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FROM CORE MEANING TO REGISTER-SPECIFIC PROFILING: A CONTRASTIVE STUDY OF THE MILK/SUT LEXICAL-SEMANTIC FIELD IN ENGLISH AND UZBEK

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Abstract: This article investigates the lexical-semantic organization and register-specific profiling of the MILK/SUT field in English and Uzbek. A core-periphery and componential analysis was applied to 93 nominative units (49 English; 44 Uzbek), while 14 attested contexts provided balanced evidence from seven functional environments. The core consists only of milk and sut; the pre-core and proximate periphery contain 72.0% of the registry. Multiword nominations account for 57.0%, showing that source, composition, processing, and function are commonly encoded through specification. English favours noun premodification, compounding, and conversion, whereas Uzbek more often uses possessive structures, suffixation, descriptive combinations, and independent dairy-product names. Across scientific-popular, legal, culinary, literary, conversational, economic, and advertising texts, reference remains comparatively stable while grammatical role and evaluative framing change. The results show that bilingual equivalence must be established at sense and context level, particularly for yogurt/qatiq, buttermilk/ayron, and curd/suzma.

Keywords: lexical-semantic field; core-periphery structure; English-Uzbek contrast; register; milk/sut

1. Introduction

The apparent equivalence of *milk* and Uzbek *sut* becomes unstable once analysis moves beyond the unmarked nourishing liquid. Biological source, technological state, *dairy* products, occupational names, analogical beverages, and transferred senses are not divided identically by the two lexical systems. The relevant contrastive question is therefore how each language structures the semantic territory around its dominant noun and how the resulting units are selected in communication.

Lexical-field theory treats vocabulary as a network of recurrent semantic relations rather than as isolated dictionary entries (Lehrer, 1974; Lyons, 1977; Cruse, 1986). Graded category boundaries are especially important here: mammary secretion may occupy the centre, whereas plant-based uses, visual resemblance, and the verbal sense 'exploit' depend on analogical or transferred extension (Geeraerts, 2010). Uzbek field research likewise emphasizes paradigmatic, syntagmatic, and hierarchical relations (Iskandarova, 1998), while research on food names shows that ingredient, process, cultural prototype, and naming motivation interact (Usmonova, 2024). Thus *cow's milk* specifies the same substance, whereas *qatiq*, *suzma*, *ayron*, *qimiz*, and *qurut* name products connected to *sut* through source and processing.

Systemic structure does not fully predict textual behaviour. Register analysis relates linguistic selection to situation, and stylistics explains the effect of a form within a particular text (Biber & Conrad, 2009; Verdonk, 2002). A dictionary can align *breast milk* with *ona suti*, but it cannot show why a health text foregrounds nutrients, a law repeats a term for precision, a recipe places it in an action sequence, or an advertisement associates it with purity and need. This study therefore addresses three linked questions: how the bilingual field is distributed across core and peripheral zones; which structural and semantic patterns create correspondence or asymmetry; and how the domain is profiled in seven functional environments. Phraseology and paremiology are excluded so that lexical-semantic and contextual relations remain analytically distinct.

2. Materials and Methods

The study used two linked datasets. Dataset A contains 93 established nominations: 49 English units (52.7%) and 44 Uzbek units (47.3%) drawn from explanatory dictionaries, *dairy* standards, regulatory definitions, and established general or technical usage (Cambridge Dictionary, n.d.-a, n.d.-b, n.d.-c, n.d.-d, n.d.-e, n.d.-f; Merriam-Webster, n.d.-a, n.d.-b; Izoh.uz, n.d.; Electronic Code of Federal Regulations, 2026; Food and Agriculture Organization of the United Nations [FAO] & World Health Organization [WHO], 2022, 2024). A unit was included when it named a distinct referent, property, process, actor, or lexical-semantic variant; inflectional forms, spelling variants, and repeated tokens were not counted separately. Conventional lexemes and multiword terms were both eligible. Dataset B contains 14 traceable contexts, one English and one Uzbek example from each of seven environments: scientific-popular, official-regulatory, culinary, literary, conversational, economic-news, and advertising discourse. The balanced 7:7 design supports qualitative comparison but does not claim equal frequency across languages or registers.

Field membership was coded by semantic distance from the dominant noun. The core was restricted to the unmarked *milk* and *sut*. The pre-core contains direct specifications by source, composition, state, or primary treatment; the proximate periphery contains derivations, actors, activities, sector names, and products linked through a source-result relation. Biochemical, anatomical, and physiological terminology forms a domain-specific periphery, whereas analogical or substitute nominations occupy the remote periphery. Idioms and proverbs were excluded. The dictionary-recorded verbal *to milk* 'exploit' was retained because it is an independent lexicalized sense rather than a fixed expression (Merriam-Webster, n.d.-b).

Each nominative unit received one field-zone, one structural, and one semantic label. Structural coding distinguished simple/borrowed lexemes, derivatives, compounds, conversion, and multiword nominations. Semantic coding identified biological source and nourishment; composition/state/processing; *dairy* product or sector; action/person/attribute; specialized terminology; analogy; or transferred meaning. Contexts were examined for referent, grammatical placement, co-text, and communicative function. Percentages are descriptive because the registry is purposively curated rather than randomly sampled. Dictionary meanings and regulatory terminology were also kept separate: Codex definitions delimit food terminology but do not replace wider lexical usage (FAO & WHO, 2022).

3. Results

3.1. Field architecture

The bilingual centre is minimal: *milk* and *sut* share mammary origin, liquid substance, nourishment, and animate source as core components. Most units are generated by narrowing or extending this centre. As Table 1 shows, the pre-core and proximate periphery contain 67 of 93 items (72.0%), while specialized and analogical zones each account for 12.9%.

Table 1. Distribution of the bilingual registry across field zones

Field zone	English	Uzbek	Total	Share
Core	1	1	2	2.2%
Pre-core	15	17	32	34.4%
Proximate periphery	21	14	35	37.6%
Domain-specific periphery	6	6	12	12.9%
Remote/analogical periphery	6	6	12	12.9%
Total	49	44	93	100.0%

The pre-core is closely parallel: *breast milk*/*mother's milk-ona suti*/ko'krak *suti* and *cow's milk*-sigir *suti* preserve the invariant while narrowing source. As distance increases, the languages package relations differently. English uses *milky*, *milker*, *milkman*, *milk-based* and *buttermilk*; Uzbek uses *sutli*, *sutchi*, *sutchilik*, *sut mahsulotlari* and distinct product names such as *qatiq* and *suzma*. Plant *milk*, *oat milk*, *bodom suti* and *suli suti* remain connected by colour, texture, or functional substitution rather than mammary origin. The transferred verb *to milk* is more distant still and is normally rendered with another Uzbek root, for example *foydalanib qolmoq* or *siqib olmoq*.

3.2. Structural and semantic patterning

Multiword nomination is the principal structural mechanism in both languages, representing 53 units (57.0%). Simple or borrowed lexemes account for 29.0%; derivation, compounding, and conversion jointly account for 14.0%. The shared reliance on specification coexists with typological asymmetry: English productively uses noun premodification and compounding, whereas Uzbek distributes similar content across adjective-noun and possessive constructions, suffixation, and independent lexical roots.

Table 2. Structural classification of the 93 units

Structural type	English	Uzbek	Total	Share
Simple/borrowed lexeme	14	13	27	29.0%
Affixal derivative	2	5	7	7.5%
Compound/compound-like	4	1	5	5.4%
Conversion	1	0	1	1.1%
Multiword nomination	28	25	53	57.0%

Structural type	English	Uzbek	Total	Share
Total	49	44	93	100.0%

Table 3. Semantic distribution of the bilingual registry

Semantic group	English	Uzbek	Total	Share
Biological source and nourishment	9	8	17	18.3%
Composition, state, and processing	7	10	17	18.3%
Dairy products and sector	16	10	26	28.0%
Action, person, and attribute	5	4	9	9.7%
Biochemical/medical/anatomical	6	6	12	12.9%
Analogy-based nomination	5	6	11	11.8%
Converted transferred sense	1	0	1	1.1%
Total	49	44	93	100.0%

Semantic coding confirms that structural similarity does not guarantee referential equivalence. Dairy products and sector names form the largest group (26 items; 28.0%); biological source/nourishment and composition/state/processing each contain 17 items (18.3%). Specialized terms account for 12.9%, analogy for 11.8%, action/person/attribute for 9.7%, and the converted transferred sense for 1.1%. Near equivalence is strongest at the core (*milk-sut*) and for compositionally explicit terms such as *lactose-free milk-laktozasiz sut*. Correspondence becomes partial for *yogurt-qatiq*, *buttermilk-ayron*, and *curd-suzma* because preparation, texture, and cultural prototype may differ. The polyfunctional English *dairy* likewise requires context-dependent Uzbek choices such as *sut mahsulotlari*, *sut fermasi*, or *sut sanoati*.

Table 4. Representative levels of English-Uzbek correspondence

English unit	Uzbek resource	Relation	Decisive feature
milk	sut	Near	Core referent aligns; secondary senses differ
human/breast/mother's milk	ona suti / ko'krak suti	Distributed	Maternal relation, species, and anatomy are lexicalized differently

English unit	Uzbek resource	Relation	Decisive feature
whole/skimmed milk	to'liq / yog'siz / qaymog'i olingan sut	Descriptive	Composition or processing may require explicit wording
dairy	sut mahsulotlari / fermasi / sanoati	Distributed	English form spans product, place, sector, and modifier functions
yogurt	qatiq	Partial	Fermented class overlaps; prototypes and production may differ
buttermilk	ayron	Partial	Residual liquid and diluted fermented drink are not identical
curd / cottage cheese	suzma	Partial-descriptive	Coagulation, fresh cheese, and straining encode different processes
to milk (transferred)	foydalanib qolmoq / siqib olmoq	Asymmetric	Uzbek selects another verbal root instead of zero conversion

The table distinguishes direct equivalence from distributed and descriptive correspondence. The decisive unit is not the isolated form but the lexicalized sense together with its syntactic function. A one-word target is adequate only when the features relevant to the immediate context coincide; otherwise, explicit specification preserves the intended contrast.

3.3. Register-specific profiling

The 14-context sample shows that register variation primarily changes profiling, not the central referent. Modifiers and predicates restrict reference; grammatical position assigns the item a role; surrounding evaluation adapts it to the communicative task. Table 5 summarizes the paired evidence.

Table 5. Functional profiling in the balanced contextual sample

Environment	English evidence	Uzbek evidence	Dominant profile
Scientific-popular	breast milk: energy/nutrients	ona suti: eng mukammal ozuqa	Physiological specification / accessible evaluation
Official-regulatory	milk; milk product	ona suti o'rnini bosuvchi mahsulot	Stable terminological boundary
Culinary	put the milk; heat gently	sut solib aralashtiramiz	Ingredient in procedural sequence
Literary	to milk cows	oppoq ipdek sut	Professional action / sensory image

Environment	English evidence	Uzbek evidence	Dominant profile
Conversation	Do you take milk?	sutiga qoshiq botmaydi	Elliptical choice / contextual humour
Economic news	milk price slide	12.4 mln tonna sut	Market pressure / quantified output
Advertising	got milk?	har bir tomchi ... soflik	Need activation / positive value transfer

Scientific-popular texts retain the biological sense but vary informational emphasis: the WHO specifies *breast milk* as an energy and nutrient source, while an Uzbek Ministry of Health text presents *ona suti* as the most complete food for infants (World Health Organization, 2026; Ministry of Health of the Republic of Uzbekistan, 2024). Legal texts instead rely on definition and controlled repetition. Codex distinguishes *milk* from *milk product*, and Uzbek legislation repeats *ona suti* within the term for substitute products to prevent referential drift (FAO & WHO, 2022; Republic of Uzbekistan, 2019). In recipes, the English imperative 'Put the *milk* ... and heat gently' and the Uzbek inclusive sequence *sut solib aralashtiramiz* both turn the substance into a manipulable ingredient (Nice, 2017; Sitora, 2018).

Literary and conversational texts exploit grammatical and sensory affordances. Hardy's converted verb *to milk* integrates agricultural labour into characterization, whereas the Uzbek *oppoq ipdek sut* foregrounds colour, motion, and perception (Hardy, 1891; Izoh.uz, n.d.). Kipling's '*Do you take milk?*' depends on situational ellipsis; the Uzbek askiya example *sutiga qoshiq botmaydi* uses contextual exaggeration for praise and humour (Kipling, 1888; Izoh.uz, n.d.). Economic headlines profile *milk*/*sut* as an indicator: Reuters foregrounds price decline, while Uzbek official statistics foreground production volume (Reuters, 2026; National Statistics Committee, 2025). Advertising is more evaluative: *got milk?* activates perceived need through ellipsis, whereas Musaffo transfers purity and benefit to 'every drop' (California Milk Processor Board, n.d.; Musaffo, 2024). These differences are properties of the cited genres and texts, not fixed national oppositions.

4. Discussion

The results support a two-level account. At system level, *milk* and *sut* are close equivalents, but semantic distance is graded: a source subtype, a processed product, a specialized term, an analogy, and a transferred sense do not occupy identical positions. Root-sharing is therefore insufficient as a membership criterion. Sutsimon contains the root but is farther from the biological centre than *qatiq*, which lacks it yet preserves a material-source relation. Cultural associations such as purity or maternal obligation should likewise not be treated as components of every occurrence.

Structural asymmetry arises within a shared communicative need to specify the material noun. English condenses relations through noun premodification, compounding, multifunctional forms, and conversion; Uzbek often uses transparent suffixation, possessive or descriptive constructions, and autonomous product names. This matters for translation and lexicography. Yogurt/*qatiq*, *buttermilk*/*ayron*, and *curd*/*suzma* may function as practical equivalents in a general context, but culinary, ethnographic, regulatory, or commercial texts may require borrowing or explanation. Dairy has no single Uzbek equivalent across product, farm, industry, shop, and attributive meanings.

Product names reveal the practical limits of formal bilingual pairing. Yogurt and *qatiq* share the superordinate feature 'fermented *milk* product', yet equivalence may weaken when acidity, starter culture, texture, or customary use becomes relevant. Butter*milk* and *ayron* are even less stable as a pair

because the English term may denote liquid remaining after butter production, whereas *ayron* ordinarily denotes a prepared fermented drink. Curd, cottage cheese, and *suzma* similarly intersect without forming a single invariant category. In translation, the appropriate solution may therefore be a conventional equivalent, borrowing with explanation, or an explicit process-based description. The choice depends on what the receiving text must preserve.

Register-specific profiling is produced by three recurrent operations: referential restriction, grammatical placement, and evaluative framing. Together they make *milk*/*sut* a nutrient source, legal identifier, recipe ingredient, sensory detail, conversational choice, economic measure, or persuasive cue. The cited Uzbek examples include culturally dense product names and maternal framing, but the balanced contextual set does not warrant claims that Uzbek is inherently more emotional or English inherently more technical. It demonstrates available strategies in specified texts; national preferences would require corpora matched by genre, date, institutional source, and size.

Methodologically, linking a lexical registry to attested contexts allows each analytical level to constrain the other. The field model distinguishes denotation, source-result relations, specialized terminology, analogy, and transferred meaning; contextual evidence shows which part of that structure is activated for a particular audience. This prevents dictionary definitions from being treated as complete accounts of use and prevents a striking textual example from being elevated into a permanent lexical component. The design can be transferred to other everyday material domains in which apparent one-word equivalence conceals differences in product taxonomy and discourse function.

The study remains limited by the scale and composition of its data. The 93-unit registry is curated rather than exhaustive, and its percentages describe the analytical inventory, not the total vocabularies of English and Uzbek. The 14 contexts are balanced for interpretive comparison but cannot support frequency or population-level generalization. Regulatory definitions are also jurisdiction-specific, and dictionaries may regularize variable usage. Further research should use genre-matched corpora, report inter-coder agreement, and publish the full bilingual coding inventory so that the proposed structural and register tendencies can be independently tested.

5. Conclusion

Milk and *sut* form a stable bilingual core, yet most of the observed field lies in zones created by source, processing, product, specialization, and analogy. The concentration of 72.0% of units in the pre-core and proximate periphery, together with the 57.0% share of multiword nominations, shows that lexical expansion depends mainly on semantic specification. English and Uzbek meet this need through partly different structural resources. Context then reselects the same domain through referential restriction, grammatical role, and evaluation. Consequently, contrastive description should establish equivalence for a particular sense and communicative setting, not through a one-word-to-one-word formula.

Declarations

Ethics statement. The study uses public lexical and textual materials and involves no human participants or personal data.

Conflict of interest. The author declares no conflict of interest.

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Data availability. The cited materials are publicly accessible; the coded registry forms part of the author's dissertation dataset.

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