] activates remembered personal narrative; and *Tencere yuvarlanmış kapağını bulmuş* [The pot rolled and found its lid] relies on domestic-pragmatic fit. The same ethical function is therefore authorised through different cultural memories. This coding logic ensures that each proverb is assessed on its own terms rather than forced into a predetermined cultural profile. The diagnostic questions in Table 1 provide transparent decision rules that distinguish, for instance, cosmological memory from mere weather imagery or socio-historical anchoring from incidental place naming. Consequently, the ECM framework offers an auditable trail from textual evidence to interpretive conclusion, making cross-cultural comparison systematic rather than speculative.

The third objective was to evaluate the framework's usefulness and limits. ECM is useful because it makes these interpretive routes explicit, but it cannot by itself capture every interactional use, ironic performance, regional variant, or historically changing meaning. Its strength lies in providing

systematic coding decisions grounded in source verification and consultant validation, replacing impressionistic symbol-reading. However, the framework operates at the level of diction and cultural memory encoded in proverb forms, and therefore cannot fully account for pragmatic variation in actual speech events, where proverbs may be deployed ironically or adapted to new contexts. These limitations delimit ECM's appropriate application to comparative textual analysis and cultural documentation, while interactional and diachronic questions require complementary methodologies.

These findings have practical implications. Translators should not assume that a proverb with a similar moral lesson has an equivalent pragmatic force, because the source image may activate a different cultural memory. In intercultural communication and language teaching, comparing the remembered evidence behind proverbs can prevent literal equivalence from being mistaken for cultural equivalence. For cultural preservation, the item-level matrix documents not only wording but also the environmental, historical, ritual, and mnemonic knowledge that makes each proverb intelligible.

The principal contribution of this study is methodological and provisional. Within this corpus, ECM offers a preliminary analytical vocabulary for examining how proverb diction may store, legitimise, and transmit cultural knowledge; it does not establish that the five components exhaust all proverbial meaning or operate identically in other datasets. This caution is necessary because cultural linguistics and cross-cultural pragmatics require attention to distributed cultural schemas, contextual usage, and communicative variation rather than isolated lexical equivalence (Goddard, 2006; Palmer, 1996; Sharifian, 2017). In translation, the framework can alert translators to lexical vehicles whose pragmatic force cannot always be preserved by literal substitution. In intercultural communication and language teaching, it can support the comparison of the cultural evidence behind apparently similar moral expressions, particularly because interpretation and learning are shaped by linguistic mediation, cultural interpretation, and cognitive reasoning (Sholeh et al., 2026). In cultural preservation, the item-level matrix can document the ecological, historical, and mnemonic knowledge embedded in proverb collections, while also aligning with broader arguments that cultural memory is sustained through archive-making, circulation, and reinterpretation across media and communities (Sudigdo & Suprapto, 2026). These applications remain proposals for subsequent empirical testing rather than demonstrated outcomes of the present study.

The study has several limitations that constrain interpretation. The corpus is purposive, balanced, and analytically selected, so motif counts cannot represent population frequencies. Indonesian, Arabic, and Turkish comprise internally diverse linguistic-cultural fields, and regional, dialectal, sectarian, class-based, and genre-based variation may yield different patterns. Consultant validation improves interpretive credibility but does not substitute for naturally occurring discourse data or a larger inter-coder reliability study. This limitation is especially relevant because recent cross-cultural language studies have shown that politeness, metaphor, colour concepts, translation practices, and discourse circulation may shift across communicative settings and cultural histories (Alzhanova et al., 2024; Constantinou, 2024; Juita et al., 2024; Khussainova et al., 2024). The framework may also underrepresent interactional context, irony, proverb adaptation, and cases whose meaning depends more on performance than on diction. Future research should test ECM on larger stratified corpora, report independent coding agreement, include contradictory and hybrid cases, and examine how proverbs function in translation, classrooms, digital discourse, cultural archives, and everyday interaction. Thus, ECM should be regarded as a testable analytical heuristic that makes coding assumptions explicit, accommodates dominant and secondary routes of meaning, and directs attention to both cross-cultural patterning and within-tradition variation.

Acknowledgements

The authors would like to thank the native-speaker consultants and academic colleagues who provided linguistic clarification and cultural feedback during the validation of Indonesian, Arabic, and Turkish proverbial data. Their insights helped the authors refine the translation, contextual interpretation, cultural commentary, and ECM coding of the selected proverbs.

The authors used AI-assisted tools for language refinement, grammar checking, editorial polishing, and the initial visual drafting of Figure 1. The figure's conceptual content, labels, relationships, and final

design were reviewed and revised by the authors. The research design, corpus construction, validation, interpretation, and all final scholarly decisions remain the authors' responsibility.

Disclosure Statement

The authors claim no conflict of interest.

Funding

The research did not receive any specific grants from funding agencies.

Data Availability

The complete dataset will be available upon reasonable request from the corresponding author.

Ethics Declaration

The research did not involve vulnerable populations, sensitive personal data, or experimental interventions. All procedures complied with relevant institutional ethical guidelines.

References

Alzhanova, A., Balmagambetova, Z., Zeinulina, A., Aratayeva, A., & Issabayeva, N. (2024). Cultural encounters in translation: Analyzing representation issues of a cognitive metaphor case in literature. *International Journal of Society, Culture & Language*, *12*(3), 32-45. https://doi.org/10.22034/ijscl.2024.2029453.3521

Bronner, S. J. (2008). *The meaning of folklore: The analytical essays of Alan Dundes*. University Press of Colorado.

Constantinou, M. (2024). The new world order metanarrative in translation on Twitter. *International Journal of Society, Culture & Language*, *12*(3), 46-64. https://doi.org/10.22034/ijscl.2024.2037227.3601

Goddard, C. (2006). *Ethnopragmatics: Understanding discourse in cultural context*. De Gruyter Mouton. https://doi.org/10.1515/9783110911114

Hassanein, H., & Mahzari, M. (2021). A taxonomy of antonymy in Arabic: Egyptian and Saudi proverbs in comparison. *Open Linguistics*, *7*(1), 200-222. https://doi.org/10.1515/opli-2021-0013

Hrisztova-Gotthardt, H., & Varga, M. A. (Eds.). (2015). *Introduction to paremiology: A comprehensive guide to proverb studies*. De Gruyter Open. https://doi.org/10.2478/9783110410167

Hymes, D. (2013). *Foundations in sociolinguistics: An ethnographic approach*. Routledge. https://doi.org/10.4324/9781315888835

Juita, N., Ermanto, E., Liusti, S. A., Dhika, V. T., Jr., & Ardi, H. (2024). The linguistic politeness of Indonesian female politicians in political communication on social media. *International Journal of Society, Culture & Language*, *12*(3), 17-31. https://doi.org/10.22034/ijscl.2024.2037674.3621

Khussainova, G., Tleuberdiyev, B., Shakenova, M., Islam, A., & Roziyeva, D. (2024). The cultural spectrum of colors: Exploring Kazakh, Korean and English color concepts. *International Journal of Society, Culture & Language*, *12*(3), 80-94. https://doi.org/10.22034/ijscl.2024.2035309.3565

Kövecses, Z. (2010). *Metaphor: A practical introduction* (2nd ed.). Oxford University Press.

Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. University of Chicago Press.

Mieder, W. (2004). *Proverbs: A handbook.* Greenwood Press.

Miller, R. L., & Brewer, J. D. (Eds.). (2015). *The A-Z of social research*. SAGE.

Norrick, N. R. (2011). *How proverbs mean: Semantic studies in English proverbs*. Mouton Publishers. https://doi.org/10.1515/9783110881974

Palmer, G. B. (1996). *Toward a theory of cultural linguistics*. University of Texas Press.

Schwandt, T. A. (2007). *The SAGE dictionary of qualitative inquiry*. SAGE. https://doi.org/10.4135/9781412986281

Sharifian, F. (2017). *Cultural linguistics: Cultural conceptualizations and language*. John Benjamins. https://doi.org/10.1075/clscc.8

Sholeh, K., Pamungkas, O. Y., Herlinawati, Astuti, M. T., Dudin, A., & Masae, A. (2026). Reconceptualizing critical thinking in academic writing: A Rasch model investigation of

cognitive, linguistic, and cultural dimensions in higher education. *Qubahan Academic Journal, 6*(3), 24-37. https://doi.org/10.48161/qaj.v6n3a2444

Stibbe, A. (2021). *Ecolinguistics: Language, ecology and the stories we live by* (2nd ed.). Routledge.

Sudigdo, A., & Suprapto. (2026). Digital poetics as cultural memory: Remythologizing trauma, spirituality, and resistance in Indonesian poetry. *Journal of Language, Literature, and Cultural Dynamics, 3*(1), 59-74. https://doi.org/10.65840/jllcd.v3i1.39

Türk Dil Kurumu. (n.d.). *Atasözleri ve deyimler sözlüğü* [Dictionary of proverbs and idioms]. https://sozluk.gov.tr/

Wardani, Y. (2018). Diction in Arab and Indonesian proverb: A comparative study. *Proceedings of the International Conference on Culture and Language in Southeast Asia, 154*, 39-42. https://doi.org/10.2991/icclas-17.2018.10

Yassin, M. A. F. (1988). Spoken Arabic proverbs. *Bulletin of the School of Oriental and African Studies, 51*(1), 59-68. https://doi.org/10.1017/S0041977X00020206

Appendix

Shortened Corpus Documentation Matrix

The appendix is shortened to satisfy the journal's word limit. It preserves the expanded 90-proverb corpus at the item level by reporting codes, representative forms/translations, and primary ECM markers. Detailed cultural commentary, consultant notes, and full source annotations are retained in the authors' working matrix and can be supplied if requested.

Table A1

Indonesian Corpus, Shortened Item-Level Documentation

Code	Proverb/translation	Primary ECM component
IND-HUM-01	*Seperti padi, makin berisi makin merunduk* [Like rice: the fuller it becomes, the more it bows.]	Ecological cognition
IND-HUM-02	*Air beriak tanda tak dalam* [Rippling water signals shallow depth.]	Mnemonic-stylistic architecture
IND-HUM-03	*Tong kosong nyaring bunyinya* [An empty barrel sounds loud.]	Mnemonic-stylistic architecture
IND-HUM-04	*Ilmu padi: makin berisi makin tunduk* [The knowledge of rice: the fuller it is, the more it bends.]	Ecological cognition
IND-HUM-05	*Kecil-kecil cabai rawit* [Small like a bird's-eye chili, yet powerful.]	Ecological cognition
IND-HUM-06	*Air tenang menghanyutkan* [Calm water can carry one away.]	Ecological cognition
IND-REG-01	*Nasi telah menjadi bubur* [The rice has become porridge.]	Ecological cognition
IND-REG-02	*Menyesal dahulu pendapatan, menyesal kemudian tak berguna* [Early regret is knowledge; later regret is useless.]	Mnemonic-stylistic architecture
IND-REG-03	*Habis manis sepah dibuang* [After sweetness is gone, the pulp is thrown away.]	Ecological cognition
IND-REG-04	*Menepuk air di dulang, terpercik muka sendiri* [Slap water in a tray and it splashes one's own face.]	Ecological cognition
IND-REG-05	*Sudah jatuh tertimpa tangga* [Already fallen, then struck by the ladder.]	Socio-historical anchoring
IND-REG-06	*Karena nila setitik, rusak susu sebelanga* [A drop of indigo spoils a pot of milk.]	Ecological cognition
IND-PRE-01	*Sedia payung sebelum hujan* [Prepare the umbrella before the rain.]	Ecological cognition
IND-PRE-02	*Tak ada rotan, akar pun jadi* [If there is no rattan, roots will do.]	Ecological cognition

Code	Proverb/translation	Primary ECM component
IND-PRE-03	*Sebelum ajal berpantang mati* [Before fate arrives, death is resisted.]	Cosmological memory
IND-PRE-04	*Biar lambat asal selamat* [Better slow, as long as safe.]	Mnemonic-stylistic architecture
IND-PRE-05	*Sekali merengkuh dayung, dua tiga pulau terlampaui* [With one stroke of the paddle, two or three islands are passed.]	Ecological cognition
IND-PRE-06	*Kalau tak ada angin, takkan pokok bergoyang* [If there is no wind, the tree will not sway.]	Ecological cognition
IND-COM-01	*Bagai pinang dibelah dua* [Like an areca nut split in two.]	Cosmological memory
IND-COM-02	*Berat sama dipikul, ringan sama dijinjing* [Heavy burdens are carried together; light ones are lifted together.]	Mnemonic-stylistic architecture
IND-COM-03	*Di mana bumi dipijak, di situ langit dijunjung* [Where the earth is stepped on, there the sky is upheld.]	Cosmological memory
IND-COM-04	*Lain ladang lain belalang, lain lubuk lain ikannya* [Different fields have different grasshoppers; different pools have different fish.]	Ecological cognition
IND-COM-05	*Ada udang di balik batu* [There is a shrimp behind the stone.]	Zoomorphic identity
IND-COM-06	*Bagai aur dengan tebing* [Like bamboo and the riverbank.]	Ecological cognition
IND-MEM-01	*Gajah mati meninggalkan gading, harimau mati meninggalkan belang* [The elephant leaves tusks; the tiger leaves stripes.]	Zoomorphic identity
IND-MEM-02	*Hujan emas di negeri orang, hujan batu di negeri sendiri, lebih baik di negeri sendiri* [Gold rain abroad, stone rain at home, yet home is better.]	Socio-historical anchoring
IND-MEM-03	*Harimau mati meninggalkan belang, manusia mati meninggalkan nama* [A tiger leaves stripes; a human leaves a name.]	Zoomorphic identity
IND-MEM-04	*Bumi mana yang tidak kena hujan* [What land has never been touched by rain?]	Ecological cognition
IND-MEM-05	*Tak lapuk oleh hujan, tak lekang oleh panas* [Not weathered by rain, not cracked by heat.]	Ecological cognition
IND-MEM-06	*Patah tumbuh hilang berganti* [Broken things grow again; lost things are replaced.]	Ecological cognition

Table A2

Arabic Corpus, Shortened Item-Level Documentation

Code	Proverb/translation	Primary ECM component
AR-HUM-01	*Kullamā ʿalat al-shajarah inḥanat aghṣānuhā* [The higher the tree grows, the more its branches bend.]	Ecological cognition
AR-HUM-02	*al-sukūt min dhahab* [Silence is golden.]	Mnemonic-stylistic architecture
AR-HUM-03	*Man tawāḍaʿa li-llāh rafaʿahu* [Whoever humbles himself before God, God raises him.]	Cosmological memory
AR-HUM-04	*al-ʿilm fī al-ṣighar ka-l-naqsh ʿalā al-ḥajar* [Learning in childhood is like engraving on stone.]	Ecological cognition
AR-HUM-05	*Lā tanẓur ilā man qāla wa-nẓur ilā mā qāla* [Do not look at who spoke; look at what was said.]	Socio-historical anchoring
AR-HUM-06	*Fawqa kulli dhī ʿilmin ʿalīm* [Above every knower is one who knows more.]	Cosmological memory
AR-REG-01	*al-ṣayfa ḍayyaʿti al-laban* [In summer, you wasted the milk.]	Ecological cognition
AR-REG-02	*Lā yanfaʿu al-nadam baʿda al-fawāt* [Regret after loss is useless.]	Mnemonic-stylistic architecture

Code	Proverb/translation	Primary ECM component
AR-REG-03	*Lā yuldagh al-muʾmin min juḥr wāḥid marratayn* [A believer is not stung twice from the same hole.]	Zoomorphic identity
AR-REG-04	*al-waqt ka-l-sayf in lam taqṭaʿhu qaṭaʿaka* [Time is like a sword; if you do not cut it, it cuts you.]	Ecological cognition
AR-REG-05	*Ḥabl al-kadhib qaṣīr* [The rope of lying is short.]	Ecological cognition
AR-REG-06	*Baʿda kharāb al-Baṣrah* [After the destruction of Basra.]	Socio-historical anchoring
AR-PRE-01	*Qabla al-rimāʾ tumlaʾ al-kināN* [Before shooting, the quivers are filled.]	Ecological cognition
AR-PRE-02	*Iḥdhar ʿaduwwaka marratan wa-ṣadīqaka alf marratin* [Beware your enemy once and your friend a thousand times.]	Socio-historical anchoring
AR-PRE-03	*Idhā hābat riyāḥuka fa-ightanimhā* [If your winds blow, take advantage of them.]	Ecological cognition
AR-PRE-04	*al-bāb alladhī yaʾtīka minhu al-rīḥ, aghliqhu wa-starīḥ* [Close the door from which the wind comes and rest.]	Socio-historical anchoring
AR-PRE-05	*Man jadda wajada* [Whoever strives finds.]	Mnemonic-stylistic architecture
AR-PRE-06	*al-ʿayn baṣīrah wa-l-yad qaṣīrah* [The eye sees, but the hand is short.]	Ecological cognition
AR-COM-01	*Wāfaqa Shannun Ṭabaqah* [Shannun matched Tabaqah.]	Socio-historical anchoring
AR-COM-02	*al-jār qabla al-dār* [The neighbour before the house.]	Socio-historical anchoring
AR-COM-03	*Yad wāḥidah lā tuṣaffiq* [One hand does not clap.]	Mnemonic-stylistic architecture
AR-COM-04	*al-ṭuyūr ʿalā ashkālihā taqaʿ* [Birds settle with their own kind.]	Zoomorphic identity
AR-COM-05	*Ṣadīquka man ṣadaqaka lā man ṣaddaqaka* [Your friend is one who tells you truth, not one who merely agrees.]	Mnemonic-stylistic architecture
AR-COM-06	*Khayr al-umūr awsaṭuhā* [The best affairs are the middle ones.]	Ecological cognition
AR-MEM-01	*Mawāʿīd ʿUrqūb* [The promises of ʿUrqūb.]	Socio-historical anchoring
AR-MEM-02	*Mā yawmu Ḥalīmah bi-sirr* [The day of Ḥalīmah is no secret.]	Socio-historical anchoring
AR-MEM-03	*al-āthār tadullu ʿalā al-masīr* [Traces indicate the path.]	Ecological cognition
AR-MEM-04	*al-qaṭrah ʿalā al-qaṭrah tuṣbiḥ baḥrā* [Drop upon drop becomes a sea.]	Ecological cognition
AR-MEM-05	*al-nār talidu al-ramād* [Fire gives birth to ash.]	Cosmological memory
AR-MEM-06	*Awwalu al-ghayth qaṭrah* [The first of rain is a drop.]	Ecological cognition

Table A3

Turkish Corpus, Shortened Item-Level Documentation

Code	Proverb / translation	Primary ECM component
TR-HUM-01	*Ağaç meyvesi olunca başını aşağı salar* [When the tree bears fruit, it lowers its head.]	Ecological cognition
TR-HUM-02	*Boş teneke çok ses çıkarır* [An empty can makes much noise.]	Socio-historical anchoring
TR-HUM-03	*Söz gümüşse sükût altındır* [If speech is silver, silence is gold.]	Mnemonic-stylistic architecture
TR-HUM-04	*Ağaç yaşken eğilir* [A tree bends while young.]	Ecological cognition
TR-HUM-05	*Bin bilsen de bir bilene danış* [Even if you know a thousand things, consult one who knows.]	Socio-historical anchoring
TR-HUM-06	*Keskin sirke küpüne zarar* [Sharp vinegar harms its own jar.]	Socio-historical anchoring
TR-REG-01	*Atı alan Üsküdar'ı geçti* [The one who took the horse has already passed Üsküdar.]	Socio-historical anchoring

Code	Proverb / translation	Primary ECM component
TR-REG-02	*Son pişmanlık fayda etmez* [Late regret is useless.]	Mnemonic-stylistic architecture
TR-REG-03	*Yalancının mumu yatsıya kadar yanar* [A liar's candle burns only until night prayer.]	Socio-historical anchoring
TR-REG-04	*Düşenin dostu olmaz* [The fallen has no friend.]	Socio-historical anchoring
TR-REG-05	*Bir musibet bin nasihatten yeğdir* [One misfortune is better than a thousand pieces of advice.]	Ecological cognition
TR-REG-06	*Gözden ırak olan gönülden de ırak olur* [What is far from the eye is far from the heart.]	Ecological cognition
TR-PRE-01	*Sakla samanı, gelir zamanı* [Keep the straw; its time will come.]	Mnemonic-stylistic architecture
TR-PRE-02	*Ayağını yorganına göre uzat* [Stretch your foot according to your blanket.]	Socio-historical anchoring
TR-PRE-03	*Ak akçe kara gün içindir* [White coin is for the dark day.]	Socio-historical anchoring
TR-PRE-04	*Bugünün işini yarına bırakma* [Do not leave today's work for tomorrow.]	Ecological cognition
TR-PRE-05	*Dereyi görmeden paçayı sıvama* [Do not roll up your trousers before seeing the stream.]	Ecological cognition
TR-PRE-06	*Kervan yolda düzülür* [The caravan is arranged on the road.]	Socio-historical anchoring
TR-COM-01	*Tencere yuvarlanmış kapağını bulmuş* [The pot rolled and found its lid.]	Socio-historical anchoring
TR-COM-02	*Komşu komşunun külüne muhtaçtır* [A neighbour needs even the neighbour's ash.]	Socio-historical anchoring
TR-COM-03	*Üzüm üzüme baka baka kararır* [Grape darkens by looking at grape.]	Socio-historical anchoring
TR-COM-04	*Bir elin nesi var, iki elin sesi var* [What has one hand? Two hands have sound.]	Mnemonic-stylistic architecture
TR-COM-05	*Ev alma, komşu al* [Do not buy a house; buy a neighbour.]	Socio-historical anchoring
TR-COM-06	*Akıl akıldan üstündür* [One mind is superior to another mind.]	Socio-historical anchoring
TR-MEM-01	*Ay gör oruç tut, ay gör bayram eyle* [See the moon, fast; see the moon, celebrate Eid.]	Cosmological memory
TR-MEM-02	*Damlaya damlaya göl olur* [Drop by drop becomes a lake.]	Ecological cognition
TR-MEM-03	*Dost kara günde belli olur* [A friend is known in hardship.]	Socio-historical anchoring
TR-MEM-04	*Gülü seven dikenine katlanır* [One who loves the rose endures its thorns.]	Ecological cognition
TR-MEM-05	*Ne ekersen onu biçersin* [You reap what you sow.]	Ecological cognition
TR-MEM-06	*Mart kapıdan baktırır, kazma kürek yaktırır* [March makes one look from the door and burn pickaxe and shovel.]	Ecological cognition