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Metaphorization of meteorological lexis in the English and Kazakh languages (on the material of National language corpora)

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NOTATIONS AND ABBREVIATIONS

Adj	– Adjective
Adv	– Adverb
ACKL	– Almaty Corpus of the Kazakh Language
BNC	– British National Corpus
COCA	– Corpus of Contemporary American English
COHA	– Corpus of Historical American English
CL	– Cognitive linguistics
KLC	– Kazakh Language Corpus
KWIC	– Keyword in Context
NCKL	– National Corpus of the Kazakh Language
N	– Noun
V	– Verb

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INTRODUCTION

Relevance of the research. The present stage of social development is marked by an unusually intense growth of intercultural contact, driven by globalisation and the worldwide spread of English. In today's communicative space, English serves not only as a practical tool but also as a medium through which economic, social, and cultural models are transmitted from one community to another. Social change of this kind cannot leave language untouched: shifts in the way people live together gradually reshape the meanings that words carry, and the linguistic picture of the world adjusts itself accordingly to reflect the changing needs of those who speak it.

The growing integration of communication brings communities closer together, but this process is not without its costs. Alongside the emergence of a shared discursive space, there is a real risk of cultural levelling – the gradual erosion of local symbolic codes and the weakening of ethnolinguistic identity. Under increasing standardisation, national traditions, value systems, and the unique character of a language may quietly recede from public attention.

In such a setting, the way people use language is closely tied to questions of cultural self-identification: speakers want to remain part of their own ethnocultural world and at the same time participate in a wider global conversation. It is here that metaphor becomes especially important – as a cognitive instrument that preserves and transmits cultural meaning. For this reason, the present research addresses those deeper forms of thought that determine the significance of national specificity, linguocultural differences, and distinctive characteristics of a given community. Studying metaphor as a linguistic-cognitive phenomenon makes it possible to grasp the uniqueness and originality of a culture and the everyday life of a people – a life in which new images, associations, and comparisons continually emerge for one and the same natural phenomena, including meteorological processes.

Metaphor works as a linguistic mechanism that encodes culturally rooted experience and reflects the particular worldview of a community; it allows the researcher to approach what may be called the symbolic "national code" of a people. From this point of view, identifying and analysing meteorological metaphors becomes a task of particular interest. Bringing two typologically distant languages into comparison makes it easier to see both the universal cognitive patterns that underlie the conceptualisation of natural phenomena and those patterns that are shaped specifically by national experience.

Within the anthropocentric paradigm of modern linguistics, metaphor is treated as a cognitive tool by which a speaker interprets and organises reality. Studying meteorological metaphors therefore opens a window onto the culturally specific ways in which the natural world is perceived and categorised. It becomes possible to follow how climatic, geographical, and ethnocultural experience is refracted through linguistic imagery and settles into stable semantic models.

Philology, as one of the core disciplines of the humanities, contributes to the shaping of contemporary humanistic knowledge by preserving and interpreting the

cultural meanings embedded in language. It plays an important role in the renewal of public consciousness, in the preservation of language, and in the continuity of cultural memory and national identity. Since language is at once a repository of cultural heritage and a symbolic code of ethno-national identity, its study remains one of the main routes by which we can understand the collective worldview of a people.

The question of how to balance globalisation with the preservation of national cultural identity occupies an important place in contemporary Kazakh language policy. The spread of English is actively encouraged in order to strengthen the country's position in the global academic and economic space; at the same time, the support and revitalisation of the Kazakh language is treated as a matter of equal strategic importance, particularly through corpus-based research, digitalisation, and educational reform.

State initiatives reflected in the strategic documents Kazakhstan-2050 and Digital Kazakhstan, as well as Government Resolution of the Republic of Kazakhstan No. 1045 of 31 December 2019 approving the State Programme for Implementing the Language Policy for 2020-2025, explicitly list the creation of the National Corpus of the Kazakh Language as a priority. The aims of the present research fit within this policy framework: the dissertation contributes to building a linguistically grounded approach to preserving national linguistic heritage and strengthening ethnocultural identity in the face of expanding global communication.

The National Corpus of the Kazakh Language (NCKL) serves as the principal empirical resource for the Kazakh part of the present study. Together with the British National Corpus and the Corpus of Contemporary American English on the English side, it offers a large, hypertextually organised body of authentic texts with morphological annotation and concordance access, which makes it possible to retrieve every use of a given word together with the immediate context in which it appears.

The combined use of national corpora of two typologically distant languages provides the comparative empirical foundation on which the structural and semantic analysis in this dissertation is built.

Within the framework of Kazakhstan's national ideas – "Eternal Nation" and "Spiritual Revival" – national linguistic consciousness, the national linguistic worldview, and the ethnocultural features of language revealed through comparative research all stand among the essential components for the preservation of the cultural code and identity. Metaphor brings these components together, acting as a bridge between language, culture, and thought.

Meteorological metaphors carry significant national-cultural meanings; they reflect the people's way of life, traditions, customs, and cultural identity. This is what makes their study both relevant and theoretically valuable for the present dissertation. The topic acquires particular weight today, when national identity is undergoing modernisation and the country is becoming increasingly open to the influences of globalisation.

The relevance of the present research is determined by three converging factors: the scarcity of studies devoted to meteorological metaphor specifically, despite a small but growing body of recent work on adjacent weather- and climate-related metaphor in media and literary discourse; the absence of a comprehensive analysis combining structural-semantic and corpus-based perspectives within a single methodological framework; and the growing importance of digital corpora in current linguistic research. These factors correspond to the general direction of modern philological inquiry, which emphasises interdisciplinarity, the integration of cognitive and cultural approaches, and the use of advanced technological methods.

Metaphorization is one of the key cognitive mechanisms by which speakers perceive, interpret, and classify the surrounding world, then encode their understanding in linguistic form. The universal character of metaphor lies in the fact that it is present in every language, since metaphoricity is among the most fundamental principles of human thought and communication. Metaphor is therefore not a passive image of reality but an active instrument that shapes the way human beings experience the world.

At present, the study of metaphorical conceptualisation has become one of the most active and interdisciplinary areas of research, extending well beyond traditional philology. Working with corpus material from different languages makes it possible to see metaphor not only as a figure of speech but also as a cognitive and cultural phenomenon, which contributes to a fuller understanding of the linguistic worldview.

Interpreting natural phenomena through analogy and figurative association is one of the oldest cognitive operations of the human mind, and meteorological metaphor holds a particularly important place in this tradition.

Meteorology is one of the most important thematic areas of human experience, because it covers natural phenomena that every person encounters daily, regardless of nationality, cultural background, or geographic location. The present study focuses on meteonyms – lexical units that carry various shades of meaning and reflect the perception of reality encoded in the national linguistic worldview.

Within this research, a variety of metaphorical images have been systematised and classified, including terms, figurative extensions, idiomatic expressions, and the so-called meteo-phraseological units – lexico-phraseological combinations belonging to the meteorological semantic field. Taken together, all of these are treated as instances of meteorological metaphor in its broadest sense. The value of such an approach lies in the rich opportunities it opens for in-depth analysis of metaphorical phenomena, particularly when supported by corpus-based linguistic data.

A corpus-based exploration of meteorological metaphors makes it possible to trace the real functioning of lexical units in authentic discourse and to bring out the specific mechanisms by which their figurative reinterpretation takes place. From this angle, the national linguistic corpus can be seen as a technologically advanced innovation in the contemporary humanities – a resource that not only preserves

linguistic and cultural wealth but also offers insight into the dynamics and evolution of language.

Research object: the meteorological metaphor in the English and Kazakh languages based on the material of National Language Corpora

Research subject: the nationally specific features of the metaphorical use of meteorological lexis in the English and Kazakh languages.

Research purpose: to determine the national and cultural specificity underlying the metaphorization of meteorological phenomena and to analyse both structural-semantic parameters and cultural characteristics.

Research objectives:

– to identify the corpus of meteonyms with metaphorical meaning, drawing on corpus data and lexicographic sources;

– to determine the structural and semantic features of meteorological metaphors in both languages on the basis of corpus data;

– to establish the motivational attributes of metaphorical transfers in the meteorological lexis of the two languages;

– to reveal the regular metaphorical transfers and their productivity in the meteorological lexis of the two languages;

– to interpret the national and cultural specificity of meteorological metaphor in the two linguocultures through its culturally grounded sources.

Research methods: continuous sampling and contextual analysis; component and structural-semantic analysis; descriptive, interpretative, and comparative methods; the Metaphor Identification Procedure (MIP) and its extended version (MIPVU); corpus-based frequency, collocational, and concordance analysis.

The theoretical and methodological framework of the research.

The importance of studying metaphoricity – both as the foundation of many linguistic processes and as a primary way of conceptualising the world – was recognised already in antiquity by Aristotle [3] and Cicero [5], whose insights laid the groundwork for the philosophical and linguistic inquiry that followed. In modern scholarship this tradition has been carried forward by such thinkers as E. Cassirer [10], J. Ortega y Gasset [11], W. von Humboldt [9], J. Searle [16], G. Lakoff and M. Johnson [18], Z. Kövecses [28], D. Davidson [15], M. Black [14], A. Goatly [26; 135], A. Ortony [21], I.A. Richards [12], A. Barcelona [24], P. Wheelwright [13], G. Fauconnier [22], and G.J. Steen [139].

A significant contribution to metaphor theory has also been made by Russian scholars, whose works remain foundational for post-Soviet linguistic and cognitive research. Among them are Yu.D. Apresyan [23], N.D. Arutyunova [1; 10], A.N. Baranov [98], V.G. Gak [92], O. Glazunova [91], O.N. Laguta [99], Yu.I. Levin [88], V.M. Moskvin [87; 93], V.V. Petrov [4], A.A. Potebnya [7], Z.D. Popova A. Sternin [20], G.N. Sklyarevskaya [89], V.N. Telia [94], and A.P. Chudinov [95; 96].

In Kazakh philology, the study of metaphor has a long and well-established tradition; a number of outstanding linguists have contributed to its theoretical development and practical interpretation. Among them are R. Barlybayev [35],

A. Bolganbayev [33], K. Zhumaliyev [29], Z. Kabdolov [36], B. Kasym [41], T. Mukhamedzhanov [31], R. Sadykbekov [32], A. Salkynbay [172], and B.Kh. Khassanov [30].

Contemporary linguistics increasingly focuses on the methodological and applied problems of corpus linguistics, which has established itself as an important foundation for empirical language research. The principles of corpus design and their application have been discussed by such scholars as P. Baker [105], C.F. Meyer [106], M.A.K. Halliday [143], J. Sinclair [146], E. Tognini-Bonelli [142], M. Weisser [137], and A. Wilson [108].

The question of automatic and semi-automatic extraction of metaphors from linguistic corpora has received considerable attention in recent years. This line of research has been actively developed by Western scholars such as J. Charteris-Black [136], A. Deignan [140], G.J. Steen [139], A. Stefanowitsch and S.T. Gries [138], whose works focus on the identification, classification, and quantitative analysis of metaphorical patterns across large textual datasets.

A number of Russian scholars have made an important contribution to the development of corpus-based methodology and to the study of metaphorical modelling. Among them are S.Yu. Bogdanova [100], N.B. Gvishiani [109], E.V. Grudeva [113], V.P. Zakharov [100], M.V. Kopotev [114], G.I. Kustova [110], V.A. Plungyan [112], and V.V. Rykov [111].

In Kazakhstan, the development and implementation of the National Corpus of the Kazakh Language, as well as the formation of Kazakh corpus linguistics as an emerging discipline, are being actively pursued by scholars from the Department of Applied Linguistics at the A. Baitursynuly Institute of Linguistics. The key contributors to this project include A.K. Zhubanov [115; 123], A.M. Fasylzhanova [117], A. Zhanabekova [115].

Research sources and materials: The empirical basis of the study consists of metaphorical nominations extracted from balanced corpus data representing diverse genres and registers – literary and scientific texts, popular-science journals, newspapers, academic publications, and lexicographic sources.

The research material consists of meteonyms – lexical units that denote meteorological phenomena. In the course of the corpus analysis, more than 20 000 concordance lines in English and Kazakh were examined, and a total of 556 meteonyms were identified: 255 in English and 301 in Kazakh. In addition, 282 sentence structures containing meteorological lexis were selected from the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA), and 297 from the National Corpus of the Kazakh Language (NCKL) and the Almaty Corpus of the Kazakh Language (ACKL). Of these, meteorological lexemes are used in a figurative (metaphorical) sense in 205 English and 132 Kazakh contexts.

Scientific novelty of the research:

– for the first time, the meteorological lexis of English and Kazakh has been systematized in a comparative perspective as a source domain of metaphorization; its composition has been delimited (556 meteonyms: 255 English and 301 Kazakh),

and the motivational characteristics underlying the metaphorical potential of meteonyms have been identified on corpus material, revealing the context-dependent and evaluatively ambivalent nature of meteorological metaphor;

– a structural-semantic analysis of meteorological metaphors has been undertaken on the basis of national language corpora, used as the main empirical foundation, with a step-by-step procedure for the extraction, verification, and categorisation of metaphors developed on the basis of MIPVU and adapted, for the first time, to the material of the Kazakh national corpora;

– the motivational attributes and the mechanism of metaphorical transfer have been systematically analysed, which has made it possible to establish empirically the anthropocentric orientation as the dominant direction of meteorological metaphorisation;

– the regular metaphorical transfers and their productivity have been revealed through a comparative corpus-based interpretation, which discloses both the universal and the language-specific features of the metaphorisation of meteorological lexis in the two languages;

– the national and cultural specificity of English and Kazakh meteorological metaphor has been interpreted comparatively through its culturally grounded sources, showing that the two languages draw on distinct cultural frameworks and that one and the same meteorological image can receive different axiological readings depending on the cultural tradition in which it is used.

Theoretical and practical significance of the work.

The theoretical and practical value of the results lies in propositions that contribute to the advancement of several related fields – philology, cognitive linguistics, and corpus linguistics. The findings provide a new interdisciplinary foundation for analysing metaphor as a cognitive and cultural phenomenon within corpus-based research.

The materials of the study can be applied in the methodology of teaching languages, since the analysis of metaphorical meanings in weather-related vocabulary substantially enriches learners' linguocultural competence and supports intercultural communication. The developed algorithm for corpus search, metaphor extraction, and the step-by-step analysis of lexemes can serve as a working model for further corpus-based linguistic research.

The results of the present study, particularly the corpus analysis of meteorological metaphors, can be used in the compilation of an electronic dictionary of metaphors with interpretative and explanatory data. The national-cultural completeness of meteorological metaphorization could also be reflected in a bilingual or trilingual metaphorical dictionary that integrates linguistic and cultural information – descriptions of phraseo-meteonyms, etymologies of meteorological lexemes, references to geography and mythology, and examples of usage in speech, literature, and various discourse genres.

Main propositions submitted for defense:

1. The metaphorisation of meteorological lexis in both languages is motivated: each transfer rests on one of seven types of motivational features of the source

lexeme (physical, decorative and sensory, tactile and thermal, temporal, functional and dynamic, quantitative and structural, subjective and psychological). The evaluative charge of a metaphor is assigned not by the source image but by the feature activated in context, so one meteonym can denote both a destructive force and a positive phenomenon (*мұзжүрек* – insensitivity, *мұздай киіну* – impeccable neatness). Evaluative ambivalence is a systemic property of meteorological metaphor in both languages.

2. The grammatical realisation of meteorological metaphor differs systematically between the languages (205 English and 132 Kazakh metaphorical uses). In English the leading pattern is "meteonym + of + noun" (*a storm of protest, a hail of criticism*) – 100 uses (48.8%); in a further 31 cases (15.1%) the meteonym functions as a verb (*to storm off, to be snowed under*). In Kazakh the meteonym is never used as a verb: in 68 cases (51.5%) it is an agent-subject acting upon the human being (*аяз қысты, найзағай ізден табады*), and in 29 (22.0%) a component of compound and attributive patterns (*жел өкпе, мұзжүрек*). English thus represents weather as a process or a measure of intensity, Kazakh as an autonomous acting force.

3. The dominant direction of meteorological metaphor in both languages is anthropocentric: in all five thematic groups a natural phenomenon serves above all to characterise the human being. The macrospheres PSYCHIC WORLD and HUMAN account for 51 of 65 regular transfers in English (78.5%) and 26 of 41 in Kazakh (63.4%). English is richer in transfers (65 versus 41; in the ice group 18 versus 3), whereas Kazakh extends more often to abstract concepts and objects (36.6% versus 21.5%). Reverse transfers towards the weather are isolated: 11 in English (*eye of the wind, frostbite*) and a single ANIMAL → WIND model in Kazakh (*желмая*).

4. Regular transfers form a universal and a language-specific level, the latter predominating in both languages. Seventeen conceptual models are shared (WIND AS CHANGE, RAIN IS TEARS, SUDDEN MISFORTUNE IS LIGHTNING FROM ABOVE, THE GAZE IS ICE, etc.), accounting for 19 of the 65 English (29.2%) and 17 of the 41 Kazakh (41.5%) transfers. Specificity lies in the choice of target domains: in English, news and breath (*to get wind of*), politics, authoritative speech and everyday idiom (*to rain cats and dogs*); in Kazakh, character expressed through body parts (*жел өкпе, мұзжүрек*), warfare (*бұршақтап оқ ату*) and endurance (*қар төсенің мұз жастанып*). The same image may receive opposite evaluations: *not a snowball's chance in hell* (hopelessness) versus *қар жандыратын* (tenacity); rain mostly signals gloom in English but blessing in Kazakh (*алтын жаңбыр*).

5. National and cultural specificity is determined by different cultural paradigms. English metaphor draws on religious and moral idiom (*cold comfort, the wind of God*), the literature of polar expeditions (*devouring ice*) and the folk weather names of sailors and farmers (*Robin Hood's wind, lambing storm*); Kazakh metaphor draws on nomadic pastoral experience: the speed of the wind is gauged against the horse and the camel (*желмая*), the strength and character of a

phenomenon are conveyed by colour terms (*қара жел, сары аяз, қоңыр суық*), and endurance of cold becomes a measure of spiritual strength. Much of this specificity lies outside the metaphorical core identified by MIP/MIPVU: the borderline layer is comparable to the productive inventory (52 units against 65 transfers in English, 31 against 41 in Kazakh), and 19 of the 21 Kazakh terminological nominations form a colour code of intensity. The cultural paradigm determines which motivational features of a meteonym are activated in the language, and this accounts both for the divergence of target domains and for the opposite evaluations of the same images in the two languages.

Approbation of the research results.

On the dissertation theme, 14 articles were published, including 5 articles in collections of international conferences, 7 articles in scientific journals recommended by the Committee for Control of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan, 2 articles in journals indexed in the Scopus database, and 5 author's certificates were obtained:

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova, N.Yu. Zuyeva The analysis of meteorological metaphors in the Kazakh and English languages // Bulletin of Al-Farabi KazNU. Philological series, 2019. – No. 3 (175). – P. 129–135

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova, Semantic structure of nouns with the meaning "cold" in a metaphorical meaning // Bulletin of PSU named after S. Toraigyrov. Philological series, 2019. – No. 3. – P. 292–298

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova Distributive statistical analysis (DSA) in the study of semantic proximity of words of one lexico-thematic group (LTG)// "Eurasian Journal of Philology: Science and Education". Bulletin of Al-Farabi KazNU. Philological series No1 (173), – 2019, P. 65-71

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova, A.T. Alimbayeva Meteorological metaphor analysis in the British and Kazakh National Corpora // Bulletin of Kokshetau State University named after Sh. Ualikhanov. Philological series, 2019. – No. 4. – P. 131–136

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova, Meteorological lexis of the English language in the lexicographic aspect // Actual problems of teaching and studying translation studies and comparative studies: Proceedings of the international conference. – Almaty, 2019. – P. 92–95

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova The analysis of meteorological lexeme *қар / snow* in the metaphorical sense // Philology, linguodidactics and translation studies: topical issues and development trends: Collection of articles based on the materials of the international scientific and educational-methodical conference. – Almaty, 2019. – P. 70–72

– M.S. Ongarbayeva, R.M. Tayeva, T.P. Kolesnikova Corpus-based approaches to meteorological metaphor analysis in the English and Kazakh languages // Integration of the scientific community before the global problems of our time: Collection of articles based on the materials of the IV International Scientific and Practical Conference. – Sapporo, 2020. – P. 184–192

– M.S. Ongarbayeva, R.M. Tayeva, S.B. Yermakhanova, Kais Amir Kadhim Structural-semantic peculiarities of meteorological metaphor in the English and Kazakh languages // Opcion, 2020. – No. 91 (36). – ISSN: 1012-1587, indexed in the Scopus database. – P. 583–600

– M.S. Ongarbayeva, R.M. Tayeva, A.K. Valyeva Corpus linguistics in teaching foreign languages (on the example of the English language) // Philology, linguodidactics and translation studies: actual problems and trends of development: materials of the International Scientific and Educational Conference. – Almaty, 2020. – P. 130-132

– K.K. Pirmanova, M.S. Ongarbaeva On the National corpora of the Kazakh language // VIII International Conference on Computer Processing of Turkic Languages "TurkLang-2020", Ufa Federal Research Center of the Russian Academy of Sciences. – Ufa, Bashkortostan, Russia, 2020. – P. 6–10

– M.S. Ongarbayeva, R.M. Tayeva, B.N. Naubay, A.K. Valiyeva National specificity of meteorological metaphors in the English and Kazakh languages (based on corpus data) // Bulletin of Kokshetau State University named after Sh. Ualikhanov. Philological series, 2021. – No. 1. – P. 54–61

– M.S. Ongarbayeva, R.M. Tayeva, A.T. Alimbayeva Meteorological metaphors of "Atmospheric electrical and sound phenomena" in the English and Kazakh languages // Bulletin of Al-Farabi KazNU. Philological series, 2022. – No. 1 (180). – P. 129–135

– M.S. Ongarbayeva, R.M. Tayeva, R.T., A.K. Valyeva, Zh. Mirzabayeva, R.K. Sadykova Teaching meteorological lexis on the basis of national language corpora // XLinguae. – 2024. – Vol. 17, No. 2. – P. 191–199. – DOI: 10.18355/XL.2024.17.02.13, indexed in the Scopus database

– M.S. Ongarbayeva, R.M. Tayeva, A.T. Alimbayeva Meteorological metaphor as a reflection of cognitive and cultural models // BULLETIN of Ablai Khan KazUIR and WL. Series "PHILOLOGICAL SCIENCES", 2025. – No. 4 (79). – P. 286–299

– Author's certificate No. 66169 dated 12.01.2026: "List of sentences from National language corpora including meteorological metaphors in the Kazakh language";

– Author's certificate No. 53377 dated 13.01.2025: "Meteorological lexis of the Kazakh language";

– Author's certificate No. 44976 dated 23.04.2024: "List of BNC/COCA corpus sentences including meteorological metaphors in the English language";

– Author's certificate No. 34989 dated 21.04.2023: "Universal aspects of metaphorization based on the corpus of the English and Kazakh languages";

– Author's certificate No. 25605 dated 28.04.2022: "Meteorological metaphors of "atmospheric electrical and sound phenomena" in the English and Kazakh languages".

Structure of the dissertation.

The dissertation consists of an introduction, 3 chapters with corresponding conclusions, a general conclusion, a list of references, and appendices.

1 THEORETICAL AND METHODOLOGICAL FOUNDATIONS FOR THE METAPHOR STUDY

1.1 Traditional and contemporary metaphor theories

At first glance, awareness of the usual sort seems to apprehend the world around it directly and dependably, as though perception itself is the conclusion of the cognitive process. Only when it becomes obvious that things and phenomena may possess features that do not correspond to the visible or familiar world does doubt arise.

It is necessary to recognize that perception is not the identity of information, but its transformation through the cognitive capacities of the subject to have a more accurate comprehension of informational processes. In this way information is not simply given to us. It is built and reconstructed by the mind that perceives it.

As N.D. Arutyunova has observed, in metaphor we may find "*a key to understanding the foundations of thinking and the processes of creating not only a nationally-specific vision of the world, but also its universal image*" [1]. The habitual metaphor embedded in the word perception has played a constraining role in the history of thought. Its very lexical form tends to direct attention toward the static and receptive side of consciousness, forming the methodological foundation of positivism and phenomenologism. As a result, the dynamic and creative nature of perception – its role as an active process of constructing reality – has often remained in the background. Perception, therefore, should not be seen only as a passive reaction to external stimuli but as a precondition for cognition, a formative act through which the subject organizes the experiential world.

Etymologically, the notion of perception emphasizes the passive acquisition of sensory data, obscuring its other essential aspect: the active formation and transformation of meaning through individual and collective experience. In actual cognitive and communicative activity, both tendencies coexist-the passive reception of stimuli and the active reorganization of their content. Consequently, any comprehensive theory of human cognition must avoid portraying the subject as purely passive, emphasizing instead the interaction between perception and creative consciousness.

This duality was already evident in classical philosophy. Democritus distinguished between true and obscure knowledge: the first belonging to rational understanding, the second to sensory experience such as sight or touch. Immanuel Kant, in turn, drew a line between vague and distinct ideas, which in his philosophy correspond to different degrees of self-awareness and intellectual mastery. The ontological universality of metaphor grows out of this very synthesis of cognitive abilities. Metaphor mediates between rational and sensory forms of knowledge and works as a mechanism that links different modalities of information. Through metaphor, perception itself takes on linguistic form – the dynamic processes of thought are turned into the symbolic structures of language.

Since antiquity, philosophical thinking has continually returned to this link between sensory and intellectual knowledge. Thinkers like Parmenides, Heraclitus and Protagoras have dealt with the conflict between empirical experience

and reason. The same subject is revisited by modern cognitive linguistics through the concept of metaphorical mapping. A line from ancient epistemology to present cognitive metaphor theory shows a continuity between the philosophical and the linguistic approaches to human cognition.

In this sense, a metaphor can be considered objective if it has a functional role – structuring experience and conveying meaning, regardless of its originality or expressive power. Conversely, when its purpose is primarily aesthetic or emotional, the metaphor assumes a subjective and non-functional nature.

According to Sapir E. "More generally, a comparative approach – one that draws on evidence from a range of languages – allows for a more profound understanding of any linguistic phenomenon" [2]. The comparative study of meteorological metaphors fits this paradigm particularly well, since it reflects the interaction of language, culture, and cognition, and reveals how national worldviews are encoded through linguistic imagery.

Furthermore, the term metaphor itself can be interpreted across various psychosemiotic dimensions: as a conceptual model, as a stylistic device (either vivid or conventional), or in contrast with metonymy. The same linguistic structure may operate as a metaphor for the speaker, who transfers meaning by similarity, and as a metonymy for the listener, who interprets the same expression through contiguity or associative proximity.

It is significant for the present study that Aristotle is also the author of the first systematic treatise on natural phenomena, *Meteorologica*. In this work he developed the doctrine of the four primary elements – water, air, earth, and fire – transformed into one another, and described three types of atmospheric precipitation (rain, snow, and hail), which arise through the action of cold. The fact that the founder of the European theory of metaphor is also the author of the first systematic study of meteorological phenomena is a fortunate coincidence for the present dissertation, since it links its two principal objects – metaphor and weather lexis – back to a common origin in classical thought.

The problem of defining metaphor originates in ancient philosophy, attracting the attention of great thinkers such as Aristotle (384-322 BC). He was the first to systematically use the term in both "Poetics" and "Rhetoric", linking it to the art of imitation. In Poetics, Aristotle defined metaphor as "the transference of a name from genus to species, from species to genus, from one species to another, or on the basis of analogy" [3]. This classical interpretation laid the foundation for all subsequent philosophical and linguistic conceptions of metaphor as both a rhetorical and cognitive phenomenon.

In a broad sense, Aristotle's concept of metaphor is almost indistinguishable from other rhetorical devices such as hyperbole, synecdoche, comparison, personification, or assimilation, since in each case there occurs a transfer of meaning from one word or concept to another. Virtually all subsequent theories of metaphor have been grounded, in one way or another, in this idea of semantic transference [4, p. 135].

Even before Aristotle, the Greek orator Isocrates (436-388 BC) had drawn

attention to the phenomenon of metaphor. He discussed the problem of its definition and described metaphor as a means of figurative reproduction of reality, emphasizing its communicative and stylistic potential.

Among ancient Roman thinkers, Cicero, Horace, and Quintilian regarded metaphor primarily as a decorative figure of speech. Quintilian defined metaphor as a *shortened comparison*: whereas comparison explicitly juxtaposes two phenomena, metaphor replaces one term with another. Cicero reinforced this notion, stating that "metaphor is a comparison reduced to one word" [5].

Subsequent scholars, drawing from the classical rhetorical tradition, expanded the notion of metaphor across diverse linguistic and cultural settings, associating it not merely with comparison but also with more extensive processes of semantic and conceptual transmission. The distinguished Russian academic M.V. Lomonosov saw metaphor in literary rhetoric as a transfer of meaning based on similarity between objects, phenomena, or concepts, and as a category that covers a wide range of figures of speech [6]. The Ukrainian and Russian philologist A.A. Potebnja, one of the leading figures in Slavic linguistic thought, described metaphor as a condensed comparison, treating it as a central figure of speech and as a reflection of how the human mind works [7].

In the history of philosophical and linguistic thought, metaphor has been the object of sustained reflection from the seventeenth century onwards, gradually evolving from a marginal rhetorical device into a central mechanism of human cognition. Logical-philosophical, linguistic, and stylistic perspectives on metaphor developed in close interaction with one another, and a chronological overview of the principal contributions makes it possible to trace this evolution.

In the seventeenth century, English rationalist philosophers such as T. Hobbes (1588-1679) and J. Locke (1632-1704) held a markedly negative view of metaphor. They condemned figurative language as imprecise and misleading, arguing that it interferes with logical clarity. For them, metaphorical expressions existed alongside literal meanings but were less efficient and less suited to rational discourse. Later positivist, pragmatic, and empiricist thinkers, including those who worked within logical positivism and analytic philosophy, would carry on and extend this skepticism toward figurative language [8, p. 10-11].

A radically different perspective came at the turn of the nineteenth century from the founder of general linguistics and the philosophy of language, Wilhelm von Humboldt (1767-1835). He stressed the universality and pervasiveness of metaphor, arguing that it belongs to every language at every stage of its development. W. Humboldt saw language as a living, dynamic being that was directly related to human cognition, national identity, nature and essence. His ideas had a considerable impact on subsequent linguistic research and paved the way for anthropological and ethnolinguistic approaches to the study of language [9].

From the late nineteenth century onwards, metaphor became an increasingly important subject of logical-philosophical, linguistic, and stylistic research. F. Nietzsche (1844-1900), E. Cassirer (1874-1945), José Ortega y Gasset (1883-1955), and Paul Ricoeur (1913-2005) regarded metaphor not merely as a rhetorical

ornament but as a fundamental expression of human thought and cognition. Their works collectively emphasized the metaphorical nature of thinking, revealing that metaphor functions as a key mechanism for conceptualizing reality.

The German philosopher Ernst Cassirer defined metaphor as a conscious transference of a concept's name into another domain – a cognitive operation based on similarity or indirect analogy between conceptual spheres [10, p. 56]. In his philosophy of symbolic forms, metaphor thus bridges conceptual systems, linking perception, cognition, and culture.

The Spanish philosopher José Ortega y Gasset explored what he termed the scientific function of metaphor. According to his view, "in order to be understood, a scientist chooses a word whose meaning can inspire a new concept. A term acquires a new meaning through and with the help of the old one, which is retained by it" [11, p. 69]. Ortega y Gasset observed that science effectively inverts the traditional function of metaphor: it begins by fully identifying two seemingly different objects and then seeks to reveal the partial equivalence between them that may later be recognized as true [11, p. 74].

In the twentieth century, metaphor became a central object of study within logic, philosophy, linguistics, and stylistics. Thinkers like I.A. Richards, M. Black, D. Davidson, and J. Searle changed everything. They moved metaphor from the realm of ornament into the realm of cognition.

I.A. Richards (1893-1979) was among the first to emphasize the interaction of two disparate concepts within the structure of a metaphor. He defined metaphor as "two thoughts of different things active together and supported by a single word or phrase, whose meaning arises from their interaction" [12, p. 93]. I.A. Richards thus introduced the idea of interaction as the core of metaphorical meaning.

A further development of metaphor theory can be traced in the work of P. Wheelwright (1901-1970), who proposed a dual classification of metaphors into epistrophic and diaphoric types. Epistrophic metaphors expand meaning through comparison, whereas diaphoric metaphors generate new meaning through juxtaposition and synthesis. According to Wheelwright, diaphoras are "newly emerged metaphors" that create a sense of semantic tension or emotional dissonance in the listener, while epistrophes represent conventionalized metaphors that have lost their emotional charge and no longer challenge the listener's conceptual expectations [13].

Developing I.A. Richards's ideas, M. Black (1909-1988) proposed a two-component model consisting of the subsidiary subject, which provides the metaphorical image, and the system of associated commonplaces, which constitutes the predicative aspect of metaphorical meaning [14, p. 39]. His well-known example, "Man is a wolf", illustrates that understanding a metaphor requires not just the literal meaning of wolf but the culturally entrenched network of attributes connected with it – ferocity, aggression, danger, and wildness. Through this interaction, new meaning is created rather than merely transferred.

An alternative perspective was advanced in the second half of the twentieth century by the American philosopher D. Davidson (1917-2003), who denied the

existence of hidden metaphorical meaning. According to Davidson, metaphors "mean only what their words mean", and their effect lies not in additional semantic content but in their use within discourse [15]. Extending this view, J. Searle argued that a metaphor conveys something different from the literal sense of its words not because their lexical meaning changes, but because the speaker intends to communicate a special, context-dependent meaning [16, p. 307].

The present survey reveals the shift of understanding of metaphor from the old rhetorical strategy of comparison and semantic transference to a complex cognitive and linguistic phenomena. And the history of studies of metaphor reflects this change. What began as an esthetic and stylistic figure in Aristotle, Cicero and Quintilian slowly morphed into something far more basic – a process of thought, a type of linguistic invention. This was the work of philosophers from Democritus and Kant to Humboldt, Cassirer, and Ortega y Gasset. Metaphor, for everyone of them in their own manner, was an intellectual endeavor. For them, it represented something essential: the way a thinking subject engages the world.

Their insights made it possible to consider metaphor not as a decorative element of speech, but as a universal way of thinking, with the help of which the human mind constructs experience and understands reality.

The change of the rhetorical and semantic to the cognitive and functional interpretation of metaphor was characterized by the development of linguistic and philosophical theories by I. A. Richards, M. Black, D. Davidson and J. Searle in the XX century [12; 14; 15; 16]. Metaphor is shown to be not just a manner of naming but also a way of conceptual transformation and information processing by interaction theory and later pragmatic perspectives [12-17]. Thus, the diachronic examination of the theory of metaphor reveals its twofold nature: it is both a linguistic phenomenon and a cognitive tool, reflecting the unity of perception, thinking and language [20; 23-25; 77]. This synthesis lays the methodological basis for the present research, seeing metaphor as a cognitive process reflecting national and cultural conceptualizations of the world [16-19; 24; 25; 77; 79-81].

The analysis of philosophical, rhetorical and linguistic traditions in the first chapter shows the long and deep historical development of the metaphor – from ornamented figure of speech to a universal cognitive mechanism of meaning construction. Classical rhetoricians, ancient thinkers and modern philosophers set the groundwork for understanding metaphor as a language and cognitive phenomenon.

However, despite this rich theoretical pedigree, past interpretations mostly dealt with metaphor from a semantic or stylistic point of view, concerning its aesthetic, logical or communicative purposes. Only in the late twentieth century was metaphor regarded as a mental and conceptual process, important to the way human beings perceive, categorize and interpret reality.

The rise of cognitive linguistics was a new stage in the evolution of the idea of metaphor that involved knowledge from philosophy, psychology and neuroscience. Metaphor, within this paradigm, was no longer seen as a secondary or ornamental element, but was reinterpreted as a system of cognition that forms human experience

through mappings between conceptual domains. This transition from rhetorical to cognitive understanding of metaphor opened new perspectives for linguistic analysis, including the possibility of empirical verification through corpus linguistics and cross-cultural comparison.

A crucial early step toward a cognitive interpretation of metaphor was made in 1979 by the American linguist M. Reddy. Analysing how English speakers talk about communication, he showed that everyday language systematically construes ideas as objects, words as containers, and communication as the sending of these containers along a channel – the pattern he called the conduit metaphor. M. Reddy's insight was that such metaphorical structuring is not occasional or ornamental but pervades ordinary language and reflects the way speakers conceptualize abstract processes. In demonstrating that a single underlying metaphor governs a large family of conventional expressions, his work directly prepared the ground for the notion of conceptual metaphor developed by G. Lakoff and M. Johnson a year later [17, p. 15].

A year later, in their landmark 1980 monograph *"Metaphors We Live By"*, G. Lakoff and M. Johnson raised a question that became fundamental for cognitive linguistics: which concepts are primary for human consciousness – those perceived directly, without reference to metaphor. In their view, these are primarily basic spatial concepts, such as UP and DOWN, which are directly associated with orientation and motor activity. In addition, they pointed to systematically correlated concepts such as OBJECT, SUBSTANCE, and CONTAINER, which form the basis for the conceptualization of abstract entities not directly related to physical interaction with the environment.

G. Lakoff and M. Johnson identified three main types of conceptual metaphors:

– orientational metaphors, which organize experience in spatial terms (HAPPY IS UP, SAD IS DOWN);

– ontological metaphors, which enable people to conceptualize abstract phenomena as entities (THE MIND IS A MACHINE);

– structural metaphors, which create complex mappings between conceptual domains (ARGUMENT IS WAR) [18].

The novelty of their approach lay primarily in the reconceptualization of the very nature of metaphor: traditionally, metaphor had been interpreted as a figure of speech (within rhetoric since ancient times), a mechanism of semantic development (within historical semantics), or a type of figurative meaning (within synchronic lexicology and lexicography).

By the mid-1980s, the idea that metaphor serves as a cognitive mechanism for generating new knowledge was further developed by E. MacCormac in his 1985 work "A Cognitive Theory of Metaphor". He argues that metaphors function as cognitive processes through which we deepen our understanding of the world and formulate new hypotheses [19, p. 360]. According to E. MacCormac, a metaphor emerges from a cognitive act of juxtaposing two or more seemingly unrelated referents, a process that gives rise to semantic and conceptual innovation through their interaction [19, p. 363].

The final stage in the formation of cognitive linguistics as an independent scientific movement also dates to the second half of the 1980s. During this period, a large number of studies were carried out within this paradigm, establishing its theoretical foundations. The process of institutionalization culminated in the "*First International Cognitive Linguistics Conference"*, held in Duisburg, Germany, in the spring of 1989. The participants of this symposium founded the "*International Cognitive Linguistics Association"* (ICLA), officially marking the recognition of cognitive linguistics as a distinct scientific discipline. Researchers such as J. Miller, P.N. Johnson-Laird, G. Lakoff, R. Langacker, G. Fauconnier, and L. Talmy laid the theoretical and methodological foundations for the cognitive approach to metaphor during these years [20, p. 7].

In the early 1990s, several refinements to the cognitive model began to appear. A. Ortony (1993) argued that metaphor cannot be reduced to an implicit comparison: in his view, metaphor is a type of linguistic usage, whereas comparison is a type of psychological process [21]. Thus, A. Ortony separates metaphorical expression from cognitive comparison, underscoring that metaphor involves a creative restructuring of meaning rather than a mere identification of similarity.

In the same period, G. Fauconnier (1994) advanced the influential blending theory, which reconceptualizes metaphor as a process of conceptual integration rather than simple mapping. According to G. Fauconnier, the human mind operates not with two but with several mental spaces that interact dynamically. He distinguishes the source input space, the target input space, the generic space (shared abstract structure), and the blended space, in which new meaning emerges through the synthesis of information from different domains [22]. In this model, metaphors are products of conceptual integration, revealing the multidimensional creativity of human thought.

Around the same time, Yu.D. Apresyan (1995), a representative of the Moscow semantic school, critically assessed the Lakoff-Johnson theory. He argued that it lacks a clear linguistic and semantic link between the source and target domains, since metaphor in their model is treated primarily as a final cognitive product rather than as a dynamic linguistic process. Yu.D. Apresyan also noted that some of their examples, such as LOVE IS A JOURNEY, are insufficiently substantiated and rely on occasional expressions (e.g., "We are at a crossroads", "You are walking on the highway of love"). In his opinion, many other spheres of human activity – discussions, negotiations, or evaluations – could equally be compared to a journey, which calls for deeper linguistic justification [23]. Despite these critical remarks, Yu.D. Apresyan's observations did not undermine the theory but instead contributed to its further development and refinement, stimulating cognitive linguists to pay closer attention to the empirical linguistic evidence underlying conceptual mappings.

At the turn of the century, a significant contribution to the study of metaphor and its cognitive basis came from the collective volume "*Metaphor and Metonymy at the Crossroads"* (2003), which reflected the interdisciplinary development of metaphor studies. One of its contributors, A. Barcelona (2003), defines metaphor as

a cognitive instrument, emphasizing that during metaphorization specific features of one conceptual domain are systematically projected onto another, resulting in new ways of organizing and interpreting experience [24, p. 3].

Shortly afterwards, W. Croft and D.A. Cruse (2004) argued that G. Lakoff's two-domain model overlooks one of metaphor's most distinctive features – its capacity for conceptual blending, that is, the merging of multiple domains into a unified conceptual space [25]. This observation aligns with G. Fauconnier's blending theory and reflects a broader move within the field toward more dynamic, multi-space accounts of metaphor.

In the late 2000s, A. Goatly (2007) defined metaphor as a process that occurs when a discourse unit is used as an unconventional reference to an object, process, or concept, or is encountered in an unconventional way, and this unconventional act or collision is interpreted according to the main similarities, correspondences, or analogies between the conventional referent and the new, non-traditional one [26]. This interpretation brings out the dynamic and contextual nature of metaphor, treating it as an interactional process rather than a static linguistic substitution.

Two years later, A. Wierzbicka (2009) made a different point. While G. Lakoff and M. Johnson convincingly show the cognitive role of metaphor in human thought, their model does not pay enough attention to the semantic precision of words or to the role of linguistic form in the construction of meaning [27].

Among contemporary Western cognitivists, Z. Kövecses holds a particularly prominent place. In his monograph *"Metaphor: A Practical Introduction"* (2010), he draws out the close relationship between metaphor and metonymy and shows how the two often interact in shaping figurative meaning. Expressions such as upset (for anger) or have *cold feet* (for fear) are good examples – they show how conceptual metonymy operates inside the framework of metaphor. The first corresponds to the metonymic model PHYSICAL AGITATION STANDS FOR ANGER, while the second exemplifies the metaphor DROP IN BODY TEMPERATURE STANDS FOR FEAR. Similarly, idiomatic expressions like boiling with anger exemplify the conceptual metaphor ANGER IS A HOT FLUID; burning with love reflects LOVE IS FIRE; and to be on cloud nine represents HAPPINESS IS UP [28].

In the same decade, a new generation of researchers – Z. Kövecses, R. Gibbs, J. Steen, and A. Barcelona – expanded G. Lakoff and M. Johnson's framework by incorporating cross-cultural variation, contextual motivation, and corpus-based verification of metaphors. Their work confirmed that conceptual metaphors are not arbitrary but systematically reflected in linguistic data, providing a bridge between cognitive theory and linguistic analysis.

G. Lakoff and M. Johnson were significantly criticized for using de-contextualized sentences as proof of the main conceptual metaphors. Even so, their key achievement should not be underestimated: they showed that metaphor is not limited to the linguistic sphere but covers the domain of thinking as well. This theory has gained wide currency and continues to be developed by many cognitivists today.

Contemporary metaphor study might thus be characterized by two distinct views. The cognitive theory interprets the metaphor as information transfer from one semantic field to another and reveals the fundamental, conceptual mechanisms underlying the origin of the metaphor – the plane of content. The semantic perspective, in its turn, considers metaphorization to be the contact of two concepts from different semantic fields. The linguistic processes of metaphorization – the plane of expression.

The contemporary approaches mentioned above have combined helped to constitute the cognitive category of metaphor, and to demonstrate the role of metaphor in conceptual categorization. Metaphor is the way humans make sense of new and abstract things in terms of familiar experience. Metaphor is a bridge of cognition between the known and the unknown. It also demonstrates how language functions to encode and expand our experience of the universe.

The current cognitive paradigm through the confluence of philosophical, linguistic and psychological insights provides a unifying paradigm of understanding metaphor as a process of conceptual mapping and knowledge formation.

1.2 Metaphor in the national tradition of linguistic studies

The philosophy of metaphor in Kazakhstan has developed under the powerful impact of both the Western and Russian traditions. In the light of these theoretical and methodological foundations, Kazakhstani scholars have actively engaged with cognitive and conceptual approaches to metaphor, adapting them to the local linguistic and cultural environment and making them their own. Their work makes one thing clear: the study of metaphor is no longer only a subject of theoretical linguistics – it now addresses issues of national worldview, cognition, and speech analysis.

In Kazakh linguistics, metaphor has been a recurrent object of investigation across several generations of scholarship, but research has so far developed along lines that only partially intersect with the topic of the present dissertation.

The theoretical foundation for the study of figurative meaning in Kazakh was laid in the second half of the twentieth century by K. Zhumaliev, who treats metaphor as a universal linguistic category deeply embedded in both the system and the art of speech. He writes that metaphor is “a general linguistic category that expresses all spheres in our art of speech, deeply rooted in the nature of language; the use of the word in figurative sense” [29, p. 2].

B. Kh. Khassanov developed this foundation by classifying metaphors into two major types: individual metaphors, originating from the speech of specific authors, and traditional folk metaphors, which stem from collective cultural experience. Although distinct in origin, the former often develop on the basis of the latter, reflecting the continuity between individual creativity and folk metaphorical tradition [30, p. 138].

Continuing this descriptive line, Sh. Mukhamedzhanov, in his 1968 thesis “Figurative meaning of words in modern Kazakh language”, defined the process of metaphorization as “the transfer of word meanings, based on mutually similar

features of two or more objects or phenomena" [31, p. 136]. Sh. Mukhamedzhanov's work can be seen as one of the early systematic attempts to describe metaphor within the framework of Kazakh linguistic semantics, focusing on the mechanism of semantic shift grounded in similarity.

In 1973, R. Sadykbekov approached metaphor from a different angle, drawing attention to the question of its lexical status. He argued that, in addressing word polysemy, it is necessary to determine the status of a word formed with the help of a metaphor – whether it carries a meaning used by an individual author or functions as a generally recognised lexical meaning; only on this basis, he maintained, can one properly distinguish metaphorical meaning from metaphorical use and account for the reasons behind its occurrence [32]. On the types of metaphor he observed that "poetic and individually existing metaphors are understood as metaphorical uses i.e. these are the dead metaphors, and national metaphors and the linguistic metaphors are understood as metaphorical meanings" [32, p. 11]. R. Sadykbekov's classification thus reveals an important distinction between individual (occasional) and national (conventional) metaphors, reflecting both the vitality and the systemic nature of figurative meaning in Kazakh.

Developing this typological line, A. Bolganbayev (1975) identified three types of metaphor: linguistic (language) metaphor, stable metaphor, and personal (individual) metaphor. The traditional metaphor, according to the scholar, depends on the general national character of linguistic metaphor; the stable metaphor is used to convey thought clearly to the listener and often appears in the works of folk poets; and the individual metaphor is created on the model of the traditional one and exists in the works of a particular poet or writer [33, p. 22–29]. This approach demonstrates the continuity between folk and authorial metaphor, emphasising the coexistence of collective and individual creativity in Kazakh figurative expression.

T.A. Mukhamedzhanov's work examines the problems of lexical secondary nomination in the Kazakh language – the ways in which a word acquires new, derived meanings, and the types of such semantic transfer [34].

One of the most comprehensive definitions of metaphor in Kazakh linguistics belongs to R. Barlybayev (1982), who characterises it as "the transfer of a name from one object to another on the basis of external or internal similarity". He further distinguishes two functional types: linguistic (systemic) metaphors, which are fixed in the lexical structure of the language, and poetic (contextual) metaphors, which arise dynamically in speech. For R. Barlybayev, this regular process of meaning transfer illustrates the linguistic embodiment of human cognition and the continuity of metaphorical creativity in Kazakh [35, p. 88]. Works of this kind developed the conceptual apparatus for describing metaphor as a linguistic phenomenon and remain a standard point of reference in Kazakh stylistic and lexicological scholarship.

Academician Z. Kabdolov (1983) defined metaphor from a broader linguistic and rhetorical standpoint, describing it as the use of words with a changed meaning that defines an object or phenomenon by comparing it with other similar objects or phenomena, thereby enhancing expressive influence and expanding semantic

content [36, p. 201].

T. Konyrov (1985) extended this rhetorical understanding by grounding metaphor firmly in comparison, noting that “at the root of each comparison, a metaphorical meaning is seen” [37]. His idea resonates with both classical and cognitive interpretations, reaffirming that metaphor arises from analogical associations between entities of different domains.

A decade later, L.B. Nurzhekeeva (1991) introduced a fine-grained morphological criterion for distinguishing metaphor from simile. She observes that *қораздай* (“like a rooster”) is a comparison, recognisable by the affix *-дай*, which marks comparison, whereas *қораз* (“rooster”) used figuratively is a metaphor – a compressed comparison that lacks such special affixes. Adding the affixes *-дай/-дей, -тай/-тей, -ша/-ше* or the particles *сияқты, тәрізді* (“like, as if”) turns a metaphor back into a comparison. Her analysis demonstrates that metaphorization in Kazakh is closely tied to the agglutinative nature of the language, where formant markers play a decisive grammatical role [38].

By the turn of the century, attention began to shift toward the conceptual and cognitive dimensions of metaphor. A. Sybanbayeva (1999) treats the conceptual metaphor as an important mechanism of cognitive enrichment, describing it as “a means of expanding the conceptual and semantic apparatus of a language, through which new semantic layers are formed and new linguistic names emerge” [39, p. 73].

In the same year, G.K. Rezuanova (1999) provided a systematic account of the principal mechanisms by which metaphorical meaning is created in Kazakh:

– Personal identity: *адамның көзі, иненің көзі, терезенің көзі* (human eye, needle eye, window eye);

– Relation to the same species: *адамның аузы, сөмкенің аузы* (person's mouth, mouth of a bag);

– Similarity in characteristic features: *тұз – ас тұзы* (salt – table salt);

– Resemblance by movement: *гүл ашылды, күн ашылды* (the flower blossomed, the sky cleared);

– Positional resemblance: *адамның басы, ағаштың басы* (human head, top of a tree);

– Colour analogy: *ақ (сүт)* (white, milky);

– Qualitative resemblance: *жылы сөз – дауыс, тамақ* (warm word – voice, food) [40, p. 46].

These examples show that metaphor in Kazakh operates on multiple semantic levels – from perceptual and positional similarity to associative, functional, and emotional analogy – revealing the polystructural nature of metaphorization in the Turkic linguistic context.

Around the same period, B. Kasym (2000) drew attention to the role of metaphor in the creation of complex words, arguing that metaphor is a universal phenomenon whose versatility is manifested in the structure and functioning of language, and that the study of word-formation from the standpoint of metaphor “remains unnoticed and not disclosed”, since metaphor is too often viewed merely

as a means of pictorial, artistic expression [41, p. 255]. B. Kasym's observation foregrounds an often overlooked aspect of metaphor: its productive role in word-formation, where it serves not only as a stylistic but also as a lexical-derivational mechanism.

Also in 2000, I.S. Muratbayeva extended the study of metaphor into the sphere of terminology. She observes that metaphorization in terminological systems is a multilevel and complex process: it begins with the expansion of a word's meaning, then enters a period of acquiring additional meanings, and the term built on a metaphor forms imagery in a model form that allows an object or phenomenon to be grasped more deeply. Over time the figurative component fades and an unambiguous term emerges, while the transfer of such metaphorical terminology into colloquial speech is largely mediated by journalists, writers, and public figures [42]. I.S. Muratbayeva thus demonstrates that metaphor functions not only as a stylistic phenomenon but also as an epistemological tool contributing to the evolution of scientific and professional terminology.

S.K. Sansyzbaeva (2001) moved the discussion into the social and communicative sphere through her study of zoomorphic metaphors, which she terms "metaphors-frequentalia". She argues that their active use in discourse represents a universal strategy of evaluation and social characterisation: through zoomorphic imagery, language depicts human qualities by reference to the animal world. Such metaphorization, as S.K. Sansyzbaeva shows, may arise not only from behavioural similarity but also in relation to political roles, social hierarchy, professional identity, or ethnic belonging [43].

A practical and example-rich definition was offered by A. Aigabylov (2004), who describes metaphor as the transfer of a name from one object or phenomenon to another on the basis of similarity in kind, type, or action. He illustrates this with the polysemy of *көз* ("eye") in *иненің көзі* ("eye of a needle") and *бұлақтың көзі* ("source of a spring"), and with transfers such as *өткір пышақ – өткір сөз / өткір ой* (sharp knife – sharp word / *sharp mind*), *құстың қанаты – әскердің қанаты* (bird's wing – flank of an army), and *салқын су – салқын сөз / салқын жүз* (cool water – cold word / cold face) [44, p. 10]. Through these examples A. Aigabylov shows how metaphor transforms concrete sensory experience into abstract and evaluative meaning, reflecting the collective worldview of the Kazakh people.

A decisive cognitive turn arrived in Kazakh linguistics in the early 2000s, when scholars began to introduce G. Lakoff and M. Johnson's principles into Kazakh analysis and to reframe metaphor not as a stylistic device but as a mechanism of conceptualisation. Within this framework, G.N. Zaisanbayeva (2004) argues that metaphorization serves as a means of replenishing the lexical stock through word-formation patterns. However, this process is neither simple nor mechanical. Metaphor represents a complex cognitive phenomenon in which associative human thinking plays a key role, creating new linguistic names through analogy, comparison, and figurative re-interpretation of semantic features [45, p. 21].

G.S. Kussainova (2006) developed the cognitive interpretation further by

treating metaphor as a hidden comparison. She argues that comparison as a means of perception is effective only when homogeneous objects are juxtaposed by their essential attributes, and that, because the compared systems remain independent, their correlation cannot yield a single unified concept. Metaphor, by contrast, functions as an autonomous lexical unit that expresses a holistic concept and thereby expands the conceptual apparatus of the language. This functional independence, in her account, distinguishes metaphor from comparison and underlines its cognitive depth [46, p. 14].

Alongside this cognitive line, research into the aesthetic and cultural manifestations of metaphor continued to develop. F.Z. Seitova (2007) focuses on artistic metaphor and its role within the visual arts, identifying three main categories of artistic metaphor in which man, inanimate nature, and fauna serve as source spheres. Among them, the model MAN → ART proves the most productive, reflecting the human-centred nature of artistic conceptualisation [47, p. 136-137]. Read together, G.S. Kussainova and F.Z. Seitova illustrate the unity of the cognitive and aesthetic aspects of metaphorization – the former emphasising conceptual expansion, the latter the figurative shaping of the artistic world.

Zh.A. Abitzhanova (2009) approached metaphor from a cultural-historical standpoint, treating it as a mirror of national consciousness. For her, "the history of a metaphor is the history of people, history of thought and consciousness", and the metaphors found in the Orkhon-Yenisei monuments reflect the life, cognition, and worldview of the ancient Turks, preserving a large number of indirectly derived metaphors within this ancient cultural text [48, p. 126]. Her analysis is particularly significant because it extends metaphor research into the deepest accessible historical layer of the Turkic tradition, linking ancient monuments with modern figurative thought.

D.B. Kalkabekova (2010) turned to metaphorical expression in Kazakhstani media, introducing the notion of a metaphoric coefficient (C), defined as the sum of metaphoric frequency (F), metaphor intensity (I), and metaphor content (D). This coefficient measures the metaphoric force of political discourse and allows the productivity of metaphorical nomination to be determined within specific semantic sub-fields – *Person, Society, Nature, and Artefacts* – that serve as the primary sources of metaphor in Kazakhstani publicistic texts [49].

The same year saw the work most directly relevant to the present study. B.D. Nygmetova (2010) characterises metaphor as both universal and deeply national: because it stems from human mental activity, identical images recur across languages, yet at the same time it reflects the system of spiritual, moral, and ethical values produced by a particular collective consciousness, so that culture and cultural background strongly shape the selection and functioning of metaphorical structures [50, p. 123]. Her thesis on metaphors in meteorological forecast texts in Russian and German is, to our knowledge, the first systematic attempt to examine metaphor specifically within meteorological discourse: it identifies the source domains most productive for forecast texts and establishes the dependence of metaphorical density on the genre of the forecast. For the purposes of the present dissertation, however,

its scope is limited – it operates within the Russian-German pairing and within a single, narrowly defined discourse type, leaving open the question of how meteorological metaphors function across discourse types and across a wider typological range of languages.

M.V. Trichik (2014) links the rising interest in metaphor to the cognitive revolution in linguistics, noting that with the emergence of multidisciplinary research metaphor came to be investigated not only as a linguistic but also as a cognitive and pragmatic phenomenon, and that conceptual metaphor has acquired a concept-producing function, especially in political speech. Despite the differences between traditional and cognitive interpretations, both, in M.V. Trichik's view, share an anthropocentric foundation: metaphor – whether rhetorical or conceptual – incorporates linguistic competence into the conceptual model of the world and shapes the national linguistic worldview [51, p. 62].

A.K. Ormanbekova (2016) addressed precisely the typological question that B.D. Nygmetova's work had left open, offering a three-way comparison of the verbalisation of the weather concept in Russian, Kazakh, and English. Her study describes the conceptual structure of the weather concept together with its lexical exponents and phraseological resources in each language. Methodologically, however, it remains within the conceptual tradition outlined above: it is concerned primarily with the architecture of the weather concept rather than with the dynamics of metaphorical extension from meteorological source domains to non-meteorological targets [52].

Finally, Zh.K. Omirbekova (2018) emphasises the integrative role of metaphor in the enrichment and stylistic development of Kazakh. Analysing metaphors in A. Nurpeisov's novel “The Last Duty”, she concludes that only the combination of semantic and stylistic approaches can fully reveal how figurative meanings emerge and evolve in the national linguistic consciousness, describing metaphor as “a linguistic tool that enhances expressive imagery and strengthens the stylistic tone of the text” [53].

Taken together, these studies reveal both the depth of Kazakh metaphor scholarship and its characteristic concentration. From K. Zhumaliev to T. Konyrov, scholars articulated the universal and systemic side of metaphor – its rootedness in the nature of language, its rhetorical power to expand meaning, and its grounding in comparison. From the 1990s onward, the cognitive turn redirected attention toward conceptualisation, while B. Kasym, G.K. Rezuanova, and A. Aigabylov anchored the discussion in specifically Kazakh material, showing how concrete lexemes (*көз, өткір, қанат, салқын*) encode the collective sensory and evaluative experience of the people. A substantial part of this research, however, remained tied to literary and artistic discourse, and even the studies closest to the present topic – B.D. Nygmetova's *meteorological forecasts* and A.K. Ormanbekova's *weather concept* – either restrict themselves to a single discourse type and language pair or describe conceptual architecture rather than the dynamics of metaphorical extension.

Metonymy, as a related but distinct trope, had already been examined by L. Nurzhekeeva (1991), whose morphological criteria for separating the two figures

remain a useful point of reference.

Despite this conceptual reorientation, the empirical centre of gravity of Kazakh metaphor research has long remained in literary and artistic discourse. The metaphor of prose and poetry was approached from stylistic, structural, and cognitive angles by E.R. Kogai (1996) [54], L.T. Eloeva (1999) [55], A.D. Eskaraeva (2002) [56], A.M. Tenbaeva (2004) [57], and S.E. Karibaeva (2010) [58].

The 2010 dissertation by A.M. Toleubayeva, titled linguocognitive and linguocultural aspects of metaphor in a literary work examined deeply national, specifically Kazakh metaphors as linguocultural lacunae – that is, "voids" or semantic gaps for the English-speaking reader, who simply does not have analogous concepts in their culture [59].

This concentration is itself telling: until recently, the natural home of metaphor research in Kazakhstan was the language of fiction, and the figurative potential of non-literary domains – including the meteorological – remained largely unexplored.

More recently A.Zh. Zhaparova [60] have examined metaphor as a linguistic-cultural gap within translation studies, raising the methodologically rich question of how culturally embedded metaphors travel – or fail to travel – across languages.

The method of metaphorical modeling was developed in the research work of K.K. Kenzhekanova [61].

Only gradually did research extend beyond the literary frame into more specialised domains. Metaphorised terminology was analysed by I.S. Muratbayeva (2000) and zoomorphic "frequentalia" metaphors by S.K. Sansyzbaeva (2001); political metaphor was taken up by K.S. Kussainova (2006) and later by M.V. Trichik (2014), aligning Kazakh scholarship with the international tradition of critical metaphor analysis; personification in the media was examined by D.B. Kalkabekova (2010); and the figurative layer of the Orkhon-Yenisei monuments was reconstructed by Zh. Abitzhanova (2009), reaching into the deepest accessible stratum of the Turkic tradition.

Collectively, these guidelines affirm that the methodical, corpus-driven examination of meteorological metaphors across typologically disparate languages continues to be an unaddressed area in Kazakh linguistics.

The specific gap that this dissertation addresses is located right here. The importance of metaphor in illustrating cultural perception is especially apparent in the examination of meteorological vocabulary, which, as many researchers have demonstrated, encapsulates shared perspectives on nature, climate, and worldview. The meteorological terminology in English, Kazakh, and Russian has garnered the interest of several scholars, whose studies can be categorized into various thematic areas discussed below.

The Russian linguistic tradition has examined meteorological terminology through two interrelated perspectives: diachronic, which delineates the historical development of weather lexicon, and dialectological, which reflects its geographical and cultural diversity. Collectively, these guidelines formed the empirical foundation upon which further semantic and cognitive research would be built.

The diachronic research trajectory is primarily linked to the contributions of

L.E. Scherbakova (1983) [62] and V.M. Kasyanova (1984) [63]. L.E. Sherbakova examined the development of meteorological vocabulary from Old Russian to contemporary Russian, illustrating that the lexicon of weather is not a static historical record but a layered system where ancient Slavic origins, religious borrowings, and subsequent scientific terms coexist. V.M. Kasyanova, later, redirected the emphasis from chronology to systematic organization, demonstrating that the meteorological vocabulary synergestic: one provides historical context, while the other offers a contemporary framework. The dialectological approach was chiefly advanced by I.N. Suspitsina (2000) illustrated the regional diversity of meteorological terminology in Russian dialects and uncovered a systematic correlation between geographical factors and the lexical richness of specific semantic categories – in areas where a certain weather evenr is climatically prominent, its vocabulary is generally more developed and nuanced [64].

Closely related to this is the ethnolinguistic direction of research – the so-called people's meteorology, outlined in the works of M.M. Kondratenko (1994) and A.A. Chemercheva (2006). Previously, M.M. Kondratenko [65] laid the methodological foundations for the consideration of folk weather knowledge as a single cognitive system, and not as a sum of superstitions, and this approach was continued by A.A. Chemercheva [66], who showed how this information is encoded in proverbs, weather signs and ritual formulas as a carrier of the naïve picture of the world. These studies are of particular importance for the present dissertation, as they make clear the cultural embeddedness of meteorological lexis – a quality that is especially obvious when weather terms reach the domain of metaphor.

At the turn of the millennium, the comparative studies of the meteorological vocabulary in Russian and other languages have become a special direction and have generated a great amount of research. They share the methodological assumption that weather vocabulary, while seemingly universal, encodes culturally distinctive patterns of conceptualization that are discernible only in cross-linguistic juxtaposition.

The first comparative study of the meteorological vocabulary in English and Russian was made by M.A. Lazareva (2000) [67], then it was continued by O.I. Kuznetsova (2002) [68]. The two authors come to a similar double conclusion: in addition to the irrefutable universals, which are predictable due to the common physical reality of weather occurrences, there are also strong idioethnic aspects of conceptualizing the same meteorological events by each linguoculture. This result is interesting because it challenges a naive notion commonly encountered in cross-linguistic semantics, i.e. that meteorological vocabulary, because it is grounded in nature, should be relatively culture-neutral.

A more specialized line of comparison was created by E.V. Baranova (2013) who compared phraseological units of the lexical-semantic field "outer space" and the Earth atmosphere. Her work is methodologically useful in showing how cosmological and meteorological concepts are combined in colloquial expressions: the line between "weather" and "sky" turns out to be significantly more porous in language than in physical science. This blurring itself is a major cross-linguistic

phenomena as the two languages allocate the load between the two domains in different ways [69].

N.A. Portnikhina (2011) passed from synchronic comparison to semantic dynamics and traced the semantic development of the names of natural phenomena in Russian and English. Her work reveals that the use of weather words to create figurative expressions is not a haphazard addition to the vocabulary, but rather follows recurrent semantic trajectories, many of which are shared across the two languages, while others are language specific [70]. Based on this type of analysis, A.V. Kniga (2015) analyzed denotative commonality and national characteristics in nomination of natural phenomena, demonstrating culturally bound disparities in perception of supposedly universal weather events [71]. Together these works show that even when dealing with a denotative reference, apparently comparable terms in two languages may carve up the meteorological domain differently.

Another direction of inquiry is meteorological vocabulary in phraseological and conceptual analysis. Whereas the comparative tradition compares lexical inventories, this line of work explores how conceptions of weather are internally structured inside the conceptual framework of a given language.

Within the comparative-phraseological direction, Liu Yanchun (2012) compared meteorological phraseological units in Russian and Chinese and pointed out significant divergences in the figurative grounding of weather idioms. The value of this comparison lies precisely in the typological distance between the two languages: where Russian-English contrasts often reveal subtle differences within a broadly shared European cultural framework, the Russian-Chinese juxtaposition foregrounds the deeper cultural and conceptual sources of figurative weather imagery [72].

The conceptual sphere of weather as a whole became the focus of N.Yu. Perifelieva (2008) [73] and, a decade later, T.A. Popova (2018) [74], both of whom applied cognitive frameworks to describe the structure of weather concepts in Russian. Their works represent the gradual integration of conceptual metaphor theory and frame semantics into the Russian study of meteorological lexis – a development that parallels the international turn towards cognitive approaches discussed in the previous sections of this thesis.

More limited research have examined single sub-domains of meteorological vocabulary. The lexical-semantic field “atmospheric precipitation” was comprehensively defined by O.A. Lavrenova (2010) [75], who showed that even a relatively constrained sub-domain has a complex internal structure and gives rise to rich figurative expansions. A.V. Chastikova (2009) [76] broadens the comparative aspect to English and German, examining the phraseological verbalization of the macroconcept “natural phenomena” and giving a typological analysis of figurative weather images in two Germanic languages. Her study is one of the few in this body of research to step out of the Russian-language context, and examine meteorological figurativity within Western European languages alone.

Of all the directions surveyed above, the corpus of work on meteorological metaphor in particular discourse types is most directly relevant to the present

research. All of these research share the assumption that the meteorological vocabulary is a highly fruitful source for metaphorical extension. Moreover, they show this productivity over a wide range of discourse kinds – from poetry to political journalism to scientific writing.

Chan Thi Thu Hyong (2011) expressed the basic idea that weather imagery is an organizing principle of human experience. Studying meteorological metaphors in the Russian worldview, Hyong demonstrated the way weather images shape the perception of emotions, social processes and human relations. This work is essential in that it approaches meteorological metaphor not as a stylistic element, but as a cognitive mechanism with explanatory reach across different conceptual domains [77].

E.B. Ryabykh (2006) described the meteorological imagery as a method of esthetic meaning-making in poetic discourse in Russian poetry. Poetic material is methodologically important because it emphasizes the creative, non-conventional pole of metaphorization where existing mappings can be actively re-activated, inverted or extended. Thus, E.B. Ryabykh's approach complements the studies of conventional, lexicalized metaphors by establishing the top bound of figurative productivity that weather vocabulary can maintain [78].

At the opposite functional pole, political speech was the subject of N.M. Chudakova's (2005) work, which showed that metaphors of storm, fog, freezing and thaw are fruitful tools of ideological framing. Her approach makes explicit what was latent in earlier ethnolinguistic studies: that meteorological metaphor is not stylistically neutral but has an evaluative value that political language manipulates [79]. Developing this line, Yu. A. Olkhovikova (2009) analyzed metaphors with the source domain inanimate nature in mass media, expanding the empirical base from political speeches to journalistic discourse in general [80].

V.V. Ovsyannikova (2010) extended the analysis to scientific and geological discourse, analyzing metaphorical models in domains where, according to the traditional perspective, the metaphor must have a marginal position. Her findings are in line with the more general cognitive-linguistic notion that metaphor is not only ornamental but fundamental, as they reveal that even technical scientific speech is structured by figurative mappings, many of which have their origin in the meteorological source domain [81].

A particularly important contribution from a theoretical point of view is E.V. Komarov (2003) who analyzed the metaphoric interaction of the domains human and nature and established the bidirectionality of the metaphorical projections between them. The point is that, within the conceptual metaphor theory in its standard form, the flow is assumed to be largely unidirectional, from concrete source to abstract target; the findings of E.V. Komarov suggest that, within the human-nature pairing, mappings are bidirectional, with weather phenomena being humanized and human states being meteorologised in approximately equal measure [82].

Finally, O.S. Fissenko (2005) carried out a comprehensive study of the notion of thunderstorm, reconstructing its conceptual substance and figurative possibilities

in the Russian language worldview. The monographic analysis of a single weather idea by O.S. Fissenko is methodologically instructive: it displays the conceptual depth that can be recovered from a single meteorological lexeme when it is rigorously analyzed against the whole spectrum of its figurative uses [83].

Another research tradition has arisen in Turkic linguistics that offers an invaluable comparative foundation to the study of Kazakh meteorological lexis. The research of this group differs from the Russian-oriented studies discussed above in that it typically merges descriptive lexicology with etymological reconstruction, since the Turkic family is an especially good testing ground for the tracing of common roots and their phonetic-semantic changes.

The basic study in this tradition is the monograph of L.V. Danilova Meteorological lexis of Turkic languages (1972) which laid the foundations of systemic description of weather vocabulary of the Turkic family, singled out common Turkic roots and traced their phonetic and semantic transformations from one branch to another. In spite of its antiquity, the work nonetheless remains the single most significant source of reference for any subsequent research of climatic lexis in an individual Turkic language [84].

V.B. Dzhafarov (1990), Meteorological terms in the Azerbaijani language, used Danilova's framework but limited it to one language, and described the terminological subsystem of Azerbaijani weather names and analyzed their borrowing patterns – a question that is central to any Turkic language due to the long history of contact with Arabic, Persian and Russian [85]. Twenty years later, A.G. Iskandarova (2009) in Meteorological lexis in the Bashkir language used the same descriptive logic to Bashkir, establishing a structural-semantic classification and linking meteorological lexis with mythical and religious representations. Iskandarova's focus on mythical background is very important for the present research, because Kazakh meteorological lexicon, much as Bashkir, has important remains of pre-Islamic cosmology thinking [86].

The two investigations, while valuable, raise many unanswered concerns that provide the basis for the present study. First, neither work is concerned with meteorological metaphor as a culturally distinctive cognitive mechanism, i.e. a system of regular transfers with direction, productivity and evaluative burden, which change systematically among linguocultures. Second, neither study makes use of the corpus-based methodology, which has now become the standard tool in the international tradition for empirically grounded metaphor research. Thirdly, the comparative configuration of English and Kazakh – two languages of different typological and cultural traditions – has been applied for conceptual, rather than for proper metaphorical analysis up to now. Thus, the present dissertation aims to address the research gap of comprehensive comparative description of meteorological metaphor as a culturally specific cognitive process in English and Kazakh based on corpus data and in accordance with the cognitive metaphor theory.

As is seen, the diversity and variety of contemporary work on metaphor shows the scientific and cultural value of meteorological metaphors. Language is a rich depository of national self-expression, communal imagery and ecological worldview

most strikingly displayed in the metaphorical understanding of natural events.

Metaphor has always been interpreted in a broader sense than merely cognition in the post-Soviet era. In addition to the conceptual process proposed by G. Lakoff and M. Johnson [18], the researchers of this tradition have maintained that metaphor is culturally laden. It indicates something about how a particular people view the world. It is a thesis that goes back to Wilhelm von Humboldt [9], who maintained that each language has its own Weltansicht, its own way of looking at reality. Later this theory received a more concrete development by Yu.D. Apresyan [23] in his concept of the naive vision of the universe – the common, pre-scientific sense of reality, quietly preserved in the meanings of ordinary words. This naive perspective is not naive in a scornful way; it is only the collective common sense of a language community, gained over time and handed down without anyone being aware of it.

Metaphor is right in the midst of this picture. As cognitive linguistics has shown, it is a way of thinking and remembering. None of this – the source domain from which a language draws, the direction in which meaning flows, the evaluative color that the image takes on in the process–is incidental. Two languages can speak about the same wind, the same rain, the same frost, and build entirely distinct worlds around them.

This is precisely why meteorological metaphor serves as valuable content for the current research. Meteorological conditions are the most ubiquitous phenomenon conceivable – every individual, in every tongue, has experienced the chill and observed the precipitation. However, once experience is articulated through a metaphorical expression, it ceases to be universal. It captures the atmosphere of a certain locale, the cadence of a distinct economy, and the elements of a unique folklore. Meteorological metaphor is not a neutral or universally identical construct; rather, it is a linguistic form that encapsulates national-cultural specificity: while the physical source domain –wind, rain, ice, thunder – is shared among all speech communities, the direction, frequency, and evaluative nuances of its figurative extensions are influenced by the historical experiences, daily practices, and cultural memories unique to each language, making the resultant metaphor a reflection of the national perspective that created it. This approach allows for a comparative examination of two linguistic worldviews, with the notion of the linguistic worldview serving as the unifying element between the figurative and cultural viewpoints.

This discovery establishes the theoretical basis for the current study, which seeks to examine the linguistic and cognitive processes involved in meteorological metaphorization from the perspectives of cognitive and corpus linguistics.

1.3 Structural-semantic and cognitive approaches

An important methodological aspect in the study of metaphor is the establishment of classification principles that define its structure and semantics. Modern linguistics offers a range of such classifications, which systematize metaphors according to diverse criteria. They can be grouped into several broad paradigms – structural, semantic, functional, and cognitive – which the present

section reviews in turn before setting out the integrated framework adopted in this study.

The structural approach treats metaphor first of all as a phenomenon of grammar and syntax, examining the parts of speech involved in its construction and the formal patterns that recur across metaphorical expressions. V.P. Moskvin [87] laid the groundwork for this line by analysing the external lexical and grammatical structure of metaphors, which allows their formal patterns to be identified systematically.

Yu.I. Levin focused on structural organization, proposing an approach that categorizes metaphors according to the presence of a substitute word. He identified three primary categories:

– Comparison metaphors, which are enclosed and contain both a parameter and a prop word. They set up a direct comparison between two objects (*gold of lemons, colonnade of a grove*) and can easily be turned into similes (*a grove resembling a colonnade*).

– Riddle metaphors, in which the prop word is missing and the object is identified through a periphrastic construction (*carpet of winter, gemstones on the lawn*).

– Predicative metaphors, which transfer the characteristics of one object onto another (*the land is sleeping, life has burned, venomous gaze*) [88].

The semantic approach examines metaphor from the inside: every metaphor has a primary and an auxiliary subject of comparison, linked by a common feature (tertium comparationis), and the approach traces the regular semantic fields between which the transfer takes place. A significant contribution was made by G.N. Sklyarevskaya, who emphasized that the most active directions of metaphorization occur in the spheres OBJECT → PSYCHIC WORLD and ANIMAL → HUMAN, while the smallest number of transfers is found within the PHYSICAL WORLD, and the PSYCHIC and ABSTRACT lexical fields are least subject to metaphorization [89].

According to G.N. Sklyarevskaya's typology, the main patterns of metaphorical transfer include:

1. Object → Object (*водопад слёз, гора книг, каскад волос* – waterfall of tears, mountain of books, cascade of hair);

2. Object → Human: a) human qualities (*звезда, золото, лёд* – star, gold, ice); b) human body parts (*доска-ладонь, котелок-голова* – plank-palm, pot-head); c) groups of people (*море людей* – sea of people);

3. Object → Physical world (*каскад звуков, фонтан огня* – cascade of sounds, fountain of fire);

4. Object → Psychic world (*звезда удачи, буря страстей* – star of fortune, storm of passion);

5. Object → Abstraction (*жемчужина архитектуры, капля любви* – pearl of architecture, drop of love);

6. Animal → Human, including traits (*акула, барсук* – shark, badger), body parts (*морда, копыто* – muzzle, hoof), and collective names (*рой, табун* – swarm, herd);

7. Human → Human (*ангел, орда, артист* – angel, horde, artist);

8. Physical World → Psychic world (*весна жизни, буря восторга, гроза гнева* – spring of life, storm of delight, thunderstorm of anger) [89, p. 81-94].

As G.N. Sklyarevskaya [89] further emphasizes, the symbol of a metaphor is an element of semantics consisting either of one seme or of a set of semes, which in the original nominative meaning belongs to the connotative sphere, but in the metaphorical meaning becomes part of the denotative content as its nuclear element. This mechanism serves as the foundation for semantic transformations in the process of metaphorization.

Further systematization of metaphorical transfer directions is provided by Z.Yu. Petrova, who in her work "Regular Metaphorical Polysemy in the Russian Language" demonstrates that metaphorization follows regular semantic routes. Her classification includes, among others:

I. Animal → Human (*клещ, корова* – tick, cow);

II. Human → Animal (*говорить, танцевать; лицо, борода*);

III. Plant → Human (*расцвести, завять* – bloom, wither);

IV. Inanimate Nature → Human (*пасмурный человек, звезда науки* – gloomy person, star of science);

V. Living Beings → Inanimate Nature or Artefacts (*бок горы, хребет земли* – mountain's side, earth's spine);

VI. Living Beings → Artefacts (*глазок иглы, сердце машины* – needle's eye, heart of the engine);

VII. Artefact → Human (*бочка, игла, пышка* – barrel, needle, bun);

VIII. Physical Characteristics → Human (*красный, зелёный, длинный* – red, green, tall);

IX. Living Beings → Society or Intellect (*бродить мыслью, умирающее общество* – wandering thought, dying society) [90, p. 123–133].

A related approach is proposed by O.I. Glazunova, who, in her book "Logic of metaphorical transformations", outlines eight principal syntactic and functional realizations of metaphor, arising from the nomination of objects (*сова в новых лентах* – an owl in ribbons), predicative functions (*я осёл* – I am a fool), verbal predicates (*время летит* – time flies), adjectival and adverbial forms (*золотая мысль, ходить по-медвежьи* – golden thought, walk bear-like), genitive constructions (*океан мрака* – ocean of darkness), and instrumental case structures (*я волком бы выгрыз бюрократизм* – I'd gnaw bureaucracy like a wolf) [91, p. 140].

In the scholarly discourse formulated by V. G. Gak, metaphor is viewed as the result of semantic transfer based on the modification of individual components inherent to the word's meaning. After metaphorization, the family schema of both primary and secondary meanings interacts, resulting in some semes being updated, while others are either neutralized or reinterpreted. Consequently, the emergence of

figurative meaning is not a capricious phenomenon; rather, it arises from the redistribution of semantic units within lexical meaning, which facilitates elucidation of the processes underlying the construction of metaphorical designations in language [92, p. 151–152].

Building on the structural classification, V.P. Moskvin also developed a semantic system of metaphor classification, emphasizing the binary nature of metaphorical meaning: each metaphorical sign includes a primary subject and an auxiliary subject, correlated through a common attribute (the comparison aspect) [93].

According to V.P. Moskvin's semantic typology, metaphors are differentiated by the primary comparison subject and by the auxiliary comparison subject, which may be anthropocentric or personifying (the birches whisper), animalistic or zoomorphic (the revolver barks, the wind growls), or machinal (management apparatus, braking mechanism); they may further be classified by the degree of similarity between the subjects and by the degree of integrity of the inner form (image, erased, and dead metaphors). In V.P. Moskvin's framework, then, the metaphor is considered both as a grammatical and as a semantic phenomenon, and his classification encompasses the key parameters of metaphorical transfer. V.P. Moskvin also compiled a detailed table summarizing these components [93, p. 50].

Table 1 – Metaphor's components

Auxiliary subject	**Primary subject**	**Tertium comparationis**	**Comparison aspect**
“fox”	“man”	“cunning”	behavior
“rooster”	“man”	“bellicose”	behavior
“lightning”	“fastener”	“fast”	speed
“gold”	“hair”	“yellow”	color
“serpentine”	“road”	“winding”	form

To identify figurative and semantic specifiers, we refer to V.P. Moskvin's model for the identification of metaphor components.

Table 2 – Structure and components of a metaphor

Auxiliary subject	**Primary subject**	**Tertium comparationis**	**Comparison aspect**	**Figurative / metaphoric specifiers**
“fox”	“man”	“cunning”	behavior	Hiding/concealing traces, external attractiveness
“rooster”	“man”	“bellicose”	behavior	Ostentatious pertness / aggressiveness, excessive fighting spirit
“lightning”	"fastener”	“fast”	speed	Brilliant at the start
“gold”	"hair"	“yellow”	color	Shining, beautiful
“serpentine”	“road”	“winding”	form	Narrow, winding,

				attractive

[93].

The functional approach asks what metaphor is used for in real speech – to name, to describe, to characterise, to evaluate, to express emotion.

N.D. Arutyunova approaches metaphor from this functional-linguistic perspective, distinguishing four principal types [1, p. 366]: nominative metaphors, involving renaming and generating homonymy; figurative metaphors, which shift descriptive meaning to a predicative one; cognitive metaphors, creating polysemy through restructured predicate compatibility; and generalizing metaphors, merging logical categories and broadening the semantic scope of words.

In a similar functional framework, V.N. Teliya proposes a classification of metaphors according to their pragmatic role: identifying (indicative) metaphors, which form descriptive meanings (*львиный зев, хлеб-соль* – snapdragon, bread and salt); conceptual metaphors, creating abstract, idealized meanings (*знать себе цену, не от мира сего* – know one's worth, not of this world); evaluative metaphors, expressing emotional and axiological judgments (*золотое дно, до костей* – bonanza, to the bone); and emotively colored metaphors, where associative vividness activates the recipient's perception (*вешать лапшу на уши, денег куры не клюют* – pull the wool over one's eyes, have pots of money) [94].

Within the cognitive paradigm, a metaphorical model is understood as a mental and linguistic pattern that links two conceptual spheres – the source domain and the target domain. It can be schematically represented as “X is Y”, serving as a bridge between different fragments of conceptual experience, and reflects a stable way of perceiving reality shared by members of a linguistic community [95, p. 25].

A.P. Chudinov distinguishes several source sub-spheres from which metaphorical transfers originate: “Man” (physiological, morbial, kinship metaphor); “Society” (criminal, militaristic, theatrical, sports and play metaphor); “Nature” (zoomorphic, phytomorphic metaphor); and “Artefacts” (house, mechanism metaphor). For example, in the model POLITICAL ACTIVITY IS WAR, the common features – strategy, conflict, victory, loss – establish a semantic bridge between the domains of politics and warfare [96, p. 26-31].

Continuing this line, N.N. Boldyrev connects metaphorization with categorization, describing it as a fundamental cognitive process alongside conceptualization. Building upon G. Lakoff's work, he argues that categorization relies on cognitive mechanisms common to all humans and realized through propositional, schematic-imagery, metaphorical, and metonymic models; metaphorical models represent transitions between conceptual structures of different domains [97].

Another significant contribution is the descriptor theory of metaphor by A.N. Baranov, which interprets metaphorization as a process of knowledge representation within frames and scenarios. A.N. Baranov introduces semantic descriptors, differentiating significative descriptors (belonging to the source area) from denotative descriptors (belonging to the target area) [98, p. 11]. The M-model (metaphorical model) thus represents a linguistic embodiment of cognitive mapping,

linking perception, conceptualization, and verbalization; the model is always speech-dependent, which corresponds to the cognitive understanding of metaphor as a mental operation realized through language [98, p. 15].

When analyzing the meteorological lexis, this study also relies on the classification of motivational attributes (motivational metaphorical features) proposed by O.N. Laguta, which underlie the metaphorization process. These attributes include:

– physical properties (*height, depth, length, fullness, size, shape, width*);

– decorative and sensory properties (*odor, color, hue, tone, sound, loudness, timbre*);

– tactile and thermal properties (*hardness, softness, temperature*);

– temporal features (*age, duration, time, rhythm, tempo*);

– functional and dynamic characteristics (*activity, intensity, reaction, result, force, purpose*);

– quantitative and structural features (*measure, system, order, quantity*);

– subjective and psychological attributes (*feeling, experience, emotion*) [99, p. 70].

In the present study, the common semantic element shared by the literal and figurative meanings is treated as the core component that motivates the transfer. While explanatory dictionaries typically register only the nuclear components of meaning, a full account of metaphorization also requires attention to peripheral, evaluative, and emotional features, since these often reveal how speakers perceive and emotionally evaluate reality. On this basis, the principles of metaphorization can be described from a structural-semantic perspective as a dynamic interaction between denotative, significative, and connotative layers of meaning.

The analytical parameters identified within this framework are: the components of meteorological metaphors; the motivational features underlying metaphorization; the types of metaphorical transfer; and the sources of metaphorization (motivational semantic attributes). The analysis itself proceeds by grouping semantically related metaphors, identifying regularities in the orientation of metaphorical transfer, revealing national and cultural specifics through etymological analysis, and examining the word-formation mechanisms of metaphor creation.

Taken together, these structural, semantic, functional, and cognitive classifications provide a unified methodological basis for the present research. Their integration allows us to examine metaphor simultaneously as a linguistic structure and as a cognitive tool reflecting national and cultural worldviews – which is particularly important for the analysis of meteorological metaphors, where language, cognition, and culture intersect most vividly.

Table 3 – Major approaches to metaphor study within structural-semantic and cognitive paradigms

Aspect	**Core idea**	**Representative scholars**	**What it gives the research**
Structural	Metaphor as a	V.P. Moskvin,	Shows how metaphor

	phenomenon of grammar and syntax: how the comparison term and prop word are arranged, which formal patterns recur.	Yu.I. Levin	functions as a structural unit and grammatical model; enables formal cross-linguistic comparison.
Semantic	Every metaphor has a primary and auxiliary subject linked by a common feature; traces regular semantic fields of transfer.	G.N. Sklyarevskaya, Z.Yu. Petrova, O.I. Glazunova	Shows how one meaning gives rise to another and identifies recurrent directions of transfer.
Functional	What metaphor is used for in speech: naming, describing, evaluating, expressing emotion.	N.D. Arutyunova, V.N. Telia	Explains how metaphor produces polysemy and evaluative meaning.
Interactionist	Metaphor as live interaction of two subjects (tenor and vehicle) producing new meaning.	I.A. Richards, M. Black, P. Ricoeur	Establishes metaphor as an active operation of thought creating new meaning.
Cognitive	Metaphor as an operation of thought: a concrete domain models a more abstract one.	G. Lakoff, M. Johnson, Z. Kövecses	Reveals basic concepts of a community and the worldview encoded in metaphor.
Corpus-discursive	What metaphor does in real communication and how it is verified empirically across text.	J. Charteris-Black	Grounds metaphor analysis in corpus data; reveals social and rhetorical roles.
Frame / descriptor	Metaphor as knowledge storage: behind each expression stands a frame, with descriptors linking source and target.	A.N. Baranov, A.P. Chudinov, N.N. Boldyrev	Describes metaphor as a dynamic model linking thought and language.
Integrated	Brings structural,	Combined basis	Provides the working

structural-semantic-cognitive (present study)	semantic, and cognitive perspectives together: metaphor as form, transfer, and operation of thought at once.	of the dissertation	basis allowing meteorological metaphors to be analysed where language, thought, and culture meet.

Table 3. brings together the main directions in metaphor research and shows how different traditions read this phenomenon. The theories outlined above – from structural-semantic to cognitive and descriptor approaches – give a sense of how complex and many-sided metaphorization really is. Each framework adds something to our understanding of the mechanisms through which language turns sensory experience into conceptual meaning. In the analytical part that follows, these theoretical principles will serve as the foundation for examining meteorological metaphors, where natural phenomena work both as conceptual sources and as cultural mirrors of human cognition.

1.4 Corpus-based approaches for extracting meteorological metaphors

Corpus linguistics is one of the most dynamically developing branches of contemporary linguistics. It plays a significant role in such applied fields as corpus stylistics, discourse analysis, translation studies, and foreign-language teaching. The corpus-based approach makes it possible to investigate language use empirically, revealing authentic patterns and tendencies in real communication.

Corpus linguistics is defined as a branch of computational linguistics that studies the principles of compiling and applying linguistic corpora – that is, electronic text collections – through computer technologies. A linguistic text corpus, in turn, is understood as a large, structured, typologically and philologically balanced array of linguistic data designed for the solution of specific linguistic tasks [100, p. 5]. Unlike a text archive, which represents an unstructured and opportunistically gathered repository of texts, a corpus is a systematically compiled and balanced collection intended for linguistic analysis [101, p. 4].

A modern linguistic corpus is electronically accessible and may include several levels of linguistic annotation – morphological, syntactic, or semantic. Information about sampling principles and the origin of texts is specified in the corpus metadata [102, p. 4]. Two further notions are essential for working with corpora. A concordance is a list displaying all occurrences of a given word within a text, accompanied by its immediate context, while a concordancer is a tool that performs such searches automatically.

Concordances are typically presented in the Key Word in Context (KWIC) format, in which the target word appears in the centre, flanked by its left and right context. Parallel concordancers, which align texts in several languages, are particularly valuable for translation studies [102, p. 198].

The first computerised text corpora appeared in the 1960s. One of the earliest was the Brown Corpus, compiled by W. Francis and H. Kučera and based on a sample of texts published in American books, newspapers, and magazines in 1961. The corpus consists of 500 text samples of 2,000 words each, amounting to a total of one million words. Together with the corpus, its compilers produced extensive statistical materials, including frequency word lists and various distributional tables. The Brown Corpus was designed to enable systematic research into genre characteristics and comparative genre analysis in written American English, and its appearance generated considerable scholarly discussion [103, p. 11-12].

Corpus linguistics functions as a research methodology that enables empirical investigation of language variation and use, producing results with higher validity and broader generalisability than introspective methods. Corpus-based studies share several distinctive characteristics:

– they are empirical, analysing patterns of actual language use in natural texts;
– they rely on large, systematically constructed and balanced text collections;
– they employ computational tools for both automatic and interactive analysis;
– they combine quantitative and qualitative analytical techniques [104].

The importance of corpus linguistics is not only to build databases or search tools. Its real significance is that it may provide quantitative and qualitative evidence to support theories of language in a number of areas including discourse analysis, stylistics, translation and cognitive research.

P. Baker argues that corpora are tools for social and linguistic research. His methodology is indicative of the interdisciplinary nature of corpus research and indicates that corpora can show not just linguistic trends but also the social dynamics represented in language use [105, p. 33].

F. Charles Meyer expands on this idea with an emphasis on the practical use of corpus data: compared to purely formal methods, he sees corpora as a means of studying language as a communication system rather than as a set of rules [106, p. 5].

Both scholars see corpora as a methodological bridge between linguistic study and the social context.

The growth of technology is closely related to the nature of modern corpus linguistics. The application of morphological, syntactic and semantic annotations (treebanks, dependency structures, anaphoric links) greatly improves the analytical accuracy of corpus-based research [107, p. 10]. Thus, modern corpus linguistics is not a single subject but a broad methodological approach pertinent to syntax, semantics, pragmatics and discourse analysis [108, p. 2].

The British linguistic legacy has influenced the creation of national corpora because of the need to address the great diversity across English dialects and registers. Researchers had reliable data to perform systematic comparisons between studies, from carefully assembled resources such as the British National Corpus [109, p. 10]. In Kazakh and Russian linguistics the situation is somewhat different: the corpus is in the initial stage of creation, and the textbooks are still devoted to basic concepts rather than to more complex analytical techniques.

N.B. Gvishiani has made a considerable contribution into the Russian corpus research, especially in the cross-linguistic investigations. Her research with the International Corpus of Learner English (ICLE) does not just document differences between native and learner forms of English, but shows how the first language affects second-language output, often in subtle ways. Significantly, N.B. Gvishiani shifts the focus from basic structural features to functioning and pragmatics, showing how corpus data can enrich the analysis of communicative skill as well as grammatical accuracy [109, p. 33].

Further development of this functional orientation is presented in G.I. Kustova's analysis of the integration of corpora into lexicographical practice. She maintains that computerized dictionaries connected to corpora enable a new level of linguistic description: dynamic, data-driven and empirically verifiable. Her model highlights the interactive potential of corpus-based lexicography, where theoretical linguistic knowledge interacts directly with attested usage by merging dictionary entries with real corpus samples [110, p. 7].

V.V. Rykov has also established the theoretical knowledge of corpus structure. He defines a corpus of texts as an organized array whose elements are individual texts. According to the researcher, the principles of such an organization may vary according to the pragmatic goals of the compiler or user, so that the texts which constitute the corpus may represent either whole works or selected parts [111]. Based on this structural understanding V.A. Plungyan proceeds to the conceptual dimension of corpus linguistics, in particular, to the semantics of the term "national". He notes that in corpus linguistics this phrase represents the sense of the English national rather than the Russian *национальный* ("relating to the nation"). The term initially emerged in the title of the British National Corpus (BNC), a corpus established by British lexicographers in the 1990s which, though not the first electronic corpus in the world, became one of the most prominent and representative. According to V.A. Plungyan, the term national was first applied to the British variation of English as opposed to American or Australian ones, but then its meaning progressively extended to any significant representative corpus reflecting the language as a whole [112].

Whereas V.V. Rykov and V.A. Plungyan outline the conceptual and structural foundations of corpora, E.V. Grudev addresses their technological dimension. He defines automatic markup, or annotation, as the process of assigning linguistic information to textual units by means of specialised software [113, p. 78]. This process provides the computational infrastructure necessary for linguistic analysis, transforming static text collections into dynamic databases capable of supporting complex semantic and syntactic research.

Expanding on this technological view, M.V. Kopotev proposes a more detailed typology of annotation, distinguishing two principal types:

– meta-text markup (metadata), which includes information about the external features of texts, such as authorship, the social or age characteristics of the author, and the circumstances of text creation; the most elaborate system of metadata,

known as the text passport, is implemented in the National Corpus of the Russian Language;

– linguistic markup, which covers grammatical, morphological, and syntactic annotation of language units; many corpora are partially or fully morphologically annotated, while only a few include phonetic or prosodic markup.

M.V. Kopotev also introduces the concept of fragmented corpora, such as n-gram corpora and concordances, in which linguistic information is represented as recurring multi-word sequences (bigrams, trigrams, and so on). Strings such as and *no time for…* or *and for…* allow researchers to investigate frequency and collocational patterns. On the basis of this classification, the Russian National Corpus is regarded as an example of a fragmented corpus [114].

Taken together, these scholars trace the gradual evolution of corpus linguistics – from the structural and pragmatic definition advanced by V.V. Rykov, through V.A. Plungyan's terminological refinement, to E.V. Grudev's technological framing and M.V. Kopotev's typology of annotation. Such complementarity demonstrates that corpus linguistics integrates theoretical, descriptive, and computational principles within a unified methodological framework.

Having reviewed the general theoretical foundations of corpus linguistics, the discussion now turns to the specific national corpora used as the empirical basis of the present study.

The systematic discussion of national language corpora in Kazakh linguistics began in the early twenty-first century. The Department of Applied Linguistics at the A. Baitursynov Institute of Linguistics has played a central role in this process, developing corpus projects in line with contemporary information-technology standards. Under the initiative of Professor A.K. Zhubanov, methods and technologies for corpus design were actively researched and implemented; one of the foundational works in this area is the monograph Corpus Linguistics by A. Zhubanov and A. Zhanabekova [115]. Since 2009, the department has been developing software for linguistic markup, accumulating substantial practical experience. During this period, morphological analysis was introduced for the first time through the creation of an automatic morphological analyser.

The software was developed by D. Tokmyrzaev, a programmer at the A. Baitursynov Institute, and K. Koibagarov, a research fellow at the Institute of Informatics. In collaboration with Professor A. Zhubanov, Doctor of Philology A. Zhanabekova, and the research team (B. Karbozova, A. Kozhakhmetova, G. Tlegenova, E. Besirova, K. Pirmanova), the project successfully integrated linguistic, mathematical, and technological expertise. As Professor A. Zhunisbek observes, the development of linguistic descriptions and automated systems requires a profound understanding of phonetics and applied linguistics, particularly in such areas as speech synthesis and analysis [116].

Building upon this foundation, further work on the meta-markup of corpus texts was carried out within the 2015-2017 grant project, which is still ongoing. In 2016, under the leadership of A. Fazylzhanova, the Institute launched the targeted project “Development and Establishment of the National Corpus of the Kazakh

Language". Within this framework, a special meta-markup guide was created for annotators, comprising twenty-three metadata fields that describe text parameters and corpus structure. During the transition to the Latin alphabet, this meta-markup system was expanded, and a semi-automatic software tool for data entry was developed [117].

Several Kazakh-language corpora currently exist at different stages of completion. Among them, the Almaty Corpus of the Kazakh Language, created in 2015 within the grant programme of the Ministry of Education and Science of the Republic of Kazakhstan, occupies a particularly significant position. Implemented under the sub-priority "Fundamental research in the field of social, economic, and human studies", the project expanded the corpus to two million word tokens [118]. Its development employed advanced natural language processing methods, including lexicographic processing, tokenisation, lemmatisation, and morphological analysis, which enable automated text retrieval and large-scale concordance creation [119, p. 9].

The search engine of the Eastern Armenian National Corpus was adapted for the Kazakh corpus, since at the time of development it provided the most appropriate technological model for an agglutinative language with rich morphology. At the first stage, approximately 80 percent of word forms were morphologically analysed; as homonymy was not resolved, each word form retained multiple possible analyses, ensuring linguistic diversity and completeness.

The first version of the National Corpus of the Kazakh Language was conceived as a comprehensive reference and information system that integrates annotated texts of the literary and spoken Kazakh language. Its key characteristics include:

– linguistic representativeness and broad genre coverage;

– a powerful search engine for complex linguistic queries;

– the availability of lexical and morphological analyses with Russian and English translation equivalents;

– diachronic representation of various periods in the history of the Kazakh language;

– the inclusion of diverse written and oral texts;

– grammatical and bibliographic annotation;

– open public access;

– an electronic library containing more than one hundred works of classical Kazakh literature [119, p. 11-12].

The full version of the Almaty Corpus is available at http://web-corpora.net/KazakhCorpus/search/index.php?interface_language=ru. At present, it contains over forty million tokens, with approximately 86 per cent of word forms analysed; homonymy remains unresolved, allowing all possible interpretations to be displayed. Users can perform searches via the sub-corpus interface (http://web-corpora.net/KazakhCorpus/search/frame_parts/subcorpus.php), selecting authors, genres, and periods.

The corpus covers both fictional genres (novels, plays, folk tales) and non-fictional genres (scientific, religious, and official texts), as well as oral speech (public, spontaneous, cinematic, electronic). The available search parameters include parts of speech (verb, noun, adjective, etc.), grammatical categories (tense, mood, aspect, number, case, possessiveness), and verbal forms (infinitive, participle, adverbial participle) [120].

The corpus homepage is accessible at http://qazcorpus.kz/. The project represents a significant linguistic innovation that exceeds the descriptive capacity of traditional grammar dictionaries and serves as a digital foundation for the preservation and study of the Kazakh language.

The corpus comprises texts by individual authors, as well as samples classified according to functional styles and genres, all presented in MS Word format. Each text is supplemented by a metacoding block specifying its main characteristics. Within the National Corpus of the Kazakh Language, fictional texts predominate; nevertheless, the corpus also makes it possible to filter and search according to such stylistic categories as scientific style, journalistic style, and fiction. This composition demonstrates the representativeness of the corpus and its capacity to serve as a fundamental digital resource for the study of the stylistic and linguistic diversity of the Kazakh language. [121].

Another early development is the Kazakh Language Corpus (KLC), which hosts a large-scale linguistic project providing a search mechanism, downloadable samples, documentation, and statistical information. The KLC project represents one of the first initiatives within the local research community to compile an open, annotated corpus of the Kazakh language. It is designed as a large-scale corpus containing over 135 million words, distributed across five major stylistic domains: literary, publicistic, official, scientific, and informal. Alongside its primary database, the KLC also includes:

– a deeply annotated subcorpus, consisting of segmented documents encoded in XML and marking the morphological, syntactic, and structural characteristics of texts;

– a spoken (ready-speech) subcorpus, containing annotated samples of spoken language [122].

The corpus-based methodology applied in the present study draws on the principles of computational linguistics developed for the Kazakh language [123].

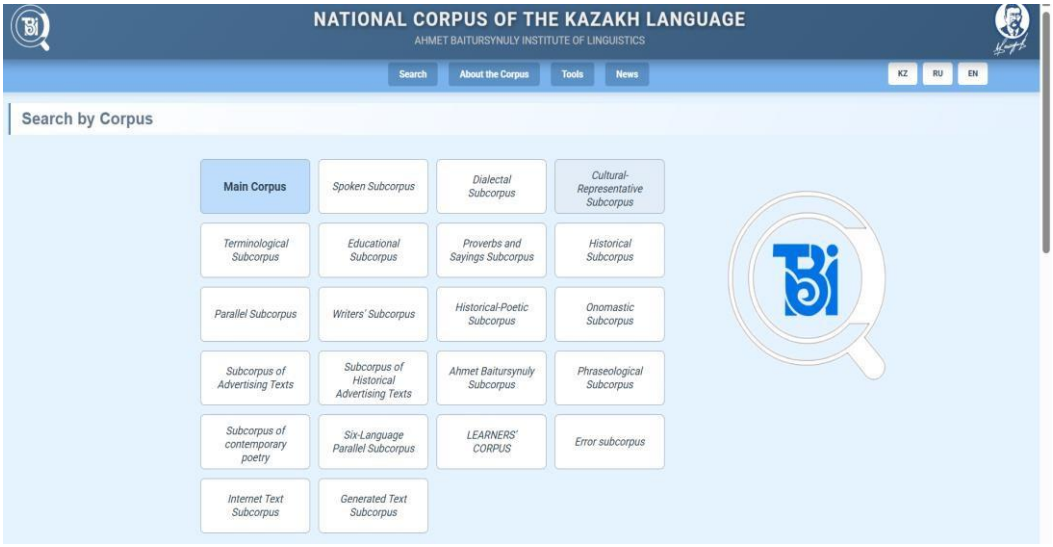


Figure 1 – The National Corpus of the Kazakh Language (main page)

These two projects are therefore complementary: the KLC is established within the framework of academic research and focuses on openness, annotation and computational analysis, while the National Corpus is generated with the assistance of the state and emphasizes linguistic representativeness and cultural preservation. They combine technological innovation with state language policy, in keeping with the aims of Digital Kazakhstan and Kazakhstan-2050, which imply an active role for the Kazakh language in the digital era.

The two English-language corpora in this study were chosen because they, together, encompass the two major variants of the language and are virtually perfectly complementary. The first is the British National Corpus (BNC). The corpus was compiled in the early 1990s by a collaboration led by Oxford University Press, and contains over a hundred million words, about ninety per cent written and ten per cent spoken, and was intended from the outset to capture a broad cross-section of British English of the late twentieth century. It includes written material ranging from national newspapers and scholarly prose to popular literature, letters and even school compositions, and spoken material ranging from everyday conversations recorded from individuals all throughout the country. The value of the BNC for the present work lies precisely in this breadth, as meteorological metaphors do not only live in literature, and a corpus that contains both a weather report and an ordinary conversation allows one to see how rain, frost and storm are actually spoken about in everyday British life [124].

The second is the Corpus of Contemporary American English (COCA) compiled by Mark Davies and published in 2008. The BNC provides a precise picture of British English at a single point in time. COCA does something different: it continues to develop year by year, adding a similar quantity of text for each year from 1990 onward, so that we get to see the language as it shifts, rather than fixed in place. Its materials are evenly distributed across speech, fiction, periodicals, newspapers, and academic prose, such that a single metaphor can be followed as it progresses from a news column into a novel or a conversation. This even

distribution is of significant consequence to a study of figurative language, for it reveals not only that a metaphor exists, but where it abides, and how far it ranges.

Taken together, the British BNC and the American COCA give the analysis two solid and complementary footings – one rooted in the careful balance of a finished corpus, the other in the living, expanding record of a language still in motion [124].

The methodological framework outlined above has been applied in a number of dissertations devoted to the study of metaphor on the basis of national corpora of English, Russian, Kazakh, and Turkish and the methods outlined in contemporary corpus semantics [125].

The most relevant works include the following:

– A.A. Deignan (1998), corpus-based study of some linguistic features of metaphor [126];

– R. Moon (1998), an analysis of English idioms and fixed expressions on the basis of the Oxford Hector Pilot Corpus and the Bank of English [127];

– J. Dilkes, the social and psychological work of metaphor: a corpus linguistic investigation [128];

– O.O. Syomina (2007), a study of secondary nominations of zoomorphisms based on national corpus data [129];

– O.O. Zayachkovskaya (2008), an investigation of the metaphorical conceptualisation of emotions in English [130];

– Yu.N. Molodkina (2010), a corpus-based study of the synaesthetic metaphor of smell [131];

– S.V. Selin (2011), an analysis of the verbalisation of the concept of "madness" in English from cognitive, corpus, and cultural perspectives [132];

– M.V. Dyuzenli (2016), a metaphorical reconstruction of family relations on the basis of Turkish and Russian language corpora [133];

– A.S. Seyitbek (2017), a study of the experience of lexical and morphological annotation in the creation of a national language corpus on the basis of the Kazakh and English languages [134].

These works collectively demonstrate that corpus linguistics has become a productive empirical foundation for contemporary metaphor research. They show that the corpus approach not only provides access to extensive authentic material but also makes it possible to identify regularities in figurative language use across genres and languages.

The methodological apparatus developed in these studies underlies the corpus-based procedure of extracting meteorological metaphors that is set out in the following subchapter.

The simplification of working with corpus data has made it possible to verify empirical observations concerning the functioning of metaphorical units. The study of metaphorization processes through corpus-based analysis enables the identification of basic metaphorical models underlying figurative language use.

Corpus linguistics is now being established as a specialized branch of modern linguistics that allows researchers to access authentic linguistic data, thereby

enhancing empirical reliability and offering new perspectives on language analysis. The retrieval of metaphors from corpora, however, remains a challenging task: on the one hand, the vast size of corpora complicates the search process; on the other, hypertexts provide a valuable source of diverse linguistic material. The problem of metaphor identification has therefore become one of the central issues in corpus-based cognitive research.

This section reviews the principal corpus-based methods of metaphor identification developed in international scholarship over the past three decades, before turning to the specific algorithm adopted in the present study for the extraction of meteorological metaphors from corpora.

A. Goatly (1997) was among the first to point out the potential for automatic extraction of metaphors using so-called metaphor markers. This method relies on a broad range of linguistic indicators, including expressions such as metaphorically, figuratively speaking, so to speak, image, and likeness, which signal a shift between literal and figurative meaning [135, p. 174].

J. Charteris-Black (2002) focuses primarily on conventional metaphors and proposes a two-stage procedure for their identification. The first stage involves a close qualitative reading of texts to locate potential metaphor candidates; the second stage applies corpus techniques to verify whether each identified keyword is used metaphorically or literally. For instance, in the Bank of English the collocation crusade against frequently co-occurs with corruption (12), slavery (7), communism (7), abortion (6), Islam (6), and poverty (5) [136, p. 34]. Typical examples include:

– *…one of the most effective voices in the crusade against slavery.*

– *…a crusade against communism, when its promises of rich rewards from the crusade against inflation…*

– *…her family's crusade against cancer.*

These uses draw upon different aspects of the literal source domain of religious struggle: tabloid examples highlight effort and endurance, whereas academic and broadsheet contexts emphasize moral purpose [136, p. 35-36]. Once potential keywords are identified, corpus search tools determine their frequency, and each instance is then manually checked to confirm metaphorical usage and exclude literal religious contexts. Keywords are thus defined as words with a high tendency to occur metaphorically, though not exclusively so [136, p. 37].

In a separate but related study, J. Charteris-Black (2002) also conducted a cognitive-semantic and corpus-based comparison of metaphors in US inaugural speeches and UK election manifestos. His findings revealed distinct lexical domains: fire/light and the physical environment in the US corpus, and plant/growth imagery in the UK corpus. These differences were explained through cultural and historical factors – the American narrative of struggle and independence fostered positive fire metaphors, while British cultural associations with gardening emphasized metaphors of nurture and growth [137].

A. Stefanowitsch proposes the Metaphorical Pattern Analysis (MPA) method, in which the researcher conducts a computer-based search for lexical units that verbalize the source domain of a conceptual metaphor. The lexical units extracted

from the corpus are then correlated with the target domain, and a conceptual metaphor is formulated at the final stage. As Stefanowitsch notes, however, this procedure is far more complex than the simplified description suggests: conceptual metaphors are not tied to specific lexical items, and not all metaphorical expressions contain elements of the target domain [138].

Researchers from the University of Amsterdam – G.J. Steen and his colleagues – developed a different algorithm for metaphor identification, known as MIPVU *("Metaphor Identification Procedure Vrije Universiteit").* This method provides a systematic, multi-step framework for identifying linguistic metaphors in corpora. Consider the following example from fiction: "What do you know about it?" Jenny asked. "You've never been in love. I know. Matthew doesn't want to get married – he once said marriage was a trap – but I know he loves me." Here, three lexical units – about, in, and trap – are analyzed as metaphorical. Applying MIPVU involves the following stages:

– for each lexical unit, determine its contextual meaning;

– for each unit, establish whether it has a more basic contemporary meaning in other contexts;

– if a basic meaning exists, assess whether the contextual meaning contrasts with it yet can be understood through comparison [139, p. 91].

A. Deignan shows that corpus research generally lines up with the principles of Conceptual Metaphor Theory (CMT). She carried out a detailed analysis of how the words *price* and *rise* behave in collocation, working out for each instance whether the use was literal or metaphorical. Using the *Bank of English* software, she generated complete concordances for both words and identified their most frequent collocates. Common expressions such as a high price to pay or a heavy price to pay illustrate the conceptual mapping VALUE IS WEIGHT [140, 200-197].

A. Deignan further highlights that large corpora can be subdivided into sub-corpora, enabling both genre-based and diachronic comparisons; this allows researchers to explore differences between spoken and written discourse and to trace how figurative expressions evolve over time [140, p. 224]. In the present study, A. Deignan's collocational approach is also applied to meteorological lexemes to trace figurative extensions across corpora.

Within the framework of Corpus-Assisted Discourse Studies (CADS), A. Partington (2003) analyzed metaphors in a corpus of White House briefings, comparing them to a corpus of political interviews. One of the key categories he identified was the orientational metaphor based on spatial movement. The unusually high frequency of prepositions and particles such as toward(s) and forward revealed recurring collocations with the verb move, producing clusters like as we move forward and to move forward with. From these patterns, two systematic metaphors were derived: PROGRESS IS FORWARD MOTION and MOVING FORWARD IS NECESSARY [141].

The corpus-driven approach, by contrast, treats empirical data as the starting point for theory-building: recurring patterns in concordances lead to hypotheses,

which are gradually generalized into rules of linguistic behavior and conceptual regularities [142, p. 17].

These individual methods rest on broader methodological foundations articulated by E. Tognini-Bonelli, who distinguishes two major paradigms in corpus linguistics: the corpus-based and the corpus-driven approaches. The corpus-based approach begins with established linguistic categories and uses corpus data to verify, illustrate, or probabilistically refine them; in this view, frequency distributions and syntactic patterns support, but do not determine, theoretical statements [142, p. 81].

This dichotomy highlights the dual nature of corpus linguistics – as an empirical tool for testing current ideas, and as a dynamic framework for developing new theories.

M.A.K. Halliday refers to the practical side of the corpus research, which shows that corpus linguistics is helpful in solving difficulties with lexicography, empirical description and representation of meaning in real language use. The N. Chomskyan and cognitive linguistic approaches, on the other hand, consider language to be a psychological or mental reality. Both are valid approaches that complement each other: corpus linguistics is chiefly concerned with meaning, cognitive linguistics with understanding.

Meaning, as M.A.K. Halliday notes, is an objective property of the linguistic system, whereas understanding is subjective, performed by speakers and hearers in communication. Cognitive linguistics thus explores what happens in the human mind during encoding and decoding, while corpus linguistics studies the message itself – the linguistic evidence of meaning as realized in authentic discourse. Consequently, corpus linguistics can reveal patterns of meaning that remain inaccessible to purely introspective approaches, even though it cannot capture the full cognitive dimension of understanding [143, p. 105-106].

The methodological relationship between cognitive linguistics and corpus research has long been characterized by a certain tension. On the one hand, corpus analysis has been employed since the early stages of cognitive linguistics; on the other, early American studies were often dominated by introspective and theoretical analysis. European scholars, however, have tended to adopt a more corpus-oriented perspective, integrating empirical methods into the study of conceptual and usage-based meaning [144, p. 171].

In this context, S.Th. Gries and D.S. Divjak play a central role in bridging the two domains. In their paper *"Quantitative Approaches in Usage-Based Cognitive Semantics: Myths, Erroneous Assumptions, and a Proposal"*, they address common misconceptions surrounding corpus methods, such as:

– "these findings are true only for your corpus; a different corpus would yield other results";

– "your corpora are not comparable; therefore, your results are invalid";

– "you would get different outcomes if you examined another register or word form."

S.Th. Gries and D.S. Divjak argue that a radically corpus-based approach provides several crucial advantages:

1. it yields more objective and precise descriptive data than introspective analyses while remaining faithful to the usage-based orientation of cognitive linguistics;

2. it enables bottom-up, data-driven exploration of distributional patterns using quantitative methods that outperform human intuition in recognizing patterns;

3. it allows cross-linguistic comparison of lexical semantics based on measurable distributional properties rather than purely interpretive distinctions;

4. it facilitates the integration of results from multiple empirical studies, enhancing consistency and comparability [145, p. 346-358].

Terminological inconsistencies within corpus studies often arise around the notion of collocation. Some scholars use this term to describe idiomatic or fixed expressions, while others apply it more broadly to any co-occurrence of lexical items. Following the research tradition adopted here, collocation refers to the statistical co-occurrence of words within a short textual span, while anomalous collocation denotes non-standard or idiomatic combinations, including ill-formed, defective, and phraseological patterns [131, p. 26]. As J. Sinclair puts it, "collocation is the occurrence of two or more words within a short space of each other in a text" – that is, repeated or statistically significant co-occurrences, regardless of whether they are semantically motivated [146, p. 170].

Methodology. Research methods.

To achieve the aim and tasks of the dissertation, the research methods were applied in three successive stages.

Data collection. The *continuous sampling method* was used to extract meteorological lexical units and their metaphorical uses from the corpora (BNC, COCA, NCKL, ACKL); it was supported by corpus-based *frequency, collocational, and concordance analysis*. Every corpus-derived unit was then verified against lexicographic sources – general and specialised English and Kazakh dictionaries, meteorological glossaries, and the etymological dictionary of Turkic languages (*lexicographic verification*). This stage provided the delimitation of the material, its thematic classification, and the identification of the terminological sources and motivational attributes of meteorological lexis.

Processing and identification. *Structural-semantic analysis* – the central method of the dissertation – was realised through *contextual analysis* and *component analysis* to determine the structural and semantic features of the metaphors (second task). The *Metaphor Identification Procedure* and its extended version (MIP/MIPVU) were applied to distinguish metaphorical uses from literal, terminological, and idiomatic ones and to establish the mechanisms and the dominant direction of metaphorical transfer.

Interpretation. The *descriptive method* was used to systematise the regular metaphorical transfers identified (fourth task); *etymological analysis* traced the historical and cultural origin of individual metaphors and idioms; the *interpretative* and *comparative methods* established which models are shared by English and

Kazakh and which are culture-specific, explaining their national and cultural grounding. In the present study, metaphor is understood in a broad sense and includes cases of anthropomorphic representation of meteorological phenomena, in which the lexemes are endowed with properties of animate or human agents.

In this dissertation, meteorological lexis is understood as the thematic group of vocabulary that names atmospheric phenomena and processes and the states of the weather, together with the stable word combinations and phraseological units formed on the basis of these names. Its core consists of meteonyms – lexical units denoting meteorological phenomena (*wind / жел, storm / боран, дауыл, rain / жаңбыр, snow / қар, hail / бұршақ, thunder / күн күркіреу, lightning / найзағай, cold / суық, frost / аяз, ice / мұз*); its periphery includes their derivatives and compounds, folk and terminological names of weather phenomena, and meteo-phraseological units. According to the phenomena they denote, the units are divided into five thematic groups: atmospheric air masses, solid and liquid precipitation, electrical and sound phenomena, temperature phenomena, and ice and freezing formations. In the present study, meteorological lexis is examined as a source domain of metaphorization, i.e. as a system of names whose figurative meanings transfer the experience of the weather to the human being, society and abstract notions.

The research material consists of meteonyms – lexical units that denote meteorological phenomena. More than 20 000 concordance lines were analysed during the corpus-based study (Table 5). A total of 556 meteonyms were identified – 255 in English and 301 in Kazakh (Appendices A and B). In addition, 282 sentence structures containing meteorological metaphors were selected from the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA) (Appendix C), while 297 examples were obtained from the National Corpus of the Kazakh Language (NCKL), also used in recent frequency- and structure-based corpus studies of Kazakh, and the Almaty Corpus of the Kazakh Language (ACKL) (Appendix D). In the title of the dissertation, the phrase “National language corpora” is used broadly to denote this combined empirical base, comprising both the English-language corpora (BNC, COCA) and the Kazakh-language corpora (NCKL, ACKL) listed above.

The corpus selection and verification procedure applied at the search stage can be illustrated by the search-and-verification statistics obtained for a representative subset of meteonyms in each language. In the English material, the query *wind* returned 7,299 matches in the BNC (72.99 instances per million words); *storm* returned 2,262 hits in 876 texts (23.01 per million); *rain* returned 6,235 hits in 1,316 texts (63.42 per million); *snow* returned 3,443 hits in 839 texts (35.02 per million), from which 3,943 collocate matches were further extracted; and *hail* returned 323 hits in 242 texts (3.29 per million). In the Kazakh material, the query *жел / боран* returned 312 matches across 33 documents in the ACKL; *аяз* returned 38 entries across 13 documents; and *мұз* returned 233 concordance entries across 23 documents in the ACKL.

Building on this theoretical foundation, the present research applies cluster and collocation analysis to meteorological metaphoric expressions in corpora. This analytical approach enables the identification of stable associative patterns underlying metaphorical extensions of meteorological vocabulary, such as *storm of protest, frozen silence, wind of change,* and others.

The methodological basis of the present thesis follows A. Stefanowitsch's approach [138], which involves searching for specific word forms within relevant denotational domains (thematic subgroups). To extract metaphorical expressions efficiently from large textual datasets, A. Stefanowitsch proposes several corpus-based retrieval strategies, among them:

– the analysis of prepositional structures – particularly those containing the preposition of, which often serves as a productive syntactic environment for metaphorical realizations of lexemes;

– the identification of metaphorical markers (in the sense of A. Goatly) such as *metaphorically speaking, figuratively speaking, so to speak, literally, or actually*;

– the examination of source and target domains, enabling systematic mapping of metaphorical conceptualizations across corpus data.

These procedures ensure both qualitative depth and quantitative reliability in detecting and interpreting metaphorical patterns in meteorological contexts.

A significant contribution to the development of the empirical strand within Cognitive Linguistics was made by representatives of the so-called Leuven school – S. Grondelaers, D. Geeraerts, and D. Speelman – united in the Quantitative Lexicology and Variational Linguistics (QLVL) research group at the University of Leuven. In their work "*A Case for a Cognitive Corpus Linguistics"* (2007), they argue for grounding Cognitive Linguistics in corpus data and systematically introduce the reader to the three core areas of corpus research: corpus design, information retrieval, and data analysis. Each area is illustrated through concrete examples, with pointers to the main corpus tools and resources, while the corpus method itself is considered within a broader methodological perspective – namely, in its relationship to other empirical methods, particularly experimental research. The particular significance of this work lies in the fact that it appeared almost a decade before the "empirical", or "quantitative", turn in Cognitive Linguistics was openly acknowledged, which allows it to be regarded as one of the early programmatic texts of this direction [147].

The discussion now turns to the specific procedure adopted in the present study for extracting and classifying meteorological metaphors. In the present study, an extended algorithm for extracting meteorological metaphors from linguistic corpora is proposed. A standard corpus query was supplemented with additional parameters aimed at improving the precision of metaphor identification, including the selection of various parts of speech, the analysis of concordances across different genres, the study of collocational patterns, and the comparison of statistical data.

Meteonyms were searched in combination with prepositions (of, in, with, under, after), in different word forms (– ed, – ing), and across various grammatical categories (_v*_j *_r *_nn*). Metaphorical occurrences were identified through

KWIC (Key Word in Context) analysis, followed by manual selection of metaphorical concordances. These concordances were further analyzed within subcorpora – spoken, fiction, academic, magazine, newspaper, and others – and classified according to structural-semantic and motivational attributes, as well as the principles of metaphorical transfer.

The corpus approach allows for the rapid retrieval of extensive linguistic data and facilitates detailed analysis of language use. Its advantages include representativeness, objectivity, and reproducibility. Metaphorical contexts were extracted manually using the method of continuous sampling through targeted corpus queries.

Table 4 summarizes the main corpus-based approaches to metaphor identification developed within modern linguistic research. Each method reflects a distinct theoretical orientation and level of automation, but all share a common objective – to ensure the systematic and reliable detection of metaphorical meanings in authentic linguistic data. The last column of the table indicates how each approach is used or adapted in the present study. The procedure is illustrated by the corpus line "…a wind of change is blowing…" (Appendix C).

Step 1 – contextual meaning. In this line, wind does not denote a current of moving air; it denotes an incipient, wide-reaching political transformation.

Step 2 – basic meaning. Consulting Merriam-Webster and the Concise Oxford Dictionary of Linguistics [148; 149], the basic sense of wind is established as a natural movement of air, perceptible as a current, blowing from one place to another. This sense is more concrete and more closely tied to bodily perception than the contextual sense identified in Step 1.

Step 3 – comparison. The contextual meaning (transformation) contrasts with the basic meaning (moving air), yet can be understood through it: both share the schema of an invisible force that arrives from outside, cannot be stopped, and displaces whatever lies in its path. Because the two meanings differ but can be related through this comparison, wind in this line is marked as metaphorical under MIPVU.

Table 4 – Main corpus-based approaches to metaphor extraction

Method / Author	Core principle	Procedure	Strengths	Limitations	How applied in this study
Metaphor markers (A. Goatly, 1997)	Metaphor is identified through explicit linguistic signals that the speaker uses to flag figurative meaning.	An automatic search is run for marker words such as metaphorically, so to speak, figuratively, like, as if.	Fast and easily automated; gives high precision for those metaphors that are openly announced as such.	Captures only metaphors that signal themselves through markers; misses the bulk of conventional metaphor in everyday speech.	Used as an auxiliary signal for explicitly flagged figurative language, alongside MIP
MIP / MIPVU (Pragglejaz Group, 2007; G. Steen et al., 2010)	A step-by-step manual procedure for identifying metaphor in context, lexical unit by lexical unit.	(1) For each lexical unit, determine its contextual meaning. (2) For the same unit, identify its more basic contemporary meaning. (3) If the two meanings differ but can be understood through comparison, the unit is marked as metaphorical.	Transparent and reproducible; treated as the de facto standard for corpus annotation of metaphor in international scholarship.	Labour-intensive; requires trained annotators; not directly scalable to very large corpora.	Applied as the primary identification procedure throughout Chapters 2–3, for every candidate metaphorical use
Metaphorical Pattern Analysis (MPA)	Metaphor is identified through patterns of co-occurrence	The researcher searches for lexical items belonging to a source domain (e.g.	Brings out systematic conceptual structures; serves as	Requires prior hypotheses about which source and target domains to	Adopted as the study's methodological basis for extracting source–target patterns from

(A. Stefanowitsch, 2006)	between lexical items from a source domain and a target domain.	war, journey) within texts about a target domain (e.g. love, argument); the resulting co-occurrence reveals the underlying conceptual mapping.	a bridge between Conceptual Metaphor Theory and corpus data.	compare; the final interpretation remains manual.	concordance lines
Collocational analysis (A. Deignan, 2005)	Conventionalised metaphor is identified through stable lexical collocations in which a word recurrently combines with the same set of partners.	The researcher extracts the most frequent collocates of a target word and compares its literal and figurative uses (e.g. price + heavy / high → VALUE IS WEIGHT).	Detects routine, lexicalised metaphor that may pass unnoticed in close reading; well suited to diachronic and genre-based comparison.	Depends on access to large corpora; the underlying conceptual mapping has to be inferred separately and is not directly given by the data.	Applied via wildcard collocate searches (e.g., wind of *, storm of *) to trace figurative extensions
Critical Metaphor Analysis (CMA) (J. Charteris-Black, 2004)	Qualitative close reading is combined with quantitative corpus verification, with attention to the social and ideological work that metaphors	(1) Candidate metaphors are identified manually in a sample of texts. (2) The candidates are verified through corpus frequency, collocation, and concordance. (3) The findings are	Balances analyst's intuition with statistical evidence; links metaphor to culture, ideology, and genre.	Requires expertise in both linguistics and discourse analysis; remains partly qualitative and interpretive.	Used as a corpus-verification step to confirm candidate metaphors against authentic discourse function

	perform.	interpreted in terms of discourse and ideology.			
Quantitative usage-based approach (S.Th. Gries, D. Divjak, 2010s)	Metaphor and polysemy are studied through statistical and distributional modelling, drawing on usage-based cognitive linguistics.	Multivariate statistics, collostructional analysis, and machine-learning tools are applied to large annotated corpora to model figurative use.	Yields objective and reproducible results; particularly suited for cross-linguistic comparison on the basis of measurable distributional properties.	Requires advanced statistical training and access to large annotated datasets; less accessible to a wide linguistic audience.	Not applied; cited only as theoretical justification for corpus-based methods in general

The scale of this verification stage can be quantified for the representative subset of meteonyms whose full concordance was examined by continuous sampling (Table 5).

To ensure the validity and precision of the collected data, a wide range of lexicographic and reference sources was consulted at the verification stage.

General-purpose English dictionaries and thesauri provided the baseline for checking meanings and usage: Roget's Thesaurus of English Words and Phrases [148], Merriam-Webster [149], Chambers's Twentieth Century Dictionary of the English Language [150], The Concise Oxford Dictionary of Linguistics [151], The Concise Oxford Thesaurus [152], the Concise Oxford Russian Dictionary [153], Oxford Phrasal Verbs [154] and the Oxford Collocations Dictionary [155].

Bilingual, translation and phraseological dictionaries were also used, including the Kazakh-Russian phraseological dictionary [156], the Oxford Dictionary of Current Idiomatic English [157], the Oxford Dictionary of English Idioms [158], Ü. Kenesbaeva's English-Kazakh Dictionary of Idioms [159], and the Kazakh-Russian dictionary [160].

A separate group of sources comprised etymological, terminological, thesaural and metaphor dictionaries. Metaphor and figurative language were verified against the Concise Thesaurus of Traditional English Metaphors by D. Wilkinson [161], A. Deignan's reference guide to metaphors [162], the Concise Dictionary of Metaphors and Similes [163], Speaking of Animals: A Dictionary of Animal Metaphors by R.A. Palmatier [164], and the Metaphors Dictionary by E. Sommer and D. Weiss [165]. Etymological data were checked against The Concise Oxford Dictionary of English Etymology [166], the Oxford Dictionary of Word Origins [167] and Brewer's Dictionary of Phrase and Fable [168], while specialized meteorological terminology was verified using the English-Russian meteorological dictionaries of M.I. Ainbinder [169], I.P. Geiber [170], and L.I. Mamontova and S.P. Khromov [171].

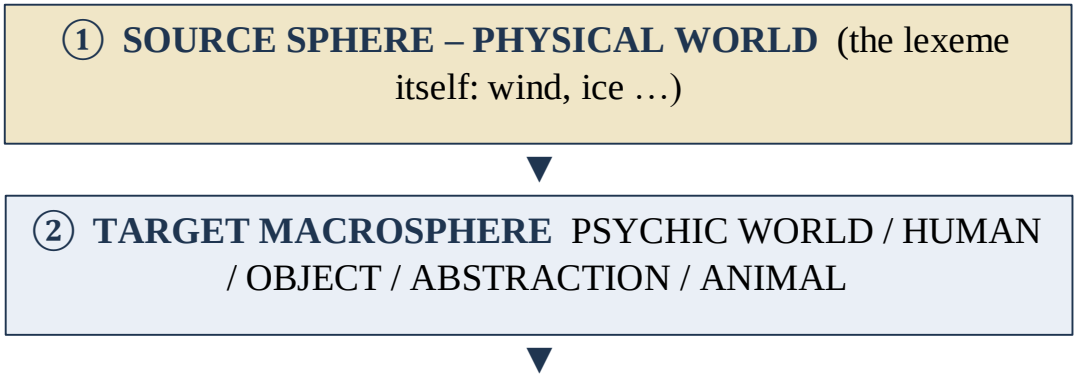
In order to define meteorological lexis in the Kazakh language, a set of topic-related dictionaries was used: the Kazakh word-formation dictionary [172]; the Dictionary of the Kazakh Literary Language [173]; K. Kayirzhan's collection of ancient Kazakh words [174]; T. Konyrov's Dictionary of Stable Similes of the Kazakh Language [175]; the Dictionary of Kazakh Synonyms by S. Bizakov, A. Bolganbayev and Sh. Dauletkulov [176]; A. Kaidar's A Thousand Apt and Figurative Expressions [177] together with the three volumes of his ethno-linguistic dictionary [178; 179; 180]; G. Smagulova's Dictionary of Semantically Related Phraseological Units [181]; the concise etymological dictionary of the Kazakh language by A. Yskakov, R. Syzdykova and Sh. Sarybaev [182]; and A. Hazimova's study of the national-cultural data of Kazakh phraseology [183]. The etymological dictionary of Turkic languages by E.V. Sevortyan [184] was also consulted, alongside several further Kazakh lexicographic, homonym and encyclopedic reference works [185; 186; 187].

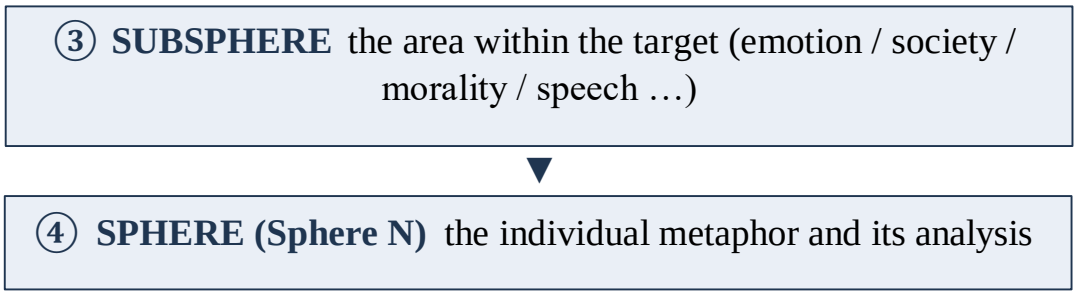
In order to identify relevant meteorological terms and data, a number of websites and meteorological services were used as well: the Met Office [188], British

Weather Terms [189; 190] and other online glossaries [191; 192; 193], which functioned as auxiliary reference tools for the research. Online lexicographic resources were likewise employed [194; 195].

The empirical verification of the selected meteorological lexemes was conducted through corpus analysis using the materials of the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA) [196]. These materials served as auxiliary glossaries, supporting the comprehensive analysis of meteorological metaphorization across linguistic systems.

Our study examines how a set of meteorological lexemes (*wind, storm, rain, snow, hail, thunder, lightning, cold, ice*, together with their Kazakh equivalents) develop figurative meanings. Every one of these words names a physical phenomenon. The analysis follows what happens to that name once it leaves the physical domain and starts to denote something else: an emotion, a person, a social process, an abstract quality. The underlying question is a simple one. The framework begins with G.N. Sklyarevskaya's typology of regular metaphorical transfer, which sets out eight principal directions [89, p. 81–94]. The eighth is the one that matters here: the transfer from the PHYSICAL WORLD to the PSYCHIC WORLD. G.N. Sklyarevskaya gives it only a few meteorological illustrations (*весна жизни, буря восторга, гроза гнева*: spring of life, storm of delight, thunderstorm of anger). This study takes that eighth direction and builds it out into a full inventory. Where G.N. Sklyarevskaya offers a handful of examples, the analysis works through an entire lexical field – *wind, storm, rain, snow, hail, thunder, lightning, cold* and *ice* – in both English and Kazakh, tracing the transfer for each lexeme in turn. PHYSICAL WORLD is her least active source sphere, the one that produces the fewest transfers [89]. That observation cuts two ways. It explains why the meteorological field has never been described systematically, and at the same time it invites a correction: inside this supposedly quiet sphere, the weather vocabulary turns out to be remarkably productive. In our research each lexeme is described on four levels, working downward from the source of the transfer to the single figurative unit. The source sphere is fixed once at the top and never changes inside a chapter, because the lexeme under study is always a phenomenon of the PHYSICAL WORLD. What changes is the target, as the schema below shows.





Schema 1. The four-level structure of each lexeme's description

The source sphere is not one of the descending levels: it is the constant point of departure. The same physical element is projected first onto the psyche, then onto the body, then onto an abstraction. This is why the macrosphere headings always take the form PHYSICAL WORLD → PSYCHIC WORLD, PHYSICAL WORLD → HUMAN.

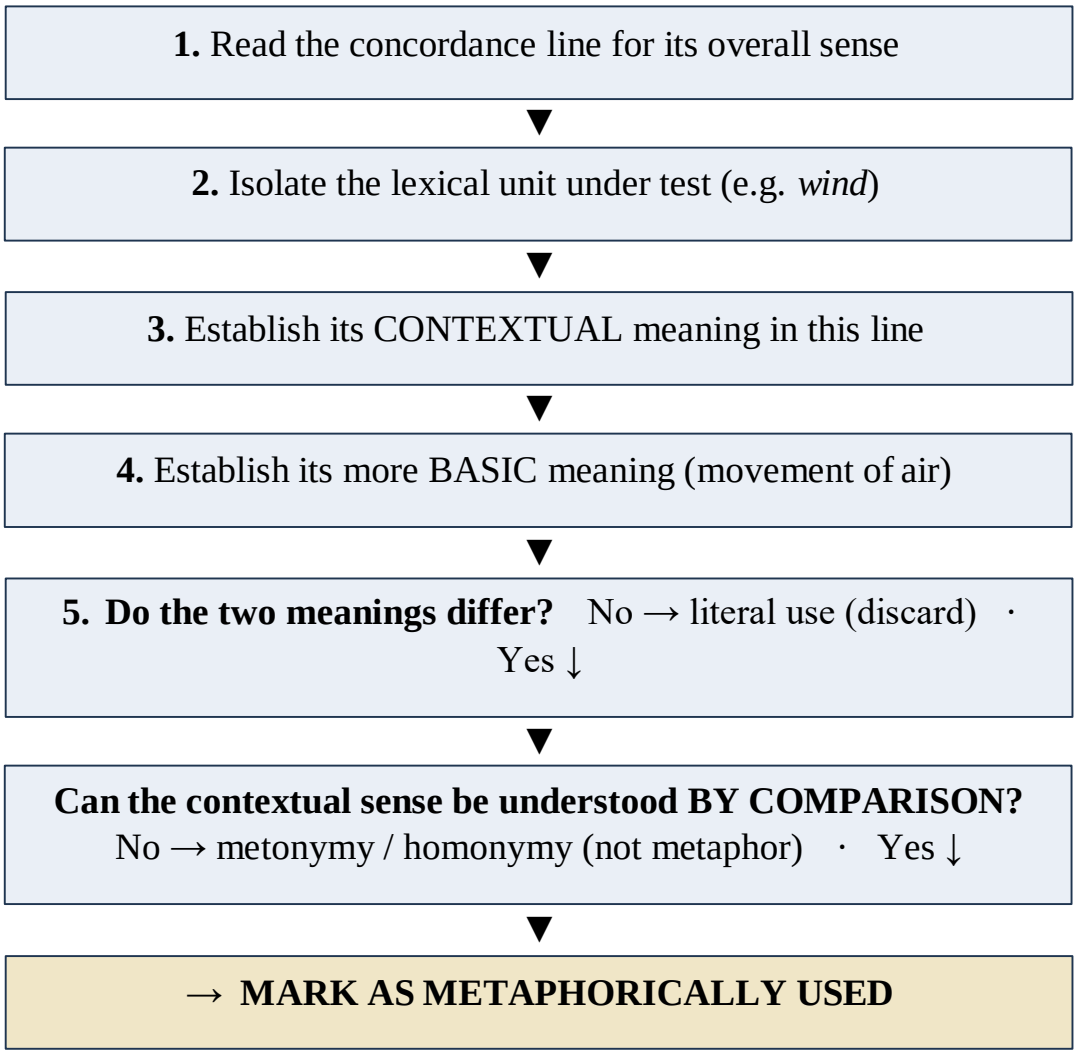
The comparative part of the study relies on five related but distinct analytical categories. A direction of metaphorical transfer is a correspondence between a source meteonym and a target sphere, recorded with an arrow (WIND → POLITICAL CHANGE); directions are the units counted in the section totals and in Tables 10 and 11. A conceptual metaphor is the cognitive mapping that motivates one or several directions and is recorded in the form TARGET IS SOURCE (POLITICAL CHANGE IS WIND). A universal mapping is a conceptual metaphor attested in both English and Kazakh with the same target and comparable motivating features. An English-specific or Kazakh-specific extension is a direction of transfer, or an elaboration of a shared mapping, that is attested in only one of the two languages and is grounded in its cultural experience. The macrosphere labels group the directions by the type of target (PSYCHIC WORLD, HUMAN, ABSTRACTION, OBJECT, ANIMAL); the anthropocentric orientation of transfer referred to in this dissertation covers the targets PSYCHIC WORLD and HUMAN taken together.

The analysis leans on a single classificatory framework, G.N. Sklyarevskaya's.

Before a transfer can be classified, the use has to be shown to be figurative rather than literal in the first place. For this the study relies on the Metaphor Identification Procedure (MIP) of the Pragglejaz Group (2007), together with its extended version MIPVU (Steen et al.) [139], a procedure still actively applied in corpus-based metaphor research across genres and languages [197]. These give the working test of metaphoricity.

The test turns on a contrast. A lexical unit counts as metaphorical when its meaning in the context at hand differs from its more basic meaning – the more concrete, bodily, or older sense the word has elsewhere – while the two senses can still be understood by comparison with one another. If there is no such contrast, the use is literal. If the contrast is there but cannot be bridged by comparison, what we have is not metaphor but homonymy or metonymy.

In practice, every meteonym pulled from the corpus was checked one unit at a time, following the steps below.



Schema 2. The MIP / MIPVU
identification procedure, applied to each lexical unit [139]

– This is made concrete using a worked example. Consider again the line "…a wind of change is blowing…" (Appendix C). The physical movement of air is the fundamental meaning of wind, but in this context, it refers to "political and social transformation." Although the two perceptions are distinct, the second may be clearly understood through the first: change is perceived as something that comes, spreads, and cannot be stopped – exactly how moving air behaves. The use is classified as metaphorical and goes into the inventory as POLITICAL CHANGE IS WIND since the senses are different and the analogy is valid.

Declaring what was omitted is also crucial. By isolating four nearby phenomena from conceptual metaphor proper, MIPVU also establishes the category's outer limit. Instead of being included in the list of useful metaphors, these were placed in a linguocultural group that was borderline:

– Similes and explicit comparisons (as fast as lightning), indicated by like or as, are treated by MIPVU as direct, signaled comparisons rather than indirect metaphors.

– The English connection between wind and breath (winded, second wind, long-winded) is an example of metonymy, where the relationship is contiguity rather than similarity [136; 140].

– Idioms that have become fossilized, such as “to raise the wind”, where the metaphorical meaning is read off without any active metaphorical transfer.

– Terminological compounds and folk meteonyms, such as Robin Hood's wind, the Cape Doctor, and colored winds, are examples. These are not productive transfers; they are fixed names (in Kazakh *қара / қызыл / қоңыр / сары жел*).

Whatever passed this test was then compared to the corpus itself using concordance, collocation, and frequency to ensure that the analyst's intuition was supported by actual usage rather than being a stand-in. Charteris-Black's Critical Metaphor Analysis [136] and A. Deignan's collocational technique [140] are followed in this corpus-verification step; A. Goatly's metaphor markers [135] provide an additional signal that can be automatically detected anywhere a figure is openly identified. The classification below only included units that passed the corpus check and the MIP/MIPVU contrast test.

Conclusions to chapter 1

Knowledge is not just a build-up of conscious and logical operations. It is also a manifestation of our intuitive, sensory, and creative capacities. Metaphor, then, works as a unique mechanism that ties these forms of knowledge together – and lets the thinking subject build new meanings out of the synthesis of reason and imagination.

1) Traditional metaphor theories read metaphor as a transfer of properties or qualities from one object to another on the basis of shared characteristics. The present study follows this structural-semantic understanding, treating metaphorization as a shift of meaning between lexical units grounded in shared semantic features.

2) Metaphor is a complex, many-sided phenomenon, and this is exactly why so many classification principles have grown up around it. In line with the objectives of this research, special attention goes to the structural and semantic classification, which distinguishes between linguistic and literary metaphors. The process of metaphorization is driven by various semes and associative features, and these provide the foundation on which the transfer and development of meaning take place.

3) The study of metaphor matters not only linguistically but also culturally and nationally. The metaphorical understanding of the world reflects universal laws of thought while at the same time taking different shapes across cultures. A metaphor embodies the collective perception of a people, and it serves as a fundamental linguistic mechanism through which both universal and national patterns of thought come to life.

4) Metaphor studies has moved toward a broader understanding of metaphor. It can no longer be viewed merely as a secondary nomination of objects or phenomena. Rather, metaphor reveals the national specifics of perceiving and interpreting the surrounding world and serves as a key to understanding the mental operations that structure human thinking. Metaphor is no longer regarded as an ornament of speech, but as a mechanism reflecting the structure of human thinking.

5) The national linguistic worldview represents a system of collective ideas

about reality, fixed in linguistic units. A central role in expressing and perceiving this worldview belongs to metaphor. From the standpoint of modern linguistic paradigms, the most productive way to study metaphor draws on structural-semantic analysis grounded in authentic corpus data, since this opens up a fuller analysis of linguistic form and meaning at the same time.

6) Finally, metaphor works as a tool for reconstructing and making sense of the worldview encoded in language. It acts as a bridge between language and culture, and this is what makes it one of the fundamental mechanisms of human thought. The integration of structural-semantic analysis with corpus-based evidence therefore turns out to be the most effective framework for studying metaphor in the present research.

7) Corpus linguistics is formed as a special branch of linguistics that enables philologists to use corpus material, retrieve linguistic data, and ensure a new level of empirical reliability in linguistic research.

8) The field is actively developing today. Therefore, the creation of an automated computer database of Kazakh texts, from both theoretical and practical viewpoints, represents one of the most important initiatives of Kazakhstan's linguistic policy. The establishment of the Kazakh National Corpus has been emphasized at the governmental level.

9) With the general progress of language-related computer technologies and software, linguistic corpora have become indispensable instruments for studying linguistic phenomena, allowing scholars to preserve and analyze extensive digitalized data in both written and spoken forms.

10) The establishment of the National Language Corpus will help solve many practical issues associated with computer-based linguistic research: studying Kazakh from synchronic and diachronic perspectives, developing teaching resources, monitoring lexical, grammatical, and stylistic features, and compiling dictionaries, textbooks, and reference materials. A written language is represented in a corpus in its most systematic and representative form.

11) The integration of structural-semantic analysis with corpus-based methods provides a reliable methodological foundation for the present study. The combination of qualitative metaphor identification (MIP/MIPVU) with quantitative corpus techniques (frequency, collocational, and concordance analysis) makes it possible to extract meteorological metaphors systematically and to verify them against authentic linguistic data, thereby ensuring both the validity and the reproducibility of the analysis carried out in the following chapters.

2 METAPHORIZATION OF METEOROLOGICAL LEXIS IN THE ENGLISH LANGUAGE

2.1 "Atmospheric air masses" in a metaphorical sense

The island location of Great Britain implies the great importance of weather conditions for the British. The sea state, Great Britain, has the temperate oceanic climate with a lot of rainfall. Great Britain is washed by the waters of the Atlantic Ocean, including the North and Irish Seas. Undoubtedly, the harsh climate and the wind have the significant impact on the activities of the British, associated with the maritime and agricultural industries. It is generally accepted that British weather is considered to be unique and unpredictable.

As noted earlier, meteonyms form a rather mixed group. To select and define them in a consistent way, we drew on *"Roget's Thesaurus of English Words and Phrases" (Penguin)* – one of the earliest and still most widely known ideographic dictionaries. It was first compiled by the British lexicographer Peter Roget in 1805 and published in 1852. We chose an ideographic, or thematic, dictionary precisely because it groups words by figurative field, which let us bring the scattered meteonyms together and approach their selection systematically [148].

Wind and storm in English have voluminous entries in various dictionaries. Among all the meteonyms examined, wind and storm yielded the highest number of metaphorical uses in the corpus – a finding that reflects their central place in English figurative language.

This thematic subgroup, which characterizes "atmospheric air masses" includes two meteonyms – *wind, storm* in the English – identified as the most frequent.

To highlight a thematic subgroup of words that characterize the "atmospheric air masses", we turned to Peter Roget's Thesaurus and found the following entries:

[Air in motion] Wind – N.. wind, flatus, afflatus, efflation[obs3], [obs3]; whiff, zephyr; blow, breeze, drift; aura; stream, current, jet stream; undercurrent, gust, blast, squall, gale, half a gale, storm, tempest, hurricane, whirlwind, tornado, samiel, cyclone, anticyclone, typhoon; simoon[obs3], simoom; harmattan[obs3], monsoon, trade wind, sirocco, mistral, bise[obs3], tramontane, levanter; capful of wind; fresh breeze, stiff breeze; keen blast; blizzard, barber [Can.], candelia[obs3], khamsin[obs3], norther, vendaval[obs3], wuther[obs3], windiness, thick squall, black squall, white squall, wind gauge, wind sock…

…windy, flatulent; breezy, gusty, squally; stormy, tempestuous, blustering; boisterous &c. (violent) [148].

From this dictionary entry, we see that many names of the wind differ in the force of impact, while being synonymous with each other; the thesaurus lists the types of wind, as well as the second meaning of wind: *flatus, afflatus, efflation, whiff, blow, drift, aura, black squall* – that mean a sudden and short-term increase in wind speed, a storm with black clouds and white squall is a sudden and violent windstorm at sea which is not accompanied by the black clouds generally characteristic of a squall [148].

blizzard is wind and snow, the following meteonyms have the maximum destructive power and amplifying speed *storm, tempest.*

hurricane according to the etymology it has links with Taino word hurakán, which means 'God of the storm', indigenous people in Native America named the storm after the Caribbean god of evil.

The following meteonyms have the similar meaning in terms of presentation but differ due to the strength scale: *whirlwind*, which means a flow of air moving around in a cylindrical shape at a ground level while tornado violently rotates winds and has also funnel shape appearing at ground and at clouds level...

The meteonyms *breeze, drift, fresh breeze* have the positive connotation in the meaning of a light breath of fresh breeze.

This is followed by derivative adjectives that differ with intensity and strength of impact *breezy and windy*, literally windy, then progressively *flatulent; gusty, squally; stormy, tempestuous, blustering; boisterous & c. (violent)*, these lexemes are synonymous.

We propose to consider the unique meteonyms in English, which are of foreign origin that mean the direction of the wind and have the geographical features. Corpus examples are as it follows:

levanter a strong easterly wind in the Mediterranean region [149].

harmattan a dry dusty wind from the Sahara blowing towards the West African coast, esp from November to March […Toward Christmas, the harmattan turned to a morbid gray fog that sagged so low that houses on distant streets...], *sirocco* a hot wind that blows from the Sahara Desert to southern Europe cambridge dictionary [198]:

1a: a hot dust-laden wind from the Libyan deserts that blows on the northern Mediterranean coast chiefly in Italy, Malta, and Sicily

b: a warm moist oppressive southeast wind in the same regions

2: a hot or warm wind of cyclonic origin from an arid or heated region [149].

[...But a waking daydream replays in my mind: Dusty *sirocco* winds blow in from North Africa, swaying strings of tangerine-colored beads that hang from...].

khamsin a hot southerly Egyptian wind Arabic *rīḥ al-khamsīn* the wind of the fifty (days between Easter and Pentecost) [149], […In the hot, dry khamsin weather last weekend at the start of the Jewish holiday of Shavuot, Israelis headed...], *tramontane* cold, dry south-southwesterly wind the journey of "tramontane" into English starts in Latin and begins with the coming together of the prefix trans- meaning "across" or "beyond", and montanus, meaning of a mountain, *capful of wind* An unexpected gust of wind. A light puff of wind, a slight breeze [148].

The above examples serve to illustrate the thematic group of the words, related to the "atmospheric air masses, the nature of the manifestation of its strength, the direction of movement", etc. In our research work, we analyzed the units *wind* and *storm* with the highest frequency.

After systematizing the meteorological lexis, we turned to corpus sources [199]. We selected the metaphorical units, related to the denotative sphere of *wind*, in a certain sequence: from the most frequent linguistic uses to the least frequent ones. To work with the corpus of the English language, we passed the necessary registration for content – access to BNC and COCA, after which we chose the

subcorpus BNC 100 million, British inside the COCA corpus, the main page is shown in Figure 2. After entering the *wind* lexeme into the search line, we sorted the context that highlighted the genre fiction prose (fiction) in the pop-up window section (sub-) genre.

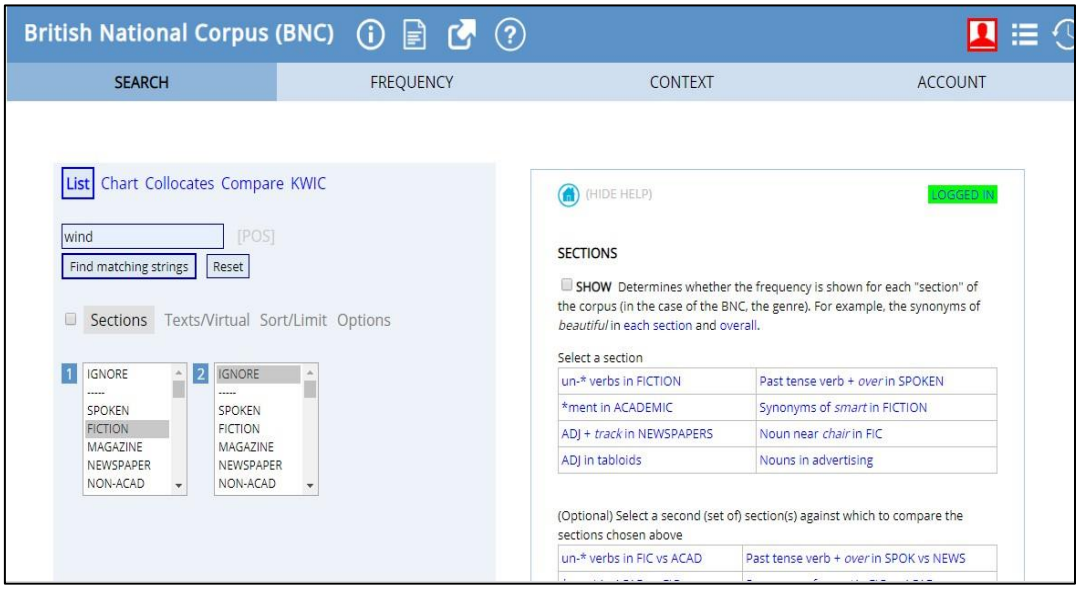


Figure 2 – BNC main page, search results for entry *wind*

The search *wind* showed 7,299 matches. In the spoken genre – 530; fiction – 2,484; magazines – 618; newspapers – 567; non-academic – 668; academic texts – 435; miscellaneous – 1,997. The maximum number of contexts with *wind* belongs to the genre of fiction – 2,484 and the minimum is academic texts, respectively.

In the chart below, the option CHART shows the overall frequency of *wind* in each genre section.

For 100 million words, 7,299 *wind* matches, for every 1 million tokens, the frequency of occurrence of *wind* is 72.99 words, respectively.

The relative frequency of wind varies moderately across newspapers, magazines, spoken, non-academic and academic texts, where the raw counts range from 435 to 668 (28.37–85.10 instances per million words), whereas fiction shows by far the highest relative frequency (156.13 per million words; 2,484 hits). It follows that metaphorical examples of wind are most likely to be found in fiction. The lowest relative frequency is found in academic texts (28.37 per million words; 435 hits), which implies fewer metaphorical units with wind (Table 6).

We analyzed the entire concordance (a list of all uses of the given search criterion; see Table 5); in our case, the keyword in the context is *wind*, where the metaphorical uses with the *wind* component were selected by continuous sampling.

Table 6 – Distribution of wind frequency according to the subgenre in the BNC

Section	Frequency	Size, million words	Per million words

SPOKEN	530	10.0	53.19
FICTION	2,484	15.9	156.13
MAGAZINE	618	7.3	85.10
NEWSPAPER	567	10.5	54.17
NON-ACAD	668	16.5	40.50
ACADEMIC	435	15.3	28.37
MISC	1,997	20.8	95.85
TOTAL	7,299		

Table 6 thus reflects the raw frequency of all uses of wind – literal, metaphorical, idiomatic and terminological – and characterizes only the corpus orientation of the search; the verification of these occurrences, which yielded 22 metaphorical contexts out of 7,299 concordance lines, is summarized in Table 5.

We also used the search for metaphors by collocates, the collocation of words in English – by clusters. Further, the most common metaphorical uses were selected by the method of continuous sampling. The largest number of concordance matches after *wind* was found with the meteonym *storm* in the corpus.

Our query *storm* from BNC returned 2262 hits in 876 different texts (98,313,429 words [4,048 texts]; frequency: 23.01 instances per million words) [0.182 seconds] of which we selected the following groupings of the metaphors.

The corpus analysis of the metaphorical meanings of the lexemes *storm* showed a high frequency of use.

The meteonym *storm* in English includes several natural phenomena at once, united by one name *storm – storm, thunderstorm, hurricane, storm with rain, hail, snow.* These lexemes *storm* have a similar meaning with the raging component but only in the English *storm* can be used as a noun and as a verb *to storm*.

The lexeme *wind* is the most frequent in the group and thus offers a logical starting point for our study.

SOURCE SPHERE (PHYSICAL WORLD): WIND natural phenomena, flow of air masses

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: Social, historical and political process

Sphere Wind as a political and social change

Regular direction of metaphorical transfer: WIND → POLITICAL / SOCIAL CHANGE

...a wind of change is blowing through this continent...

…a new wind of change in education…

…the cold wind of competition…

…the cold wind of economic depression…

The phrase wind of change is one of the most prolific political metaphors in English. It was popularized by Harold Macmillan in his address at Cape Town in 1960. The features that drive are motion, propagation and directionality, which show the unstoppable and communal nature of political change. The metaphor permits positive and negative evaluation: a fresh wind of change is welcomed, a chill wind of competition or depression is feared. Both valences have the same figurative frame: change as moving air.

Motivating features: motion, spread, directionality, the constant entrance of new conditions.

Sphere. Wind as disruption of order

Regular direction of metaphorical transfer: *WIND → DISRUPTION OF FAMILY / ORDER*

…when a system prevails which whirls families and scatters their members, as the wind whirls and scatters the leaves of autumn…

The image works via direct visual analogy: leaves ripped from a tree and strewed on the ground. What is taken from the source domain is impact, disorder and centrifugal movement, three traits that collectively carry the loss of unity. Applied to the family, the metaphor stands for the social or emotional disorder as a force which acts on individuals like the fall wind acts on leaves: it sunders them, drives them apart, leaves them without a common center. The wind whirls and scatters, and the explicit comparison phrase intensifies the metaphor.

Motivating features: centrifugal motion, dispersal, lack of coherence, the autumn parallel as image of deterioration.

Subsphere: Mental-intellectual life (thinking, perception, information)

Sphere. Wind as transmitter of information and signal

Regular direction of metaphorical transfer: *WIND → INFORMATION / SIGNAL*

…Hallo! you Cass! said Legree, what's in the wind now? – what news is there?

…a straw in the wind – a faint sign of something to come

…there were changes in the wind which may prove to be a sterner test…

The construction what's in the wind stands for wind as a medium of information transmission. The metaphorical transfer is based on the attributes of ambient presence, elusiveness and invisibility. News moves in the air as wind does, and can be detected by those who pay attention to its movement. In a straw in the wind, the metaphor depends on a fragment of the natural scene to serve as a symbol – a single bit of straw communicates the direction and force of an invisible river. In shifts of wind, wind becomes a warning of transformation. In all three architectures, the motivating elements are perceptibility via air and transporting unseen content.

Motivating features invisibility, presence in the air, perceptibility through movement, air as bearer of news.

Sphere. Wind as concept and inspiration

Regular direction of metaphorical transfer: *WIND → MENTAL / CREATIVE LIFE*

…I seek the wind of a word…

Here wind is not a force, not a disturbance, but a trace of something, a breath, a hint, a small movement that signifies a thought is forming. The transmission is conveyed by three features of moving air: lightness, movement and imperceptibility. They correspond to the inside of a person hunting for an idea, when what is looked for is virtually not there. The metaphor describes thinking as something one tries to capture the way one tries to catch a draught – by the displacement it leaves, not by direct sight.

Motivating features: lightness, fluidity, imperceptibility, the trace of something nearly not there.

Sphere. Wind as a path to discovery

Regular direction of metaphorical transfer: *WIND → MENTAL DISCOVERY*

…the ripples allowed the Ardakkeans to get wind of the…

We get the idiom to gain wind of from hunting – detecting the secret trail or scent of the quarry via the air that conveys it. The metaphorical transfer relies on the notion of wind as a channel that carries traces invisible to direct sight but discernible to those who know how to attend. The motivating aspect is air perceptibility: information comes the way fragrance comes, transported on the moving medium. The metaphor is closely related to the figurative uses of wind as carrier of news but different from them in its specifically olfactory-detective register: where the carrier-of-news image names public information dispersed in the social air, this register names private knowledge tracked down through skillful attention.

Motivating features: perceivable through air, scent and trace, skillful detection, the hidden becomes perceivable.

Subsphere: Ethics, spirituality, assessment

Sphere: Wind as bearer of bad news

Direction of metaphorical movement: ordinary WIND.

Regular direction of metaphorical transfer: *WIND → MISFORTUNE / EVIL FORCE*

…Yes, it's an ill wind blows nowhere, he repeated…

Ill wind is part of a set of attributive metaphors in which the meteorological aspect is linked to bad health and misery. The motivating aspect is incorrect or pernicious direction – wind which delivers problems rather than profit. The idiom comes from the sixteenth century, and in its full proverbial form (it's a bad wind that blows nobody any good) it encapsulates a contradiction that the corpus still contains: the failure of one is the gain of another. The metaphor does not convey weather as such but a moral perception of weather, where even direction itself is evaluative. The statement is noted, along with thou-sands of similar items, in the biggest annotated collection of English and American weather proverbs, superstitions and signals [200].

Motivating features: going in the wrong way, moral judgment of natural occurrences, the wind as the cause of damage, the proverbial reversal by which loss for one is gain for another.

Sphere. The divine influence of Wind

Regular direction of metaphorical transfer: *WIND → DIVINE INFLUENCE / MORAL FAVOUR*

…The wind of God certainly blew on that man…

…Even with the wind of generosity at their back…

The realm in question is that of divine, providential, or moral influence. The wind of God is the touch of divine grace, the wind of generosity behind them is the support of moral favor. The motivating features are personification, sacred or moral evaluation, and the wind as the visible sign of an invisible beneficial agency. Here the English wind takes on the characteristics of a supernatural actor, in line with an earlier tradition in which divine breath (pneuma, ruach, spiritus) and meteorological wind are in the same figurative area.

Motivating features: personification of supernatural or moral power; breath of the sacred; wind as evidence of providential activity; support from behind.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Characterization of a person (speech, mind)*

Sphere. Wind as emptiness and vanity

Regular direction of metaphorical transfer: *WIND → EMPTY SPEECH / EMPTY MIND*

…Ethel's voice. She's just an old windbag, she'll have forgotten by tomorrow…

The compound windbag comes from the notion of a bag full of air – emptiness, vanity, and verbosity. The motivating aspects include invisibility, weightlessness, and insignificance. The metaphor is drawn from a feature of wind that none of the previous spheres had stressed – its insubstantiality. If the political-wind register was one of force and direction, the crucial aspect here is exactly the opposite: wind as something that fills a place without weight. In speech and cognition this translates into the common evaluative line of empty words and empty heads as moving air and the lack of intellectual substance as the lack of physical mass.

Motivating features: weightlessness, absence of substance, the sack as container, speech without content.

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: amount, causality, estimation

Sphere. Wind surprise profit

Regular direction of metaphorical transfer: WIND → UNEXPECTED GOOD FORTUNE / PROSPERITY

…financial windfall – sudden, unexpected wealth.

The expression *windfall* – In the English of ordinary life, fruit falls from a tree in a sudden wind and is picked without any labor, its concrete origin preserved. The extension is figurative and depends on the traits of novelty, profusion and movement from above: wealth that comes unbidden, in a measure disproportionate to the labor involved. In financial English the compound has been fully lexicalized (a tax windfall, a windfall profit), but the underlying metaphorical transfer is still obvious.

Motivating features: suddenness, abundance, action from above, the gift aspect of the unbidden.

Sphere. Wind as force of vanishing

Regular direction of metaphorical transfer: *WIND → DISAPPEARANCE / OBLIVION*

…gone with the wind – irretrievably lost.

The expression *gone with the wind*, popularized in Margaret Mitchell's 1936 novel and later film, packs a whole representation of impermanence into four words. What makes it exciting is that it goes away without a trace. Wind takes things and what it takes never comes back. Where the disruption-of-order register took wind as a force that scatters but leaves the items on the ground, here wind operates on existence itself: the things, persons, and situations described by the structure are taken from the world like dust is cleared from a road. The metaphor has now been lexicalized as a quotation-idiom: modern speakers get the meaning "irretrievably lost" immediately, with the cultural reference adding further resonance.

Motivating features: irreversibility, dispersal beyond recovery, the wind as agent of erasure, cultural amplification through literary quotation.

SOURCE SPHERE (PHYSICAL WORLD): STORM *natural phenomenon, movement of air masses*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Social, historical and political processes*

Sphere. Storm as social conflict and crisis

Regular direction of metaphorical transfer: *STORM → SOCIAL / POLITICAL CONFLICT*

…amid a storm of public and governmental condemnation…

…there were no features of any abatement of the political storm…

…the storm of strikes at last abated in a gathering storm of discontent…

…after the storm of the breakdown, Europe is in a period of convalescence…

Storm is one of the most productive meteorological sources in English for collective existence. The corpus demonstrates that the metaphor is operating in two directions simultaneously, with intensity, suddenness, and social turbulence serving as the motivating features. One the one hand, it refers to the crisis as a storm of condemnation, a political storm, and a storm of strikes. Conversely, it implies the possibility of resolution: cyclones subside, and recovery ensues subsequent to the storm.

This dual interpretation is not a coincidence; it is a reflection of the cyclical logic inherent in the source domain, which dictates that weather always passes. It is this temporal shape that renders the storm such a precise image for public conflict.

Motivating characteristics include the implicit promise of resolution, social turbulence, cyclical structure, intensity, and suddenness.

Sphere. Storm as a collective response

Regular direction of metaphorical transfer: *STORM → COLLECTIVE RESPONSE / PUBLIC WAVE*

…It has been creating a storm of interest at department stores all over the country…

…to be greeted with a storm of ecstasy or alternatively of appalled disapproval…

Storm is the term used to describe the collective response of a large number of individuals at once, such as a wave of enthusiasm, attention, or shock that traverses a throng, market, or public. The underlying image is the same, but a tempest of interest is desirable, while a storm of appalled disapproval is not. The motivating characteristics of this group are distinct from those of the inner-emotion group in that the emphasis is on rapid spread and visible scale, rather than destructive force. In this regard, the tempest is more akin to a meteorological phenomenon that is observed from a distance than to one that is experienced from within.

Motivating features: rapid spread, visible scale, the crowd as a meteorological surface, observation from distance.

Sphere. Storm as crisis with a calm centre

Regular direction of metaphorical transfer: *STORM → CRISIS WITH OBSERVATION POINT*

…Margarete Buber-Neumann lived and suffered much in the eye of the storm of history that tore Europe apart…

The eye of the storm is the calm, clear center of a cyclone, with the most powerful winds swirling around it. The compound itself contains a visual metaphor (the circular opening of the cyclonic system looks like a human eye); in figurative use it undergoes a further transfer: the speaker who is in the eye of the storm is at the center of events that are tearing the world around them apart, but is also, paradoxically, in a place of momentary stillness from which everything else is visible. The driving qualities are centrality, paradoxical quiet in violence, and the place of the witness. The metaphor is one of the most fertile English imagery for the privileged-and-vulnerable position of being at the center of historical tragedy.

Motivating features: center, paradoxical stillness, witness position, visual analogy of eye-shaped clearing.

Subsphere: Life of Affect and Emotion

Sphere. Storm Intensity of positive emotion and enthusiasm

Regular direction of metaphorical transfer: *STORM → POSITIVE EMOTION (PASSION)*

…His mouth covered hers in a storm of intemperate kisses…

…who could whip up a storm in her heart…

…a primeval need which united them almost at once in a storm of love and need as fierce as the one which raged, unheard, outside…

Here storm has an evaluative charge that is clearly positive: passion, desire, intensity of devotion. The image is that of a sensation that overwhelms, but the speaker does not resist, quite the reverse. The third example is especially significant in that it juxtaposes the inside storm of love and desire with the real storm outside, and considers the two as parallel events of a similar force. What the source domain brings is not destruction but scalability. The motivating elements include intensity, multiplicity (storm of kisses has numerous kisses) and overpowering nature.

Motivating features: intensity, scale, multiplicity, the embraced overwhelming, parallel between inner and outward storm.

Sphere. Storm as criticism and verbal assault

Regular direction of metaphorical transfer: *STORM → NEGATIVE EMOTIONAL OUTPOURING*

…March meets mob violence governor faces storm of abuse…

…Hitler was by no means altogether excluded from the angry storm of criticism…

…she was suddenly lashed by a storm of hysterical accusations…

…This unleashed such a storm of protest…

…The second created a storm of controversy…

Redirecting the same source image gives the opposite evaluation. Here the storm is from outside the speaker, a storm of abuse, of criticism, of accusations. And the person is at the receiving end of it. The verb lashed, in particular, still has a strong meteorological echo: rain or hail blasted sideways against an unprotected target: the same image can have opposite valences depending on whether the speaker embraces or suffers the overpowering.

Motivating features: intensity, multiplicity of utterances, the person as patient rather than agent, the meteorological remnant in lashing, liberated.

Sphere. Storm as rage doing on the body.

Regular direction of metaphorical transfer: *STORM → ANGER / FORCE UPON THE BODY*

…A storm of rage shook her…

…Like the oak, bent under the pressure of a fierce storm, he comes up erect too soon…

…I said this to myself, resolutely, by way of answer to the intimidating storm…

This sphere includes examples where the storm is not an event happening around the individual, but something doing things to the person. It shakes, it jars, it bullies, it threatens to snap. The grammar views the human body and the human will as objects of atmospheric force. The power of the metaphor lies exactly in this passive attitude. The motivational elements – power, energy, the high activity of air masses – are properties of weather, but in these situations they are describing what wrath, fear or moral pressure feels like from the inside.

Motivating features: the strength, the body as patient of force, the air pressure as figure of interior experience, the bent oak as image of human resistance.

Sphere. Storm as the climax of emotional overload

Regular direction of metaphorical transfer: *STORM → SIMULTANEITY OF MULTIPLE EMOTIONS*

…There were picnics, parties, theatricals – a perfect storm of unending pleasure…

…There are a few minutes, perhaps not more than three or four, when I exist in a bewildering storm of hope, joy, incomprehension and dread…

The metaphor of the storm is pushed to its limit here. First, it piles pleasures on pleasures till they approach the intensity of weather, second, it isolates a brief but acute interior state when many opposing sentiments – hope, joy, incomprehension, dread – are simultaneously present. What makes this world one of motive is the simultaneity of incompatible elements: a storm is not one thing but several things at

once, wind and rain and noise and pressure and light, and that simultaneity is what makes it an excellent image for emotional saturation. This very same metaphorical paradigm is lexicalized in the English perfect storm (also commonly used in policy and disaster discourse).

Motivating features: incompatible materials coexisting, density, saturation, storm as a composite event.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Physical actions and behaviour*

Sphere. Storm as angry departure

Regular direction of metaphorical transfer: *STORM → ANGRY HUMAN ACTION*

…'But that was a very precious jewel!' she stormed…

…Chelsea fans applauded Le Saux off the pitch but the cheers turned to boos as he stormed off…

…The voice surveyed the wasteland it had made and stormed away…

…Hulme stormed back, 'But using sexual harassment to describe someone…'

In this set of circumstances storm is no longer a noun describing a meteorological occurrence but a verb characterizing a person. Suddenness, intensity, energetic movement are the motivating elements, just what is seen in a genuine storm, and they are translated nearly without change to human activity. Someone *storms off, storms away, storms back*: the body moves with the suddenness and power of terrible weather, and the gesture is understood as fury before a word is said. The verb functions both as an adverb and as a mood descriptor. Note related construction stormed to triumph (sports-domain aggressive advance, e.g.)

Motivating features: sudden movement; rage as cause; body as weather; intensity of departure or retort.

Sphere. Storm as strong advance

Regular direction of metaphorical transfer: *STORM → POWERFUL FORWARD MOTION*

…After In-Keeping, the 11-10 favourite, had stormed to a five-length success…

…Bath had stormed away in the last five minutes of extra time to win this semi-final…

…True, I'm at the rear but I enjoy the scenery; the chats with spectators and I storm in…

This sector is the sports-and-competition register of storming. Historically, it comes from the military term storm (to conquer a fortified position by assault). The motivating qualities here are not rage but forward speed, definitive overcoming of opposition and the rapid attainment of victory. The horse charged to victory; the team charged to victory. The metaphor remains military, but changes its direction from attack to competition in motion: what is seized by storm is now the lead, the win, the place in front.

Motivating features: Forward momentum. Decisive overcoming. Sports-competitive register. The military source rechanneled into athletic progress.

Sphere. Storm as creative force

Regular direction of metaphorical transfer: *STORM → PRODUCTIVE CREATIVE ACTIVITY*

…She is pictured with sous chef Mark Jordan whipping up a storm in the kitchen…

In this domestic register the metaphor turns to the constructive rather than the destructive. To whip up a storm implies activity that is intense, rapid and slightly chaotic, but the confusion is productive rather than destructive – what the cook makes is food, not damage. The motivating qualities are motion, circularity and intensity but the evaluation is inverted. The same figurative machinery that produces a storm of abuse here produces a storm in the kitchen (productive creativity). One of the structural elements of the English storm metaphor is its evaluative flexibility; the same source picture bearing opposite valences depending on context.

Motivating features: movement, roundness, strength, generative mess, the homey register as affirmative frame.

MACROSPHERE: PHYSICAL WORLD → OBJECT

Subsphere: *Military sphere, material projectiles*

Sphere. Storm as military aggression

Regular direction of metaphorical transfer: *STORM → MILITARY ASSAULT / PROJECTILES*

…a storm of missiles…

…a storm of bullets…

…a storm of arrows…

…storm-troops – assault soldiers.

A substantially comparable addition brings storm into the lexicon of battle. The metaphor depends on a varied selection of aspects from the core storm image– intensity, quantity, and forceful descent – and the image is obviously visual: projectiles falling on a target the way hailstones fall on open terrain. The pattern is a repeating move in English: natural aggression as the model for human hostility.

Motivating features: impact density, hard fall, amount of projectiles, natural model of human hostility.

The analysis of the two lexemes revealed 21 regular metaphorical transfers.

The verb to wind, meaning “to coil, to wrap, to bring to closure,” comes from a different etymological root than the noun wind (moving air). Old English wind (n.) comes from Proto-Germanic *windaz, whereas the verb wind (v.) comes from Old English windan “to twist, to coil, to wrap, to brandish”. The two variants are etymologically unrelated homonyms. Constructions such as wind down, wind up, winding avenue do not convey the meaning of metaphorical expansions of the meteorological wind. They are very straightforward applications of the homonymous verb of coiling.

…renewed talk of winding down both military alliances…

…Mr Anthony Lester, QC, told the Court of Appeal yesterday in winding up an appeal…

…It was a year since he had come up this steep, winding avenue…

The verb *to wind* in the senses *to wind down* (to reduce activity, to bring to a gradual close) and *to wind up* (to bring to a formal conclusion, to terminate legal proceedings) derives from the older sense *to coil* thread onto a spindle – at the end of the work, the thread is wound up onto its reel. The participial form *winding* (*a winding avenue*) names a curving spatial trajectory, again from the same *to twist* sense. These constructions are accordingly classified here as separate from the metaphorical extensions of the noun *wind* (moving air). They are noted for completeness but excluded from the main metaphorical inventory.

The relation between *wind* (moving air) and *wind* (the breath of a living creature) is metonymic – a part-whole relation within a single figurative field (air in motion both outside and inside the body) – rather than metaphorical cross-domain projection.

...winded horses – horses out of breath.

...Not my stomach winded, not my nose bleeding…

...The employers, initially taken by surprise, regained their second wind…

...The legal process is long winded; it can outlast the life of the patent…

The English wind gives rise to a productive secondary sense "breath of a living creature", yielding the constructs winded (out of breath), to regain one's second wind (to recover energy), and long-winded (prolonged in length, tedious, from speaking that utilizes too much breath). These constructs are metonymic rather than metaphorical in relation to the meteorological wind; the same lexical form refers to the air outside the body and the air inside it.

Phraseological units with demotivated original transfer. The figurative meaning is extracted by the contemporary speakers immediately form the set expression as a whole without carrying out the live cross-domain projection.

...to raise the wind – to obtain the money needed for a purpose.

...Sail close to the wind – to risk operating near the limits of legality or propriety.

...between wind and water – at the most vulnerable point.

To raise the wind goes back to medieval beliefs that spirits may be invoked to bring wind to becalmed sailors. Gradually the literal connotation dropped out and the phrase came to indicate securing the means, generally money, to put something in motion. *Sail close to the wind*. Originally a naval phrase, meaning to sail as close to the wind as possible; metaphorical use is known from the mid-nineteenth century. Between wind and water. In nautical parlance, the part of a ship's hull at or below the waterline, the most exposed part to the combined assault of wind and water; figurative use from the first half of the 1800s. In all three instances, the figurative meaning of the phrase is accessed directly by the current speaker.

They are therefore considered petrified phraseological units and not creative cross-domain metaphors.*...Cape Doctor* – a strong south-easterly wind in South Africa, credited with cleansing the air of Cape Town.

...Harmattan – a dry trade wind in West Africa.

...Billy Wind – a strong, gusty wind.

...Robin Hood's wind – a piercing north-easterly wind on the Yorkshire coast.

...*Lambing storm, lamb storm* – spring storm at lambing season.

...*Gowk storm* – a gale at the end of April / beginning of May (gowk = cuckoo).

...*Gosling blast* – a fall of sleet or rain resembling flocks of birds.

...*White squall* – a sudden tropical gust without warning, marked by broken water.

...*Cow quaker / cow storm* – a May storm, named for its effect on newly pastured cattle.

English names for wind and storms are culturally rich, and are based on personification, animal association and visual analogy These names are not creative cross-domain metaphors but folk-terminological nominations of particular weather events. Some of these (Cape Doctor, Harmattan) are also lexical borrowings into English from regional and colonial contexts. They are considered in the linguocultural block below, but are not included in the inventory of the productive metaphorical transfer.

The direction of metaphorical transfer is reversed – body part → meteorological phenomenon, not the standard PHYSICAL WORLD → HUMAN direction of the main analysis.

...*Eye of the wind* – the precise direction from which the wind is blowing.

...*Teeth of the gale* – the most violent part of a gale.

...*Fishtail wind* – a wind that shifts rapidly side to side.

...*Bull's Eye Squall* – a sudden vortex marked by a small round cloud at its centre.

...*Helm wind, storm belt, wind sock* – terminological compounds based on shape and function.

...*Three o'clock wind, nine o'clock wind* – military jargon for cross winds at right angles.

A small but methodologically interesting set of English compounds works in the opposite direction from the main analysis: aspects of the human body or familiar items are projected onto meteorological occurrences. The eye of the wind and teeth of the gale make the wind a body that can see and bite; fishtail wind compares lateral shifts in direction with the motion of a fish's tail; Bull's Eye Squall is named for the little circular cloud at the center of the vortex. The motivating features are visual analogy, functional similarity and shape.

These compounds are identified as reverse-direction transfers (BODY / OBJECT → WIND) and are included for the sake of completeness, but they are not counted among the metaphorical transfers of the main analysis, which all act in the standard direction PHYSICAL WORLD → HUMAN.

One notable element of the English wind lexicon is the density of names taken from a recognizable rural and maritime environment, and the propensity of ascribing a face and a moral character to the wind. The spring weather when the ewes are giving birth is known as lambing storm and lamb storm, when snowflakes drift in the air like the wool of newborn lambs. The gale is called the *Gowk storm* because it stops the coming of the cuckoo. The gosling blast compares falling sleet like a group

of baby geese. *Cow quaker*. The storm that frightens the cattle when they are first brought out to pasture in May. White squall is a sailor's term for a rapid tropical gust that comes out of nowhere and is recognized by the shattered water it leaves behind. These names are for a world where the calendar of the weather and the calendar of the farm and the ship were the same calendar. The immense scope of this folk stratum is revealed in Richard Inwards's famous anthology Weather Lore, initially gathered in 1869, whose thematic parts on wind, frost, snow, ice and thunder foreshadow the very groupings analyzed in this study [201].

Robin Hood's wind – the harsh, raw north-easterly wind off the Yorkshire coast which, tradition has it, Robin Hood himself could not stand – brings the figure of the medieval forest hero into modern weather discussion. The strong gusty wind through a piece of folk personification is Billy Wind. The Cape Doctor provides the figure of a doctor to the south-easterly wind that clears the air of Cape Town. In older English terminology whirlwinds are connected with the devil and his schemes. At the other end of the spectrum we have the wind of God (divine blessing) and the wind of charity behind you (moral favour). What these idioms have in common is a persistent practice of ascribing a face and a moral character to the wind, whether heroic, demonic, divine, providential, or therapeutic. The English speaker who experiences Robin Hood's wind on the Whitby shore, or who speaks of an evil wind that blows nobody good, is using a lexicon in which the weather has long been a register of human and superhuman intention. One of the more tenacious facets of the English worldview is its historical reluctance to see the wind as just a physical phenomenon, and its concomitant desire to see it as a sign.

The two named winds addressed above are attested independently as regional meteorological designations, and not created for the purposes of this investigation. Robin Hood's wind, given by the American Meteorological Society, is a harsh, piercing wind bearing saturated air around freezing point [202]. Cape Doctor is also a standard toponymic wind-name for the south-easterly wind of the Cape Town region, attested from at least 1861 and recorded in both the Glossary of Meteorology and the Dictionary of South African English [203; 204]. Thus, they are introduced into the corpus as active folk-meteonyms through a stable terminological history and not as an isolated literary usage.

The expression to gain wind of anything is from hunting. The dog catches the scent of the quarry on the moving air. The wind here is neither a hindrance nor a force but a medium; what passes through it passes invisibly, and what is borne upon it can be sensed by those who know how to listen. The same logic applies in the social and political realm, where a wind of change is in the air before it is named in any document.

The English wind therefore plays a subtle epistemic role. It carries news, rumor, inchoate change, the foretaste of what is to come but has not yet manifested. There is a long history behind this function of hunters, sailors and farmers for whom reading the wind was a practical skill of daily life, and the corpus suggests that the figurative descendants of that skill are alive in contemporary English usage – anywhere a speaker claims to get wind of a development before it has become public knowledge.

What is particular about the English wind is that it is metonymically identified with the breath of the living body. The same word form means the air outside the body (the wind blew across the moor) and the air inside it (he was winded by the blow / she paused for breath, then got her second wind / a long-winded speaker). English makes productive use of this metonymy in the language: winded names loss of breath, second wind names its recovery, long-winded names speech extended beyond its useful breath, broken wind names the chronic respiratory failure of horses. So the English thermal-respiratory lexicon regards the human and animal body as a miniature atmosphere with its own internal weather, and the same lexeme applies to both. It is a structural trait that English shares with various Indo-European languages (Latin spiritus, Greek pneuma, Hebrew ruach all name both wind and breath).

The cyclical temporal logic of meteorological storms – they rise, peak and pass – gives English speakers a precise image for bouts of public confrontation that are strong but perceived to be restricted in time. Where the wind is the carrier of slow incipient change, the storm is the metaphor for the severe crisis which is also a passing occurrence [205].

2.2 "Atmospheric solid and liquid precipitation" in a metaphorical sense

No less important for understanding the material under study is the group of atmospheric precipitation (both solid and liquid) – *snow, hail, and rain*. Being directly observable and bodily experienced phenomena, forms of precipitation possess a high potential for metaphorization, form an extensive system of figurative meanings, and are at the same time characterized by a high frequency of use.

This thematic subgroup, which characterizes "atmospheric precipitation, both solid and liquid form," includes three meteonyms – *rain, hail, and snow* in the English, and – identified as the next most frequent in the English.

In *Roget's Thesaurus*, the lexeme "rain" is represented by an extensive synonymic cluster that encompasses *rain, rainfall, serein, shower, scud, downpour, driving rain, drenching rain, cloudburst, predominance of Aquarius, reign of St. Swithin, mizzle, drizzle,* and *dropping* [148, p. 149].

Alongside the literal designations, the thesaurus also records a rich idiomatic layer illustrating metaphorical usage: *rain hard, rain in torrents, rain cats and dogs, rain pitchforks, pour with rain,* and others [148]. These expressions demonstrate the wide semantic and stylistic range of the concept "rain," revealing its potential for both literal and figurative interpretation in the English linguistic picture of the world.

The corpus query *rain* returned 6235 hits in 1316 different texts (98,313,429 words [4,048 texts]; frequency: 63.42 instances per million words) [0.18 seconds] from the BNC. From these context we have chosen sentences with metaphoric uses and then we tried to identify the most frequent collocates; many of them were repeated and had the same meaning.

We also classify snow as semi-solid precipitation, and in Roget's Thesaurus we found the following lexemes *in group snow, snow-white; snowy; white as driven snow.*

Our query *snow* returned 3443 hits in 839 different texts (98,313,429 words [4,048 texts]; frequency: 35.02 instances per million words) [0.187 seconds]. The following table shows collocates with snow from COCA.

A total of 3,943 matches were found, which were distributed according to the dominant collocates, the number of which is 100, the first 76 are displayed in Figure 3.



Figure 3 – Collocates with *snow* from COCA

We tried to group the received search results according to the spheres of metaphorical transfers. In total, more than 7,000 concordance lines were analysed: 3,443 hits in the BNC and 3,943 collocate matches in COCA (the BNC figures are given in Table 5). Among them, the most frequent metaphorical usages with the component *snow* were selected.

We refer the crystalline formations that fall out of the atmospheric layers in the form of hail, which may differ in size to the solid sediments. Our query *hail* from BNC returned 323 hits in 242 different texts (98,313,429 words [4,048 texts]; frequency: 3.29 instances per million words) [0.182 seconds].

SOURCE SPHERE (PHYSICAL WORLD): RAIN *natural phenomenon, precipitation*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Social life and human order*

Sphere. Rain as disruption of planned events

Regular direction of metaphorical transfer: *RAIN → DISRUPTION OF SOCIAL PLANS*

…the final round of the $750,000 Tallahassee Classic was rained out…

…five cricket fans, refused a ticket refund when an England game was rained off…

…their challenge meeting away to Wolverhampton this evening has been rained off…

…rain is threatening to wipe out more meetings later this week…

In these situations rain is used in a metaphorical sense to refer to cancelation, interruption and hindrance of scheduled activities. The features of motivation are: destruction, suddenness, interference from outside. Rain is depicted as a potent external force that throws the human order into disarray. The metaphor points to the tension between the untamable power of nature and human design. It is no coincidence that the verbs rained out and rained off have entered the English language most securely through the terminology of cricket and outdoor competition – sports with a strong link to British weather. The lexicalization of the verbal forms (e.g. a match was *rained off* rather than a match was disrupted by rain) demonstrates that English has fully integrated the meteorological agent into the syntax of human social events.

Motivating features: external interference, suddenness, contrast between natural force and human design, verbalization of the meteorological agent.

Sphere: affective life Subsphere. tears as rain

Regular direction of metaphorical transfer: *RAIN → HUMAN GRIEF*

…the winds would sigh humanely, and the clouds rain tears…

Here two meteorological aspects are addressed at the same time. The wind sighs and the clouds weep, and the result is a twofold image where the sky as a whole is imbued with the motions of a grieving person. The transfer depends on a limited number of motivational aspects – form, movement, quantity and directionality – but the heavy lifting is done, above all, by the visual similarity between raindrops and tears. They both fall vertically. They both come in numbers. They're both linked with misery in the cultural imagination, not joy. The example demonstrates that English readily interprets weather as mood: terrible weather and bad emotion are in the same expressive range, and the difference between describing the sky and describing a state of mind collapses totally here.

Motivating features: visual analogy of rain drops with tears, vertical fall, plurality, cultural association of weather with mood.

Subsphere: Moral and evaluative life.

Sphere: Acid rain symbolizing the moral decay

Regular direction of metaphorical transfer: *ACID RAIN → MORAL TOXICITY*

…better that Aretha Franklin had not been born than that we should endure a drop more of this acid rain of spittle…

…useless to list her achievements under this acid rain of self-destruction…

…by the acid rain of modern legal values…

These examples extend the rain image into the register of moral judgement. The motivating features are corrosiveness, repeated impact, and chemical/moral damage.

The compound *acid rain* – a relatively recent ecological term, itself already a lexicalized metaphor connecting chemistry to meteorology – has been borrowed back into the figurative system as an image of moral toxicity. The case is methodologically interesting as a third-order metaphorical extension: the scientific compound *acid rain* is transferred from chemistry to meteorology, and subsequently

this chemical is transferred from meteorology to morals. The case is an example of the metaphorical fund being replenished through scientific and journalistic use. Acid rain eats away at the moral surface from the inside.

Motivation is corrosive, it is a repetitive chemical impact, it is steady disintegration, it is the figurative extension of the third order by scientific compounding.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Physical aggression and impact upon the body*

Sphere. Rain as physical attack

Regular direction of metaphorical transfer: *RAIN → AGGRESSIVE IMPACT*

…the punches and kicks rained down…

…bricks rained around him, crushing him into the street…

…glass and doughnuts rained around me…

…fire rained on the city's crowded streets…

…wreckage rained down…

The kinetic similarity between falling raindrops and fast descending projectiles, fists or flames, is the motivating feature, along with the destructive intent or destructive consequence that differentiates attack from mere precipitation. The metaphor shows rain as an active agent of pressure and assault, an image of relentless downward movement from every direction. The anthropomorphic impression of rain as an aggressor is the projection of natural processes onto the physical human experience of war, chaos, the catastrophe seen from below.

Motivating features: kinetic descent, hostile purpose or result, continual impact, body as exposed target.

MACROSPHERE: PHYSICAL WORLD → OBJECT

Subsphere: *Aggregate falling matter*

Sphere. Rain as mass descent

Regular direction of metaphorical transfer: *RAIN → MASSIVE DOWNWARD MOTION OF OBJECTS*

…feed on the rain of debris from above…

…shredded paper and confetti rained on the players from skyscrapers…

…the increasingly heavy rain of ashes…

…in a rain of sparks and blackened timber…

Here *rain* is used outside meteorology to name any large downpour of many particles or items. Multiplicity, vertical motion, density, and coverage are the motivation for the metaphor. Falling or dispersing items are depicted as rain, via the likeness of visual dynamics. The construction rain of N (*rain of debris, rain of confetti, rain of ashes, rain of sparks*) has become one of the most productive English templates for visualizing aggregate falling matter: the physical properties of rainfall are transposed onto any situation involving multiplicity and simultaneity of impact, irrespective of the specific material involved.

Motivating features: plurality, vertical movement, density, simultaneous impact, visual cohesion of many descending pieces.

REVERSE TRANSFER: OBJECT → PHYSICAL WORLD (DESCRIPTIVE)

Subsphere: *The phenomenon described through a material object*

Sphere. Rain as continuous fabric

Regular direction of metaphorical transfer: *RAIN → FABRIC / COVERING MATERIAL*

…rain comes down in sheets…

Rain falls down in sheets converts precipitation into something with surface and continuity. The transfer is triggered by continuity, concentration and shape resemblance: a sheet of rain has the visual coherence of a cloth stretched between sky and earth. The metaphor foregrounds the embodied process of metaphorization, in which tactile and visual experience – a wet towel over a body – underlies language imagery. The structure in sheets consolidates the drips into a continuous surface whereas individual drops would be perceptually disconnected.

Motivating features: continuity, surface coherence, vertical extension, visual resemblance to stretched fabric.

Having considered the semantic fields of the lexeme rain, let us shift to the lexeme snow.

SOURCE SPHERE (PHYSICAL WORLD): SNOW *natural phenomenon, precipitation*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Psychological states*

Sphere. Snow as overwhelming burden

Regular direction of metaphorical transfer: *SNOW → PSYCHOLOGICAL OVERLOAD*

…Old Red Cheeks gets snowed under every year with letters from children…

…I'm snowed under with work and I've taken too much time off…

…my boss is still snowed under with work that we haven't really focused on…

In this set of circumstances snow names not weather but a state of being overwhelmed. What makes it motivating are abundance, pressure and involuntary immobility and it takes its force from a very tangible bodily memory: the feeling of standing under or being caught in a dense covering of snow which holds the body in place and prevents movement. The corpus demonstrates the consistent mapping of the bodily state to psychological and professional states. Letters, work, commitments accumulate on the person, like snowdrifts on a road, and the conclusion is the same in both cases: the person can no longer move ahead through the volume that has accumulated around them. The metaphor is based on lived experience, and it is this embodied nature that accounts for its productivity: weariness and overload are abstract feelings, and the snow image gives them a recognizable physical shape. In modern English office speech snowed-under has become almost a set complaint.

Motivating features: abundance, weight, immobilization, the body as a vessel resisting accumulation, embodied physical experience.

Subsphere: *Moral and evaluative life*

Sphere. Snow as deceptive cover

Regular direction of metaphorical transfer: *SNOW → CONCEALMENT / DECEPTION*

…he is always on the lookout for a snow job, impatient with evasion and imprecision…

The expression snow job means intentional deception or flattery by concealing something. What makes snow inspiring is its visual aspect that differentiates it from rain. Snow lays evenly on the ground, smoothing off everything underneath, making the surface homogeneous. Insincere words or behavior are shown to do the same effect on the moral landscape – laying a uniform white surface over uncomfortable realities and hiding them. The metaphor represents the ambiguous impression of snow as both pristine and potentially obscuring – beauty as a type of cover-up.

Motivating features: smoothness, concealment, regularity of the surface over rough ground, the moral landscape as territory.

REVERSE TRANSFER: OBJECT → PHYSICAL WORLD (DESCRIPTIVE)

Subsphere: *The phenomenon described through a material object*

Sphere. Snow as domestic covering

Regular direction of metaphorical transfer: *SNOW → DOMESTIC TEXTILE / COVERING*

…snow cap there on Mount Kilimanjaro…

…machinery crouched, bleeding rust into their blankets of snow…

…the carpet of snow…

…a patch of snow…

These examples from the corpus demonstrate the transfer of the meteorological substance snow into the area of fabric and clothing. The motivating features are its shape, its surface continuity, and its covering function. In all cases snow is described as a soft, stratified material that uniformly covers the ground, like a blanket, cap or carpet. The transfer is based on sensory experience, tactile and visual, of smoothness and white continuity. What is striking is the domestic register of the imagery: the language of furnishing the house (*cap, blanket, carpet, patch*) is appropriated wholesale to describe the landscape.

Motivating features: surface continuity, softness, covering function, domestic register, the landscape as a furnished interior.

Having completed the analysis of the semantic spheres of the lexeme snow, we now turn to the lexeme hail.

SOURCE SPHERE (PHYSICAL WORLD): HAIL *natural phenomenon, precipitation*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Verbal and emotional aggression*

Sphere. Hail as verbal attack

Regular direction of metaphorical transfer: *HAIL → VERBAL OR INFORMATIONAL ASSAULT*

…the Chicago rapper found himself in a hailstorm of criticism…

…I cringe in the hail of unsupported assumptions being flung at me…

…shouting above your hail of insults to be heard…

…a hail of criticism from assorted women's groups…

…he left in a hail of negative press stories…

In these figurative meanings hail means intensity and multiplicity of verbal or informational aggression. It is driven by features of repetition, speed, abundance, and impact. Words, accusations, emotions hit the recipient symbolically. Hail comes down fast from above. The phrase "hail of criticism", for instance, highlights a cultural obsession with speech as attack, which shows a wider tendency to think of rhetorical pressure in kinetic terms.

Motivating features: rapid repeated impact, hostility, density, the verbal blow as a small hard projectile, the recipient as an exposed target

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: *Category of large-scale destruction / catastrophe*

Sphere. Hailstorm as catastrophe

Regular direction of metaphorical transfer: *HAILSTORM → CATASTROPHIC FORCE*

…a hailstorm had destroyed much of the Bersaglias' harvest…

…the Beast Forever will reveal itself as a hailstorm of fire…

…a hailstorm threatening Dallas-Fort Worth airport creates both more risk and greater opportunity…

These are uses of hailstorm that emphasize suddenness, destructiveness, and overwhelming power. The metaphor is fueled by the volume and power of the objects that are falling, and their ability to do damage. An archetype of uncontrollable destructive energy is often found in a violent hailstorm. The expression is in the same register as rain-as-attack, but differs in two respects. The destructive event is named by a meteorological compound (hailstorm), rather than a verb (rained), and the scale of damage is usually larger – the harvest, the airport, the whole of the territory of Oz.

Motivating features: suddenness, large-scale destructiveness, apocalyptic resonance, the meteorological compound as image of catastrophic event.

It should be noted that our analysis revealed the following: a total of 11 regular metaphorical transfers were identified.

…As right as rain, white as snow – similes

…the ankle will be as right as rain in a week or two…

…Harvey's cats were as white as snow…

But the modern speaker takes the meaning "save for hard times" from the whole fixed expression, not from the live cross-domain projection from RAINY DAY to HARD TIME.

The construction as right as rain expresses good health, stability and correctness. The etymology is uncertain, some sources connecting it directly with "straight, even" rather than "correct", and the modern speaker deriving the sense "in good health, fine" from the set phrase as a whole. The construction as white as snow employs the visual analogy of the whiteness of snow to the whiteness of an object in relation to it.

The modern speaker retrieves the sense ‘save for hard times’ directly from the fixed expression as a unit, without projecting live from RAINY DAY to HARD TIME.

…If the people of Texas saved for a rainy day, why was your Governor complaining that the feds didn't give him enough money for the fires…

The idiom, save for a rainy day, comes from the older Protestant ethic of prudence and providence, which taught you to prepare for the storm, not wait for it. The image that supports this is the figurative link of bad weather and bad luck: the instability of nature as a metaphor for the instability of one’s finances. The figurative link remains visible, but the construction is fully lexicalized as a proverbial idiom and retrieved as a fixed expression. Here it is regarded as a fossilized phraseological unit, not as a productive cross-domain metaphor.

Archaic folk idioms of low productivity, where the figurative meaning transfer has been preserved in lexicalized form only and is not active in modern corpus use.

…It rains pitchforks; it rains darning-needles; it rains hammer-handles.

The idioms are derived from the images of agriculture and craft implements to depict the strength, force and density of the precipitation. The motivational features are simultaneity, repeatability, continuity of action, speed and auditory resemblance: the sound of heavy rain on the roof evokes the rhythmic clatter of tools at work. The etymology of pitchfork (Middle English pychforke, from pik “pick”) underscores the anthropocentric association – rain is reported to be doing labor, much as humans use their implements. The picture gives life to the natural process and the rain becomes an active working force creating music and rhythm. These expressions are very much out of trend in current English, replaced by it’s pouring, it’s bucketing down, it’s raining cats and dogs. They are included here, although not in the productive metaphorical inventory, for their cultural-historical value.

Snow White is a proper noun designating a specific fairy-tale character (Grimm 1812, Disney 1937), not a productive cross-domain metaphor. The contemporary speaker retrieves the cultural reference directly, without performing live figurative projection.

…thank God, cried Snow White, Dopey is still alive…

The epithet Snow White reflects the cultural archetype of idealized whiteness in the fairy-tale but is used as a proper name and a cultural reference in contemporary English rather than as an active metaphor. The underlying cultural symbolism (whiteness = purity = innocence) is important for the linguocultural analysis below, but the specific construction is a lexically realized onym, not a productive figure. It is closely related to the simile as white as snow (above), which is of the same archetypal value, but by way of a comparative rather than nominal structure.

Terminological-descriptive nominations of meteorological subtypes The source-domain comparison (with watermelon, corn, pellets) plays a descriptive role instead of being projected onto an abstract target domain.

…Watermelon snow – snow with a reddish tint caused by microscopic algae, found in high snowfields

...Corn snow – coarse, granular wet snow formed by cycles of melting and refreezing

...Snow pellets – white opaque ice particles, spherical or sometimes conical

These compounds use agricultural and organic lexemes as names of snow forms that present visual, tactile or behavioral properties. Watermelon snow is red in color, resembling fruit pulp, and is caused by the algae Chlamydomonas nivalis. Corn snow refers to the coarse granular nature of thawed and refrozen crystals. Snow pellets evokes an image of small rounded organic matter.

The features that motivate are granularity, shape, color and texture. In all three cases human sensory analogies (taste, color, touch) supply the figurative scaffolding for the perception of natural material, but the constructions are used as terminological labels, not as productive cross-domain metaphorical transfers.

...Perry (also parrey, parry, pirrie, pirry) – a sudden, heavy fall of rain; a squall in regional English.

The lexeme perry, which is the traditional name of pear cider, is an illustration of a transfer from the sphere of beverages to the sphere of natural phenomena. It is the motivating features of liquid form and flowing continuity. The drink spreads, like rain, and pours abundantly. The metaphor relies on perceptual similarity between the texture of a liquid in motion and the uniform downward motion of rain. With its lexical choice, it suggests rural, agricultural England, where the pear cider of the West Country was as familiar as the rain. Regional construction, included here for cultural completeness.

The direction of transfer is within one broader natural domain (bird migration → human seasonal migration), rather than from the meteorological domain to the human domain in the standard direction of the main analysis.

...I'm only down here as a snow bird…

Literally *snow-bird* refers to a migratory bird that travels to warmer regions during winter; in metaphorical use it describes a person who temporarily relocates depending on the season – most often a North American who spends the winter in Florida or Arizona. The transfer is motivated by migration, adaptation, change of environment, and cyclic movement. The transfer occurs from one zoological phenomenon (bird migration) to another human one (seasonal relocation) – that is, it does not project the meteorological domain onto human experience directly but rather uses the bird as an intermediate concept. It is accordingly considered here separately from the metaphorical transfers of the main analysis.

Rain functions verbally in expressions ranging from meteorological description (it rained all night) to vivid metaphorical extensions (*punches rained down, fire rained on the city, confetti rained on the players*). Snow gives rise to the participial idiom *snowed under*, which has become a near-formulaic expression of overwork in modern professional speech, and to the verbal noun *snow job*, denoting deception. Hail extends similarly into *a hail of criticism, a hail of insults, a hail of negative press*.

The rain of pitchforks, darning needles and hammer handles, the corn snow for grain, the watermelon snow for fruit, the snow-bird for the cadence of seasonal

migration – all these words keep alive the toil and domestic life of pre-industrial Britain in a way that empirical meteorology has long since left behind. You can feel the motion in each metaphor. The things that made it so obvious: throwing the hay, fixing the sock, cutting the grain, seeing the birds fly away at the end of the season. The language thus retains in a compact lexicalized form the everyday character of a rural and artisanal world which otherwise had completely disappeared from active participation.

For centuries weather was not just a topic of interest, but a critical aspect for life, navigation and business, and the language reflects that reliance. The widespread use of *rained off* and *rained out* in cricket and other outdoor sports maintains a similar dependence, but in a more familiar setting: where sailors used to judge weather conditions for survival, present-day English speakers think about it in terms of the cancelation of weekend matches.

The hailstorm (with biblical overtones), the moral evaluation of snow as a symbol of purity, the traditional Protestant principle of saving for future adversity– all these indicate the deep Christian influence on the English language in which natural phenomena and ethical considerations are so closely connected. With the same creativity that brought the heavenly wind in the section on wind, the rain is now created that stops the unfair harvest, and the snow that covers the unworthy soul.

English meteorological vocabulary is not a tight scientific system but an open, narratively rich field, constantly fed by rural folklore, fairy-tale tradition and regional accent. The fairy tale Snow White, the regional dialect perry, the scientific compound watermelon snow, and the zoonymic compound snow-bird all contribute to a lexicon in which weather is named through stories, sciences, and adjacent natural domains, and in which the line between literal description and figurative imagination is consistently porous.

The defined metaphorical phrases rain, snow and hail function in diverse scenarios as live beings on one side and as abstract phenomena on the other. They can rain, snow, hail on the recipient – verbs usually designated for animate subjects; and at the same time they function as metaphors for change, fortune, deception, criticism, melancholy and moral idealism.

This is no dualistic accident. The English linguistic picture of the world is two-tiered. On one hand, this is an ancient animistic tier, where rain falls in pitchforks, snow covers the desk, hail beats from above. In contrast, this is an abstract tier, where the same lexemes mean protest, criticism, prudence, moral idealism, emotional recovery. English retains both sides simultaneously and the cultural memory it carries ranges from the rural village and the medieval ship to the parliament, the courtroom and the current newspaper [205; 206].

2.3 “Atmospheric electrical and sound phenomena” in a metaphorical sense

Next we consider the lexemes that denote the unfavorable meteorological conditions – *thunder, lightning.*

Our analysis comprises atmospheric electrical and sound phenomena – *thunder and lightning [207]. These* phenomena are of particular interest because they are perceived through two different sensory channels – the visual (*lightning*) and the auditory (*thunder*) – which gives rise to distinct lines of metaphorical representation.

The noun *lightning* denotes the meteorological phenomenon that is perceived visually, while *thunder* is the auditory perception: we cannot see thunder.

In Roget's thesaurus, we found the following expressions and combinations with *lightning u thunder, thunderstorm, thundering, thunderhead, thunderhead, thunder at the pitch of one's breath, thunder at the top of one's voice, black as thunder, black as midnight, thunder bolt (thunderbolt), come like a thunder clap, thunderclap, like a thunderbolt, thunder forth, look black as thunder, thunders of the Vatican, thunder against* [148].

lightning, chain lightning, fork lightning, sheet lightning, summer lightning, quick as lightning, lightning express, flash of lightning [148].

Group of meteonyms examined in the present study designates atmospheric phenomena that combine intensity, suddenness, and ambivalent evaluation: thunder and lightning. The pair is unusual in that the two members appeal to different perceptual channels. *Lightning* is perceived visually – bright, momentary, and spatial – whereas *thunder* is auditory, prolonged, and intrusive. The figurative consequence is far-reaching: lightning typically motivates metaphors of speed, insight, and visual brilliance, while thunder motivates metaphors of voice, authority, and emotional outburst. The two thus complement each other within a single semantic field.

SOURCE SPHERE (PHYSICAL WORLD): THUNDER *natural phenomenon, atmospheric sound*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Social and collective life*

Sphere. Thunder as collective protest

Regular direction of metaphorical transfer: *THUNDER → SOCIAL PROTEST / COLLECTIVE VOICE*

…workers thundering against management – to resist, to scold, to condemn, to threaten.

…a thunder of applause…

This sphere represents the communal register of thunder. The voice of many into one sound. The characteristics that motivate are loudness, collective voice and opposition. It is the acoustic energy of nature that is utilized to picture the political energy of a crowd: the thunder of protest is, quite literally, the voice of the many coalesced into one resonating body. This similar kind of figurative transfer is behind the positive-evaluative use a thunder of applause, where collective approbation rather than collective resistance is expressed by the same image of united sonic mass.

Motivating features: loudness, collective voice, unified acoustic mass, the crowd as a single resonant body.

Subsphere: *Moral life and evaluation*

Sphere. Thunder as public condemnation

Regular direction of metaphorical transfer: *THUNDER → MORAL CONDEMNATION*

…Obama thundered in Missouri last week – to make a harsh condemnation or denunciatory speech.

…a thundering rebuke…

…a thunderbolt from a clear sky – a loud statement made with an element of surprise.

Sphere is a register of denunciatory speech, a severe public condemnation, spoken by a single speaker, of a specified target. Intensity of sound and intensity of judgment, the latter deriving from the former, are the motivating features: judgments, charges or revelations of such power that they generate major emotional or social effects. This is based on the earlier religious idea of thunder as the anger of heaven – something that can not be concealed or ignored, a supernatural voice that reaches everyone and touches them. A bolt from the blue carries the same imagery to the unanticipated pronouncement. The judgment that arrives without warning, the disclosure that reveals what was concealed.

Motivating features: intensity of sound, severity of judgement, unforeseen exposure, the verdict descending from above.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Voice, speech and authority of a person*

Sphere. Thunder as authoritative voice

Regular direction of metaphorical transfer: *THUNDER → HUMAN VOICE / AUTHORITY*

…Tom was silent. 'Speak!' thundered Legree, striking him furiously…

…roared Radney, pretending not to have heard the sailors' talk. 'Thunder away at it!'…

…a voice of thunder…

…to thunder from the pulpit, the thunders of the Vatican…

Thunder depicts a loud, forceful, angry voice and stands for power, command and emotional pressure. The motivating aspect is the intensity of sound and its emotional charge: meteorological violence is re-imagined as the voice of a dominant human agency. The metaphor is in keeping with the lengthy Indo-European tradition in which the thunder god – Thor, Perun, Zeus – was the ideal ruler whose voice rolled across the heavens. In English this celestial record has been redistributed among the people who hold power in pre-modern society; the preacher in the pulpit, the judge on the bench, the orator in parliament, the captain on the quarterdeck. To say that someone thunders is to put him, however temporarily, in the position of moral or institutional authority, the position from which the verdict, the sermon, or the command is delivered.

Motivating features: intensity of sound, descent from above, authority, command, the voice as celestial discharge.

Having completed the analysis of the semantic spheres of the lexeme thunder, we now turn to the lexeme lightning.

SOURCE SPHERE (PHYSICAL WORLD): LIGHTNING *natural phenomenon, atmospheric electrical discharge – the bolt and flash*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Intellectual and figurative life*

Sphere. Lightning as intellectual insight

Regular direction of metaphorical transfer: *LIGHTNING → MENTAL ILLUMINATION*

…the memory of lightning flaring between the cracks in the boards…

…all these ideas were passing through me like lightning…

…a flash of insight…

The metaphor is fueled by sudden vision, by the brief illumination of what had been dark before: the field that had been hidden a second earlier is for the span of the flash fully lit. The transfer turns the eureka moment, the intuition, the cerebral epiphany into celestial goings-on inside the mind. It is on this parallel exactly that the proverbial English a flash of understanding rests. The metaphor rests on an old folk physics of perception, where flash and strike are two stages of a single event, first sight, then impact, and the English lightning carries both stages into figurative life: a flash of insight is to be illuminated; a lightning strike is to be marked, for good or bad, by an external, irreversible event.

Motivating features: flash illumination, previously dark space becomes visible, mind as a landscape illuminated by the flash, two phases of seeing and being struck.

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: *Category of destructive force and danger*

Sphere. Lightning as destructive natural force

Regular direction of metaphorical transfer: *LIGHTNING → PHYSICAL DANGER / DESTRUCTION*

…the lightning had destroyed the tree…

…the most frightening thunder and lightning that I have ever seen in my life…

Lightning is a destructive and fearful agent of nature here; it signifies threat and danger. Its moving features include violence, strength, fear and suddenness. The image is similar to the storm metaphors mentioned previously in this chapter, but is more specific and more vertical – a single bolt rather than a steady wind. The transmission depends on the vertical course of the stroke from above and on the irreversibility of its effect. Lightning selects its victim unannounced, and what it strikes does not recover.

Motivating features: violence, power, fear, suddenness, vertical trajectory, irreversibility of impact.

Subsphere: *Manner and degree (speed, instantaneity)*

Sphere. Lightning as speed

Regular direction of metaphorical transfer: *LIGHTNING → EXTREME SPEED*

…as quick as lightning, Toby climbed up and pulled Oliver after him…

…lightning-fast reaction…

…like greased lightning…

Lightning indicates quickness of activity and immediate reply. The motivating features include speed, instantaneity, shortness, and disappearance. These are the rapid execution of physical movement and the immediate flash of perceptual response. The most lexicalized forms of the transfer are the English compound lightning-fast and the comparative pattern (as) rapid as lightning. The phrase like greased lightning adds to the image by including the friction-reducing grease – the lightning is not only rapid in itself, but it is sped up by the lack of resistance.

Motivating features: velocity, instantaneity, brevity, disappearance, the absence of resistance.

Subsphere: *Category of the unforeseen event*

Sphere. Lightning as unexpected event from above

Regular direction of metaphorical transfer: *LIGHTNING → SUDDEN UNFORESEEN EVENT*

…a bolt from the blue – a sudden unexpected event.

…lightning struck twice – an unlikely coincidence.

Motivating aspects unpredictable, vertical impact, apparently clean sky from whence the event arrives, statistical improbability. The motivating features include unpredictability, verticality of impact and irreversibility. A bolt from the blue preserves the meteorological paradox of lightning that strikes from a seemingly clean sky (frequently used of disastrous news); lightning struck again names the rare and statistically implausible repetition of the same unplanned event.

There is a lengthy cultural history behind this distribution. Thunder figured as the voice of heaven, the symbol of authority, while lightning figured as a fleeting illumination – physical, then intellectual. The corpus preserves the distinction into modern English with little blurring.

The analysis identified 7 regular metaphorical transfers.

…man the capstan! Blood and thunder!…

…go to thunder, gal!…

…by thunder, men, we must do something…

…it's my last word, by thunder! said Silver…

…I was never afraid of Flint in his life and, by thunder, I'll face him dead…

…what in thunder do you mean by that?…

In these examples *thunder* functions as a substitute oath or circumlocution for God or Heaven. The phrase *by thunder!* is a near-equivalent of *by God!*, used to invoke supreme authority while skirting direct mention of the divine name – a strategy of euphemistic substitution attested across many religious cultures (compare *by Jove!, by gum!, gosh, golly*). The pattern preserves the long Indo-European tradition in which the thunder god – Thor, Perun, Zeus – is the archetypal sovereign, and in which to swear by thunder is to invoke the highest authority while observing the taboo against direct invocation. To swear *by thunder* is to acknowledge the celestial authority while observing the taboo of direct naming – a small theological gesture preserved in everyday seafarer's speech, and part of a broader English habit of finding substitute formulae (*by Jove, by gum, by golly, by gosh*) that name the sacred through one of its visible attributes. The *blood and*

thunder! of the seafarer's exclamation belongs to the same imagination as the bishop's pulpit, but at the demotic end. Strictly speaking, this is not an active metaphorical transfer but a fossilized speech-act formula.

Contemporary speakers retrieve the meaning "to appropriate someone else's idea" directly from the fixed expression, without accessing the source domain THUNDER.

...to steal someone's thunder – to win praise for oneself by pre-empting someone else's attempt to impress.

The idiom originates with the playwright John Dennis (1657-1734), who in 1709 invented a new sound-effect device for theatrical thunder. Three years later, watching another company use the same device in a production of Macbeth, he is recorded as exclaiming: "Damn them! They will not let my play run, but they steal my thunder!". The phrase entered English idiomatic usage and remains current, applied to politicians, performers, and academics – almost no speaker today is aware of the irritated playwright in whose theatre it was born. The expression has substantial cultural-historical significance but no live metaphorical transfer in contemporary use: speakers retrieve the meaning "appropriate someone else's idea" without performing a figurative projection from THUNDER.

The case is unusually well documented and gives the idiom an almost biographical depth – a natural phenomenon was borrowed by the theatre, and the theatre returned it to the language as a fossilized expression for the appropriation of any original idea. The idiom is a small museum of English literary and social history, and its survival illustrates one of the recognisable habits of the English meteorological lexicon: its capacity to carry forward, in compact lexicalized form, the sediment of theatrical anecdote, religious sermon, and forensic rhetoric, long after the cultural occasions that produced them have receded from active memory.

...black as a thundercloud / black as thunder – gloomy, irritable mood.

The construction draws on the visual similarity between the blackness of thunderclouds before discharge and the dark, tense, irritable mood of a person. The motivating features are visual analogy and the projection of meteorological darkness onto facial expression.

Terminological nominations of meteorological subtypes; the source-domain comparison (with pearls, ribbons, sheets) functions descriptively rather than projecting onto an abstract target domain.

...Ball lightning – a rare spherical form of lightning.

...Pearl-necklace lightning / beaded lightning – discharge with brightness variations resembling pearls on a string.

...Ribbon lightning – a horizontally displaced cloud-to-ground discharge.

...Sheet lightning – a diffuse cloud discharge that illuminates the entire cloud.

...Rocket lightning – a slow form of lightning whose stroke is perceptible to the eye.

A whole sub-system of meteorological terminology renames forms of lightning through artefactual imagery. *Pearl-necklace lightning* (also called *chain lightning* or *beaded lightning*) names a rare form in which variations of brightness along the

discharge path produce a momentary appearance of pearls on a string. *Beaded lightning* describes a sequence of luminous spherical formations resembling pearls. *Ribbon lightning* is a cloud-to-ground discharge spread horizontally into a ribbon shape when a strong wind blows at a right angle to the observer's line of sight. *Sheet lightning* is a diffuse cloud discharge in which the channel is invisible and the entire cloud is illuminated.

The expression *thunder colour* refers to a "lightning-fast colour", a bright fabric with striking hues; the metaphor here is built on the features standing out, attracting attention, and shining vividly.

The motivating features across the entire group include brightness, linearity, shape resemblance, and intense visual effect – but the constructions function as terminological-descriptive labels rather than as productive cross-domain metaphorical transfers.

The direction of transfer is reversed (body part → meteorological phenomenon), and the constructions function as terminological labels for specific atmospheric structures rather than as productive metaphors in the standard PHYSICAL WORLD → HUMAN direction of the main analysis.

...*Thunderhead* – the upper, dense, anvil-shaped front of a thunderstorm.

...*Rainhead* – the upper precipitation layer of the storm system.

...*Hurly-burly* – a regional English name for a thunderstorm.

The compounds *thunderhead* and *rainhead* project the structure of the human head onto natural atmospheric formations. The *thunderhead* resembles a massive head crowned by clouds and marks the leading edge or source of the storm; *rainhead* identifies the upper part of the storm system where precipitation originates.

Hurly-burly is a regional English name for a violent disturbance, including a thunderstorm. The motivating features are form, shape, upper position, and source of action. The transfer continues a long anthropomorphic tendency in which the cardinal parts of weather are imagined as bodily organs of a vast natural being. As in the case of *eye of the wind* and *teeth of the gale* (treated in Section 2.1), these compounds work in the reverse direction (BODY → WEATHER) and are accordingly considered here separately from the metaphorical transfers of the main analysis.

English *thunder* occupies the territory of voice and authority. *To thunder against* an opponent, *to thunder from the pulpit*, *to thunder away at the enemy*, *to thunder at the top of one's voice*, *to thunder in Missouri*, *the thunders of the Vatican*, *a thundering rebuke*, *a voice of thunder* – the metaphorical paradigm of thunder gathers around speech that descends from above and demands compliance, denunciation, command, or public protest. Behind this distribution stands a recognisable pre-modern world: the preacher in his pulpit, the judge on the bench, the orator in parliament, the captain on the quarterdeck. Each of them speaks with a voice that the cultural imagination has long modelled on the voice of the storm.

To thunder is to grant someone, however for a moment, the status of moral or institutional authority – the status from which the verdict, the sermon, or the

command is delivered. English keeps within its common lexicon a lengthy Christian and forensic heritage, in which heaven itself was thought to speak through thunder, and in which human authority modeled its rhetoric on that celestial example.

Lightning, however, is in the domain of speed and revelation. Lightning-fast, quick as lightning, a flash of insight, a bolt from the blue, lightning struck twice, like greased lightning The metaphorical paradigm of lightning collects around suddenness, illumination and the unforeseen. The participial construction lightning-fast and the comparative pattern as swift as lightning transfer the speed of the natural flash to physical motion and to mind. The picture of motivation is the instant when the unseen becomes seen--the field that was dark a second ago now, for the duration of the flash, fully illuminated. From this very physical sensation English has taken a whole vocabulary of figurative occurrences: the sudden idea, the unforeseen calamity, the unexpected meeting, the great performance.

To have a *flash of insight* is to be illuminated; to be *struck by lightning* is to be marked out, for good or ill, by an external and irreversible event. The same lexeme thus serves the figurative history of discovery and the personal history of catastrophe, and English speakers move between the two senses without apparent difficulty [202; 203].

2.4 "Temperature phenomena" in a metaphorical sense

Of all weather, temperature is the one we feel rather than observe, straight on the skin, and that may be why it slips into metaphor so readily. Cold leaves the weather behind and goes to work on people: on how they treat one another, how they keep their nerve, what they flinch from.

English leans on this hard. *Cold*, along with *cool, chill and frost*, stretches from indifference to cruelty to ordinary fear. Roget's Thesaurus records the following metaphorical senses of cold (N/Adj):

The semantic structure of the English N/Adj "cold" has the following metaphorical meanings derived from Roget's Thesaurus:

...give the cold shoulder, blow hot and cold, throw cold water on, in cold blood, cold sore, cold water cure, cold fit, cold blood, cold heart, coldness, coolness; frigidity, blooded, cold hearted, cold as charity, make the blood run cold, cold comfort; cold sweat, cold feet, cool as a cucumber cool one`s heels, cool-headed cool down, grow cool, cool as a custard, look cool upon, chill to the marrow...frost smoke, frost work…[148].

SOURCE SPHERE (PHYSICAL WORLD): COLD *natural phenomenon, low temperature – cold, cool, chill, frost, frigidity*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Social life and public reception*

Sphere. Cold as emotional rejection

Regular direction of metaphorical transfer: *COLD → SOCIAL REJECTION / UNFRIENDLY RECEPTION*

…a cold reception…

…cool of a greeting… cool of a reception…

…a frosty welcome…

…the impeccably polite coldness between Miranda and Adam…

In their figurative meanings the lexemes *chilly, cool, chill, frost, frigidity* express the absence of warmth, cordiality and sympathy in social intercourse. A frigid reception, a cool greeting, a frosty welcome, a chill in the room – these are all descriptions of the social-affective temperature of a meeting as the opposite of the warmth that would be the hallmark of true welcome. The motivating mechanism is the absence of social heat: the warmth of the fire, the warm part of the meal and the heated chamber were the signs of welcome in the family environment from which English thermal terminology is derived. A greeting or reception is said to be frigid when it does not possess this particular kind of household warmth. Here the four lexemes serve as a graded scale: cool as the minor unfriendliness; cold as the unmistakable withholding; chill as the affective shock of unwelcome; frost as the excessive severity.

Motivating features: absence of social heat, withholding of welcome, the graded scale from slight to extreme rejection.

Sphere. Frost as social or theatrical failure

Regular direction of metaphorical transfer: *FROST → FAILURE OF A SOCIAL EVENT*

…the entertainment was a frost…

The phrase "English frost" is a cultural expression for a public event that fails, whether it be a play that is badly received, a party that never catches fire, or entertainment that leaves its audience cold. This is at the heart of the affective temperature of public response. A bad presentation leaves the audience cold and bored, a good one produces collective warmth with applause, laughing and animation. All this social-thermal analysis is, in relation to the entertainment, pared down to one word: a frost. It remains in existence as a minor archaic literary register, most strongly maintained in older British English (early 20th century theatrical reviews). The adjective lukewarm and the verb to fall flat are in adjacent registers and share the same figurative frame.

Motivating features: the audience as thermal mass; the register of theater and journalism; the failed event as an event that does not engender social warmth.

Subsphere: *Emotional life and self-control*

Sphere. Cool as emotional self-control

Regular direction of metaphorical transfer: *COOL / COLD → SELF-POSSESSION AND COMPOSURE*

…officer of extreme gallantry, with the qualities of coolness and high powers of leadership…

…Patel showed mature coolness as he slipped the ball beneath the prostrate keeper…

The quality that motivates is the lack of emotional disturbance: where the person in a panic is hot and agitated, the person who is composed is cool and calm. Here coolness is given a good mark – the quality of the cop who keeps his head in peril, the sportsman who makes the decisive play without nervousness, the negotiator

who shows no reaction to provocation. The change is determined by the direction of evaluation rather than by the underlying metaphorical transfer: in both situations the absence of thermal disturbance corresponds to the absence of emotional distress.

Motivating features: absence of emotional disturbance, steadiness under pressure, the inversion of evaluation from negative to positive.

Subsphere: *Moral life and character*

Sphere. Cold as harsh moral character

Regular direction of metaphorical transfer: *COLD → CRUELTY / RUTHLESSNESS*

…now something more than a quelling look appeared on Lord Woodleigh's fine-bred features. Cold anger…

…the martyrdom of his father in 203 left him with a cold antipathy…

…an enigmatic amalgam of cold ruthlessness and surprising kindness…

…the cold laughter of market traders…

…a streak of cold savagery…

The motivating mechanism is the absence of warmth in its full moral sense: the person whose anger is *cold* has felt no human warmth toward the object of that anger; the person whose ruthlessness is cold has performed acts of harm without the warming influence of compassion. The English moral imagination thus treats compassion itself as a thermal phenomenon: kindness warms, cruelty cools. The construction admits gradation through the choice of lexeme: cold anger, cold antipathy, cold ruthlessness, cold savagery move along a scale of intensifying moral judgement, while the icy coldness of shock and the coldness of death mark the extreme poles of the same scale [204].

Motivating features: absence of compassion, the moral imagination as a thermal field, gradation of cruelty through choice of lexeme.

Subsphere: Intellectual and creative life

Sphere. Frost as creative paradox

Regular direction of metaphorical transfer: *FROST → CREATIVE SUFFERING*

…there is little great poetry that has not come from the frost of sorrow…

…there was a light frost of anger in Jackson's tone…

The construction frost of sorrow names the figurative paradox at the heart of the English thermal imagination: that creative power can arise from the cold of suffering, that the freezing of feeling can paradoxically produce the warmest art. The metaphor rests on the representation of frost as the most extreme form of thermal withdrawal – the point at which feeling becomes so cold that it transforms into something other than itself, namely creative expression. The related construction light frost of anger captures the measured, restrained, but unmistakable irritation that has settled rather than flared up.

Motivating features: extreme thermal withdrawal, transformative power of suffering, the paradoxical inversion in which cold produces warmth, the literary register.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Somatic and bodily states*

Sphere. Cold as physical sensation and bodily state

Regular direction of metaphorical transfer: *COLD / CHILL → BODILY DISCOMFORT*

…the poor swollen hands of the cold woman were already cramping with the cold…

…he was shivering with cold…

…this place isn't beautiful, it's miserable bloody cold, bloody…

…Craig had caught a chill and was shivering a little…

…to walk in the house chilled to the bone…

In the corpus, the lexeme cold designates the prevalence of low temperature on a scale from below-zero values to a temperature significantly lower than the human body. In this physical-bodily register, the lexeme is associated with unpleasant sensations and shivering, and the metaphorical scale extends from descriptive cold to evaluative bloody cold, miserable cold. The lexeme chill designates both the unpleasant piercing cold that causes shivering and, by extension, the illness produced by cooling the body (to catch a chill). The verbal constructions chilled to the bone and chilled to the marrow continue the same line, representing the penetration of cold into the deep interior of the body as a register of maximal physical discomfort. The motivating features are loss of warmth, reduced temperature, the physiological sensation of shivering, and the metaphorical extension to illness.

Motivating features: loss of warmth, reduced temperature, the physiological sensation of shivering, the body as a vessel penetrated by cold.

Sphere. Cool as pleasant freshness

Regular direction of metaphorical transfer: *COOL → PLEASANT BODILY REFRESHMENT*

…it was pleasant to feel the cold of the dew on the bare feet…

…to enjoy the cool of the day, Skeleton was sitting on the verandah…

…the coldness of the fresh water was grateful after the heavy stickiness of the salt Pacific…

The domain includes the positive pole of the thermal scale. It includes the pleasing freshness of the morning dew, the chill of the day, the refreshing of cold water after heat. This is contrasted to the register where cold is the source of misery. The lexeme cool with a synonym coolness means lower temperature than cold and means pleasant invigorating freshness. The motivating elements include the reduction of body temperature following heat, the restoration of comfort and the sensory pleasure of touch with cool surfaces. The transfer metaphor reconceptualizes the evaluation of cold as misery, with cold becoming agony and cool becoming relief, using the same physical scale at both extremes based on the past thermal condition of the body.

Motivating features: lowering of body temperature, sensory pleasure, the contrast with prior heat, refreshment after exertion.

Sphere. Cold as somatic shock and death

Regular direction of metaphorical transfer: *COLD / CHILL → BODILY SHOCK / DEATH*

…Vivial felt an uneasy chill of fear…

…coldness settled in her stomach, hearing Miss Jarman bark out…

…of that icy coldness she was very aware, but not as relief, rather as pain…

…he clutched at the hand in panic, and felt the coldness of death…

The explanation is physiological. Fear, shock causes vasoconstriction, blood is drained from the periphery and the body produces a real sensation of cold from the inside. This folk-physiological observation is preserved in the English language in such constructs as chill of anxiety, coldness settled in her stomach, ice coldness of shock, and the coldness of death (the final and irreversible loss of physical heat). The motivating features include the physiological correlate of shock, the bodily response to dread, the ultimate end of life symbolized by the absence of warmth.

Motivating features: physiological vasoconstriction, somatic shock, the body as a thermal vessel, the final cessation of heat as death.

Total regular metaphorical transfers (main analysis): 8. Total spheres of target representation: 8.

The contemporary speaker no longer accesses the underlying transfer (cold cut of mutton → refusal of hospitality) as a live cross-domain projection; the meaning "show of unfriendliness" is retrieved directly from the fixed expression.

…been given the cold shoulder…

…to turn somebody a cold shoulder…

To "give someone the cold shoulder" is to purposely be unpleasant or rejecting of them. The phrase was coined from an old English habit of giving an undesirable guest a chilly shoulder of mutton (the cheapest part of meat), as a metaphor. Finally, the gesture was used in the figurative sense of a frigid greeting or disdain. The term is a language relic of a pre-industrial rural family, where the temperature of food constituted a social signal in itself. The kitchen, the fireplace, the unheated room are the cultural context to grasp the English thermal metaphor.

To give someone the *cold shoulder*, in the most literally historical sense, is to deny them the warmth of the fire, the warm side of the table. The idiom has outlived the world that inspired it, and is still quietly working semantic magic in modern English. The speaker who gives someone the frigid shoulder today doesn't know the medieval kitchen behind the phrase, but that kitchen is still doing the meaning. Therefore, it is included here as a fossilized idiom with a high value of cultural-historical, but a low value of constructive metaphorical transfer.

…she told me not to go cold turkey, but I thought, how bad could it possibly be?…

The expression *cold turkey* describes a sudden complete withdrawal from an addictive habit, characterized by physical discomfort and emotional shock. The etymology is contested: candidate explanations include the goose-bumps that resemble the skin of a plucked cold turkey, the bluntness of speech (*to talk turkey*), and the cold body state during withdrawal. In synchronic usage, the idiom is fully lexicalized, and its metaphorical motivation is not actively reconstructed by the

speaker; it functions as a fixed phraseological unit rather than as a productive metaphorical transfer.

…Dewhurst is a cold fish, with no warmth for people he doesn't know…

…the air as cold as charity…

…cool as a cucumber – completely composed under pressure.

The simile *cold as a fish* (and the related substantive *cold fish*) draws on the biological reality of cold-bloodedness in marine animals: fish do not produce body heat, and contact with a fish gives the human hand the sensation of coldness. This feature is transferred to the cold-blooded, emotionally detached person who shows no human warmth. *Cold as charity* preserves a Christian-moral irony in which the warmth ostensibly characteristic of charity is in practice often absent – charity that gives the minimum, coldly. *Cool as a cucumber* draws on the natural coolness of the cucumber's interior (preserved by its water content and thick skin) and projects this onto the composed person who remains cool under pressure.

…a cold-blooded killer…

…cold-blooded murder, committed without emotion or remorse…

The phrase "cold-blooded" originated as a biological term for ectotherms (animals that rely on external heat) as opposed to endotherms (animals that generate their own heat). The figurative extension – designating the person who acts without the warmth of compassion – was already lexicalized in early modern English, and the contemporary speaker recalls both senses as established, ordinary polysemy.

The direction of transmission is inverted (body part → meteorological phenomena) and the constructions operate as terminological-medical labels, and not as producing metaphors in the standard PHYSICAL WORLD → HUMAN direction of the primary analysis.

…Frost bites – frost has teeth.

…Frostbite – a medical condition in which cold weather damages fingers or toes.

The phrase *frost bites* preserves the ancient anthropomorphic idea of a being with teeth; the medical term *frostbite* is the current, completely lexicalized residue of the same image. The construction projects pieces of the human body (teeth) onto an atmospheric phenomenon and creates a permanent terminological compound (frostbite) which in synchronic use acts as a medical term not as a live metaphoric comparison.

Thermal lexemes are very productive as verbs and quasi-verbal forms in English. The paradigm encompasses physical action, mental restraint, social discouragement, and even the deliberate soothing of others – *to chill, to cool, to grow cool, to put cold water on, to chill to the bone, to chill to the marrow, to make the blood run cold, to cool one's heels, to blow hot and cold*. The Englishman who splashes cold water on a thought, who shudders to his marrow at a sound in the dark, who cools his heels in an antechamber, all work on the same grammatical and figurative frame: a thermal sensation turned to a deed. Weather in this sense is not something that is being done to the speaker; it is something that the speaker does and suffers.

In the social and emotional register of withholding, the note of cold predominates: cold shoulder, cold anger, cold antipathy, cold savageness. Cool is cool, and is generally collected and self-possessed: cool as a cucumber, coolness of maturity, coolness of a commanding officer. Chill is both physical and emotional shock. Chills of fear, chilled to the bone, chilled and silly. Frost is the extreme pole severity, sharpness, failure of an entertainment, the creative paradox of the frost of sorrow. The distribution of the four lexemes in the BNC and COCA shows that English speakers do not use these four lexemes interchangeably but use them as a graduated scale of distance from the slight cool of a greeting to the absolute coldness of death. The corpus reveals that English speakers have inherited a vocabulary where moral and emotional life is measured in degrees, and the choice between cool and cold, chill and frost, is never indifferent.

Cold comfort, cold as charity, cold-hearted are part of the Christian moral vocabulary of warmth as love and cold as its withholding, in which the temperature of charity is the temperature of the soul that exercises it. These idioms have outlived the world that spawned them, and continue to undertake modest semantic work in contemporary English. The same imagination that gave us the wind of God in the chapter on wind, gives us here the moral vocabulary in which warmth and cold are not simple physical sensations but moral characteristics -- the temperature of the soul quantifiable in its acts. The English language worldview carries on in the ordinary lexicalized form a sediment of a domestic and religious history that the speakers themselves have forgotten.

In the English thermal metaphor, the body is a location. *Frost has teeth*, *cold settles in the stomach*, *a chill runs through a person*, *the blood runs cold* – not only creative flourishes, but a pattern that recurs throughout the corpus. They discuss a perspective in which the body experiences emotion initially, and the mind only later assigns a label to it. Fear is the chill that precedes the concept of fear. Cruelty is the sincerity of the deed before it is classified as moral. The English thermal metaphor is more closely related to folk physiology than to abstract psychology. The four lexemes are a vocabulary of embodied emotion, which English speakers have historically attributed to the skin, bones, and blood, rather than to an inner capacity that is distinct from them. This somatic anchoring is the lowest level of the English thermal vocabulary, providing a connection between the abstract scale of cool/cold/chill/frost and the physiological sensations that an individual experiences.

The systematic dual evaluation of the English thermal vocabulary is a culturally distinctive characteristic. Cool can refer to admirable composure or hostile withholding, while cold can refer to moral cruelty or the somatic shock of dread. Frost can refer to the creative paradox of suffering or the failure of an entertainment. The English moral imagination therefore views temperature as evaluatively flexible: the absence of warmth can be regarded as either culpable cruelty or admirable steadiness, contingent upon the surrounding context. In Kazakh *суық*, the dual evaluation (severity and self-possession) is paralleled by this evaluative flexibility, which confirms a general characteristic of meteorological metaphors across languages: thermal phenomena are not evaluatively determined in

themselves, and the same figurative machinery can serve as either admiration or condemnation depending on the human situation in which it is invoked [208].

2.5 Formation of solid "ice crystals" in a metaphorical sense

As it concerned a thematic subgroup of words that characterize the formation of ice crystals in metaphorical meaning, we turned to Roget's thesaurus and found the following word combinations

ice box, keep on ice, ice bound, break the ice, ice wool, smooth as ice [148].

SOURCE SPHERE (PHYSICAL WORLD): ICE *natural phenomenon, frozen water (ice, icy)*

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Emotional and affective life*

Sphere. Icy as unresponsive love

Regular direction of metaphorical transfer: *ICY → UNRESPONSIVE LOVE*

…Smoke gets in your eyes, your green eyes, my icy love…

The adjective *icy* is here used as a metaphor for emotional coldness, detachment and inaccessibility. The epithet does not refer to physical temperature but to the affective distance between speaker and addressee. Love is an object, unresponsive, frozen, closed off; a feeling that exists in form but not in warmth. The transfer depends on the absence of warmth in the full affective sense: loving warmth gives, *icy love* gives not back.

Motivating features: absence of warmth, detachment, stillness, emotional numbness, the lover as frozen surface.

Sphere. Icy as psychological isolation

Regular direction of metaphorical transfer: *ICY → PSYCHOLOGICAL IMPERMEABILITY*

…the intractability of the glass, of its icy self-containment…

In this structure, frosty self-containment expresses existential and psychological impermeability in addition to actual coldness. Self-containment is a word that describes something that is shut off from outside influences and closed in on itself; the adjective frosty emphasizes this, implying emotional sterility, rigidity, and aloofness. A person whose inner world has frozen over and no longer allows anyone in or out is described by the metaphor as having silently walled themselves off. This sphere refers to the inward-directed freezing of the ego, as opposed to the register in which cold names the failure of love aimed at another.

Motivating features: rigidity, impermeability, emotional sterility, inaccessibility, the self as sealed vessel.

Sphere. Ice in the heart – internalized emotional detachment

Regular direction of metaphorical transfer: *ICE → INTERNALizED EMOTIONAL DETACHMENT*

…she had accused him of having a shard of ice in his heart…

…the ice in her body seemed to affect her, for it came out as a croak…

Two metaphors of inner coldness sit side by side, and the second one quietly turns into a mirror of the first. The image of a shard of ice in his heart presents

emotional detachment as something sharp and lodged inside – a coldness that both wounds the person carrying it and keeps everyone else out. A few lines later, when the text speaks of the ice in her body, the metaphor changes hands: what once was an accusation she threw at him has now settled inside her. She is no longer pointing at coldness; she is feeling it. The transfer proceeds from the physical properties of ice (sharpness, hardness, lodged immobility) onto the inner emotional state. Distinct from the quiet sealing of icy self-containment, this sphere captures the sharp lodged coldness as a specifically painful internalization.

Motivating features: sharpness, lodged immobility, internalization of coldness, the heart as the site of frozen pain.

Sphere. Melting ice as emotional reconciliation

Regular direction of metaphorical transfer: *MELTING ICE → EMOTIONAL RECONCILIATION*

…Will nothing melt the ice – the cosmic ice of marriage?…

Melts the ice the cosmic ice of marriage takes the image way beyond an ordinary argument They are not merely two people who have drifted apart. They have a big freeze settled over their lives together. Marriage itself becomes a vast expanse of ice; the question is whether anything can be heated sufficiently to melt it. The ground of the transfer (tertium comparationis) is the physical truth that ice melts under warmth. While the previous registers depicted the frozen state of feeling, this sphere indicates the possibility of its reversal. The verb to melt is a figurative word for slow and gradual restoration of emotional warmth and renewal of a connection.

Motivating features: melting as warmth, the slow return of frozen distance, rebirth of movement, the warm repairing the frozen.

Sphere. Rejection in action – cold contempt

Regular direction of metaphorical transfer: *ICY → ACTIVE EMOTIONAL REJECTION*

…She accepted the kiss with icy disdain, and his misery was complete…

The icy scorn at the instant when warmth is altogether departed. The coldness isn't in the air, it's in the connection. She takes the kiss, but simply at face value, no reciprocation. And that unspent warmth, that intentional void behind the gesture, is precisely what makes the moment so terrible for the addressee. The motivating mechanism is the conscious refusal of the expected affective return. The gesture is there, but not the warmth.

Motivating features: conscious withholding, willful refusal of emotive return, the gesture without warmth, humiliation as frigid.

Sphere. Ice-cold eyes repressed emotion

Regular direction of metaphorical transfer: *ICY → EMOTIONAL CONTROL / PSYCHOLOGICAL DEFENCE*

…For a second the icy eyes were distant, remembering something pleasurable…

The construction chilly eyes converts the look into something closed, carefully kept under control. Most often eyes are thought of as the location where people meet, a window, a channel, a way in. Here they do the opposite: they keep the world at

arm's length, and reveal nothing. Even if the character sinks inside for a moment, into some happy memory, the warmth of that memory is private, felt but not shared. The cold doesn't lessen. Yet the eyes are a sealed surface, and the moment of inner pleasure makes that sealing more obvious.

Motivating features: lack of warmth, emotional restraint, opacity, the eyes as sealed surface rather than meeting point.

Subsphere: *Intellectual, figurative and aesthetic life*

Sphere. Icy stars as aesthetic distance

Regular direction of metaphorical transfer: *ICY → DISTANT AESTHETIC PERFECTION*

…the sky was clear and glittering with icy stars…

The epithet *icy stars* does two things at once. It paints the visual picture of a winter night – clear, sharp, brilliant – and at the same time it cools the whole scene down emotionally. The stars shine, but theirs is a beauty that keeps its distance: still, unreachable, almost too perfect to feel close to. Icy here is not just about temperature; it is about that particular kind of splendour that leaves the human observer outside, looking up.

Motivating features: brilliance, immobility, sublime distance, the observer left outside, beauty without warmth.

Sphere. Icy thoughts as figurative shock

Regular direction of metaphorical transfer: *ICY → MENTAL SHOCK / NUMBNESS*

…The thoughts dropped small and icy, into the very centre of him, paralysing all his senses…

Here ideas are virtually physical objects; little hard frozen items that descend directly into the core of the human. Icy in this context is not just unpleasant. It is laden with shock, with fear, the kind of moment when something inside just becomes cold and motionless. The concept does not linger on the surface of the mind. It falls into the heart of him -- it goes right in, and when it lands, the senses are silent. The motivation is the representation of mind as a small frozen object which invades and paralyzes. The transfer is based on the bodily sensation of being struck by cold.

Motivating features: numbness, paralysis, inner self penetration, sensory warmth loss, thought as a chilly projectile.

Subsphere: *Social life and interpersonal relations*

Sphere. Breaking the ice as social initiation

Regular direction of metaphorical transfer: *BREAKING ICE → INITIATION OF SOCIAL CONTACT*

…To break the ice – to overcome the initial awkwardness of a social encounter.

…An icebreaker – a remark or activity intended to relieve tension between strangers.

The construction to break the *ice* is one of the most productive English social metaphors, naming the act of initiating contact between strangers by overcoming the awkward silence that precedes acquaintance. The motivating image is the frozen lake or river whose surface must be cracked before the water beneath can flow: the first

encounter is a frozen lake; the initial conversational gesture is the breaking blow. The derived noun icebreaker has fully lexicalized into the vocabulary of corporate training, professional networking, and educational practice.

Motivating features: the frozen surface as initial social barrier, the cracking blow as the first conversational gesture, the flow beneath the ice as the warm exchange to follow.

Sphere. Icy welcome as social rejection

Regular direction of metaphorical transfer: *ICY → HOSTILE SOCIAL RECEPTION*

…The touring Soviet Union team were given a frosty welcome at Aspatria last night…

An icy reception, an icy greeting, an icy stare from across the room.

The metaphor turns human connection into an analog of climate, with *ice* representing exclusion and emotional resistance at the social-collective level. Note that frosty welcome belongs technically to the frost lexicon and is treated in the chapter on cold; the corresponding icy welcome / icy reception are productive in the ice register.

Motivating features: collective withholding of warmth, social exclusion at the group level, environmental coldness as figure of interpersonal coldness.

Sphere. Icy as professional restraint

Regular direction of metaphorical transfer: *ICY → PROFESSIONAL EMOTIONAL CONTROL*

…his icy publicist, Dana Friendman…

Here frosty refers not to temperature but to a person's professional demeanor and method of communication. This adjective describes the publicist as uninviting, firmly controlled, reserving her warmth. The metaphor underscores a little paradox: a person whose career is communication, but whose way of being closes down emotional access. Publicists operate in a field that is predicated on mediation and outward connection.

Motivating features: restraint, aloofness, professional control, emotional distance as vocational tool, the contradiction of professional mediation without tenderness.

Sphere. The majestic power of icy authority

Regular direction of metaphorical transfer: *ICY → MAJESTIC POWER / MYTHIC ALOOFNESS*

…icy power of a Nordic goddess as Club Adonis…

Here, frigid strength is coldness on a grand scale, and the figure is less emotionally numb than formidably impenetrable. The metaphor is based on the cultural idea of the Nordic Goddess – majestic, remote, and beyond the reach of ordinary humans. Ice is a sign of supremacy, of legendary coolness: it is frosty because it is distant, in control, and scary, not because it is warm or kind. the picture does not signify weakness or detachment but a magnificent, sovereign otherness – coolness as a form of grandeur, elevation and unchallengeable authority. the

metaphor belongs to the long european fairy-tale archetype of the Snow Queen / ice-maiden mentioned in the linguocultural block below.

Motivational features: distance, elevation, purity, restraint, sublimity, royal untouchability, Snow Queen archetype.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Somatic and bodily states*

Sphere. Blood to ice as somatic fear

Regular direction of metaphorical transfer: *ICE → BODILY SHOCK OF FEAR*

…The sound turned my blood to ice…

…I only saw him for a moment but my blood seemed to freeze…

The construction blood to ice (and the associated blood looked to freeze) gets that split second of absolute fright when the body seems to shut up on its own. The ice here is a kind of interior stoppage – the warmth that normally flows through a person is suddenly stilled, as if the shock had penetrated to the bloodstream. It's not real cold, it's only the feeling of it. For a moment what is warm and vital in us – the blood – is replaced by something icy and unmoving, and thus the language conveys what terror does to the body. The transfer is physiological: fear generates vasoconstriction and the feeling of cold in the body, and English freezes this sense into the construction.

Motivating features: paralysis, immobility, cold shock, loss of vitality, the inner warmth of life replaced by stillness.

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: *Operational and evaluative categories (idiomatic)*

Sphere. Ice as communicative impenetrability

Regular direction of metaphorical transfer: *ICE → COMMUNICATIVE IMPENETRABILITY*

…to extend onto the thin ice of speculation and comparison with other animals but all this cuts little ice with someone who's…

…even in the ice of the mystery…

…that gloom and doom cut no ice with Conservative voters…

…discoveries about genetics cut no ice with human evolution…

…Terms like I'm fine and there's no need to worry don't cut much ice after two months away…

Ice in this productive idiomatic cluster is a figurative surface of resistance: a hard, impenetrable medium that cannot be cut, shattered or penetrated by reason or persuasion. The idiom to cut no ice (or to cut little / not much ice) refers to the failure of persuasion across speech domains – political (Conservative voters), scientific (human development), interpersonal (the partner who returns to "I'm fine). The ice of mystery refers to knowledge or information that has frozen into impenetrable form: sealed, unreachable, locked away behind something the mind cannot warm or unlock. The associated building of the ice of mystery Resistance, stiffness, impermeability and absence of emotional or metaphorical response are the motifs

throughout the cluster. The addressee is the frozen surface in this metaphor and the speaker's logic is the blade which slides off without leaving the slightest mark.

Motivating features: resistance, stiffness, impermeability, frozen surface of the addressee, failure of argument as failure to penetrate.

Sphere. Thin ice as risky situation

Regular direction of metaphorical transfer: *THIN ICE → DANGEROUS SITUATION*

…To skate on thin ice – to act in a way that risks failure or trouble.

…to extend onto the thin ice of speculation…

Skating on *thin ice* is a construction and verbal metaphor for a risky situation in which any false move may lead to catastrophe. The image that inspires this is the frozen pond, in early winter or late spring, whose surface is too thin to hold the skater; the ice holds, for now, but it cannot be trusted. This metaphor extends this physical state to risky issues, risky negotiations and risky behavior. The expression *thin ice of speculation* carries the same idea into the figurative register: the speculative argument rests on a surface that may collapse at any time.

Motivating features: precariousness, the surface that is visible but untrustworthy, and the possibility of rapid collapse.

Sphere. On ice as suspension

Regular direction of metaphorical transfer: *ON ICE → SUSPENDED ACTIVITY*

…To put a project on ice – to suspend an activity, holding it in preserved but inactive state.

…To keep on ice – to hold in reserve, ready to be resumed.

The construction to *put on ice* (and the parallel to keep on ice) names the deliberate suspension of an activity, project, or plan with the implicit understanding that it may be resumed later. The motivating image is the physical practice of preserving perishable substances on ice: the object is not destroyed but held in a state of arrested activity, ready to be restored when conditions allow. The metaphor projects this practice onto institutional, commercial, and personal planning. The motivating features are suspension without termination, preservation, and the possibility of future resumption.

Motivating features: suspension without termination, preservation in arrested state, the possibility of future resumption, ice as natural refrigerator.

Subsphere: *The lethal force of indifferent nature*

Sphere. Icy wastes as hostile environment

Regular direction of metaphorical transfer: *ICY → DEATHLY INDIFFERENCE OF NATURE*

…a disastrous retreat in the icy wastes of the Russian winter could only be staved off with difficulty…

Here *icy* wastes does much more than describe low temperature. It builds the landscape into something hostile and emptied of life – a place that does not merely chill the human body but seems to refuse it altogether. The cold becomes the character of the land itself, vast and indifferent, and the retreat is set against a space

that offers nothing back. The metaphorical transfer represents nature as a deathly indifferent force, vast in scale and lethal in operation. The metaphor belongs to the English literary memory of polar exploration and continental retreat, discussed in the linguocultural block.

Motivating features: extremity, lifelessness, hostility, indifference, fatal immensity, the landscape as deathly agent.

Sphere. Ice as devouring force of nature

Regular direction of metaphorical transfer: *ICE → PREDATORY DEVOURING FORCE*

…The ice wants to eat us – men, dogs, sledges, everything…

Here the *ice* is given agency and a kind of predatory hunger, turning a natural element into a living, hostile presence. The metaphor moves out of the territory of emotional coldness and into something far more frightening: ice no longer merely isolates or numbs – it consumes. It wants. It eats. The construction belongs to the literary tradition of polar disaster – Scott, Shackleton, Franklin – in which the ice is the active antagonist of the expedition rather than a passive obstacle [209].

Motivating features: destructiveness, engulfment, insatiability, hostility, the natural element as predator with appetite.

Total directions of metaphorical transfer (main analysis): 18. Total regular metaphorical transfers identified: 18. Total spheres of target representation: 18.

Ice and *icy* are exceptionally productive in verbal and quasi-verbal forms in English. *To break the ice, to melt the ice, to keep on ice, to skate on thin ice, to cut no ice, to ice over, to be iced out* – the paradigm covers physical action, social initiation, emotional reconciliation, communicative failure, and even exclusion in modern colloquial speech. The English speaker who breaks the ice at a meeting, who melts the ice between two estranged partners, who cuts no ice with a stubborn doctor, all share the same grammatical and figurative frame: a thermal-state-becoming-deed. The frozen surface, in this sense, is not a passive backdrop but a medium that the speaker acts upon, breaks through, melts, or fails to penetrate.

The first encounter is a frozen lake whose surface must be cracked before warmth can flow; the risky topic is *thin ice* that may give way at any step; the suspended plan is *on ice*, preserved but inactive; the unconvincing argument *cuts no ice* with the listener. Behind this cluster of meanings lies a recognisable English social world – the dinner party of strangers, the awkward silence before the conversation begins, the polite caution that surrounds difficult subjects. English social life has long understood itself through the metaphor of the frozen surface, and the recurrence of these idioms in contemporary speech suggests that the metaphor still does meaningful work: the speaker who breaks the ice at a meeting is performing, however unconsciously, a small ritual that English culture has practiced for centuries.

Ice as a noun dominates the figurative and communicative register: *the ice of mystery, cuts no ice, thin ice of speculation*. Icy as an adjective is concentrated on emotional and perceptual evaluation: *icy love, icy disdain, icy stars, icy eyes, icy publicist, icy power, icy wastes*. The two grammatical realizations thus divide

between them, with considerable consistency, the human pole into which they project.

The image of the frozen wastes and the metaphor of ice as a consuming force are part of a considerable literary heritage in English, based on the experience of arctic research, on the Napoleonic and Hitlerian retreats from the East, and on the cultural memory of Scott, Shackleton and Franklin. This is not the ice of the English hearth, but the ice of the expedition, the ice of the catastrophe, and the ice of the cinematic panorama of national heroism and national tragedy. To talk of ice as eating, in this phrase, is to take on the whole literature of Anglo-Saxon polar tragedy. The ice that wants to eat us, the ship caught in the ice, the men and dogs and sledges eaten by the white stillness – this is not a vocabulary that was born in the English kitchen or the English garden. Its origins lay in the diaries of Franklin and Scott, in the reports brought back by Shackleton, in the long English history of writing about voyages which failed to return [209].

Robert Falcon Scott's fatal return march from the South Pole in 1912, Ernest Shackleton's Endurance expedition of 1914-1917 in which the ship was crushed by pack ice in the Weddell Sea, and Sir John Franklin's lost Arctic expedition of 1845 whose entire crew perished in the ice, are all independently attested in standard biographical and historical reference works [203]. Rather than merely symbolic, the three expeditions invoked here are, in the historical record, In this way the language of consuming, hostile ice in the English corpus may be located in a specific and well-documented body of national memory, rather than in a general literary convention.

The adjective frosty is animated by a particular cultural memory. Icy scorn, icy beauty, an icy gaze, the icy power of the goddess, the icy queen – the term sticks to the female form, sovereign and untouchable, lovely and unaffected. Behind this distribution sits the Snow Queen, the ice-maiden, the icy woman of the north, a lengthy European fairy-tale archetype, refracted via Hans Christian Andersen, through the Romantic fascination with Scandinavia, and through twentieth-century cinema.

The frosty publicist of the celebrity press and the frosty heiress of the gossip column are of the same imagination as the ice-queen of the fairy tale: each at a measured distance, each revered and loathed in equal measure, each designated by the same frigid epithet. This is how English ice is gendered. It’s got a face. The face is female, desirable, unattainable.

The archetype discussed here has a specific literary source in the fairy tale “The Snow Queen” (“Snedronningen”, 1844) by Hans Christian Andersen, which was absorbed into the English-language culture through nineteenth-century translation, and remained a formative influence on the English popular imagination through many twentieth- and twenty-first-century adaptations [210]. The repeated collocation of icy with a sovereign, untouchable female figure in the English corpus, therefore, demonstrates the afterlife of a traceable literary source, rather than a purely abstract or fortuitous link.

The ice register is the extreme pole of the same scale, the absolute end point where feeling has not only cooled but frozen solid. English thermal lexicon has a structure: starting with the cool of measured welcome, it proceeds through the cold of delayed warmth, arrives at the chill of bodily shock, the frost of severity, and ends in the ice of absolute emotional petrification. The eighteen spheres of this section are at the high end of that range, where thermal metaphor ceases to be evaluative and becomes irreversible [199; 211].

Conclusions to chapter 2

The metaphorical analysis of the English meteorological lexis presented in this chapter allows us to draw the following conclusions, which are structured according to the key thematic areas of the chapter, the prevalent directions of metaphorical transfer found within them and their underlying driving features:

1. In all five theme divisions – atmospheric air masses, solid and liquid precipitation, electrical and acoustic phenomena, temperature, and ice – the main channel of metaphorical transmission is from the natural phenomenon to the human being. The main analysis identified 65 regular directions of transfer, distributed as follows: 21 for atmospheric air masses, 11 for solid and liquid precipitation, 7 for electrical and acoustic phenomena, 8 for temperature and 18 for ice (see Table 10); 51 of them (78.5 %) lead to the target spheres PSYCHIC WORLD and HUMAN (see Table 11). The directions identified in the chapter include, in particular, WIND → POLITICAL / SOCIAL CHANGE and STORM → SOCIAL / POLITICAL CONFLICT for atmospheric air masses, HAIL → VERBAL OR INFORMATIONAL ASSAULT and SNOW → PSYCHOLOGICAL OVERLOAD for precipitation, THUNDER → HUMAN VOICE / AUTHORITY and LIGHTNING → SUDDEN UNFORESEEN EVENT for electrical and sound phenomena, COLD → SOCIAL REJECTION / UNFRIENDLY RECEPTION for temperature, and ICE → INTERNALIZED EMOTIONAL DETACHMENT for ice. The metaphorical inventory is primarily of human character, emotion, speech, and moral standing, confirming the strongly anthropocentric orientation of the English meteorological worldview.

2. The wind and storm lexis of English retains the everyday reality of an island and sea people. Constructions such as rained off, to take by storm, and a straw in the wind, and the folk-meteonyms Robin Hood`s wind and Cape Doctor, belong to a world where the calendar of the weather matched with the calendar of the farm and the ship.

3. The texture of the precipitation lexis is that of a rural and artisanal economy. Labor and household of pre-industrial Britain are compactly lexicalized in a formula snowed under for the overloaded modern worker: Rain that falls in pitchforks and darning-needles.

4. The lexis of thunder and lightning encodes a pulpit-and-bench register of authority. To thunder against an opponent, or from the pulpit, puts the speaker in the position of moral or institutional authority; lightning, in contrast, clusters around speed, illumination, and the unforeseen – a flash of insight, a bolt from the blue.

5. The languages of heat and cold are embedded in a Christian moral universe, where warmth is love and coldness is withholding – cold comfort, cold as charity, the cold shoulder of the unheated medieval kitchen – so that temperature becomes as much a measure of the soul as of the air.

6. There is a persistent personification and moralizing of weather throughout the content. God's wind, the ill wind, the devil in the whirlwind, all show a peculiar English disinclination to treat atmospheric power as a purely physical event, and a corresponding tendency to read it as a symbol.

7. The English ice has a certain register of hostile, devouring immensity, from the literary memory of polar disaster – the ice that wants to eat us – from Scott, Shackleton and Franklin rather than the domestic interior; the adjectival icy, however, leans toward the sovereign and untouchable female figure of the Snow Queen archetype.

Taken together, these findings show that English meteorological metaphor is organized around a set of distinct culturally embedded spheres: the anthropocentric orientation of the transfer, the maritime and agricultural memory encoded in wind and storm, the moral-religious register of thunder and the literary-historical stratum of ice, each with its own motivating features grounded in English cultural and literary history. In the next chapter we turn to the Kazakh material to find out whether and to what extent the identical thematic fields and directions of metaphorical transfer are organized by a comparable – or, in contrast, a fundamentally different – collection of culturally grounded motivational elements.

3 METAPHORIZATION OF METEOROLOGICAL LEXIS IN THE KAZAKH LANGUAGE

3.1 "Air and wind" imagery in a metaphorical sense

The boundless expanse of the steppe historically prompted the Kazakh people to seek ways of domesticating space – of drawing the world inward and anchoring it to the point of the dwelling. This impulse found its most complete expression in the architecture of the yurt (*киіз үй*): a structure that is at once cosmological, aesthetic, and deeply practical, since nothing is better suited to nomadic life than a dwelling that can be assembled and dismantled with ease. Yet the yurt is not merely a portable home – it is a considered architectural response to the defining challenge of the steppe: the wind.

In the open steppe, where there is no natural shelter from the force of the wind, the form of the dwelling had to work with aerodynamic reality rather than against it. It is for this reason that UNESCO recognized the yurt as a remarkable achievement of traditional engineering.

Wind, therefore, occupies a central place in the present study. The steppe and the sea share a common restlessness, and in both Kazakh and English cultural traditions the wind is far more than a meteorological backdrop – it is a structuring element of the worldview. This is reflected in language itself: Kazakh possesses an extensive system of verbs for *wind* phenomena – *борандату, боран тұру, сойқан салу, ескектеу* – whereas English has no cognate verb for storm or windstorm, relying instead on descriptive constructions to convey what Kazakh expresses in a single word.

In this chapter, we analyze the metaphorical meaning and ways of using the lexemes *wind* and *storm* in Kazakh.

In Kazakh language, to highlight the layer of meteorological lexis, we also turned to lexicographic sources; then we started working with NCKL and ACKL corpuses, which serves as a source of practical material and is illustrative.

Kazakh nomads were mainly engaged in cattle breeding. It was vital to endure the long-distance passages, constantly to move in search of wintering grounds, new pastures, suitable for animals, therefore the climatic conditions played a key role in survival – the life of a nomad was directly dependent on meteorological phenomena. Difficult weather conditions, as well as vast endless steppe zones, a flat surface of the earth: without mountains, plains and forest areas made it difficult for the nomadic image of nomads, where it is sometimes impossible to hide or get protection from the adverse effects of the wind/storm.

Considering the nomadic lifestyle of the Kazakh people, we found a huge number of meteonyms, associated with the name of the wind. The Kazakh language is richer in snow-related meteonyms than English – a difference that reflects the harsher winters faced by a nomadic herding culture, for whom the cold season was not merely uncomfortable but a matter of survival. Next, we propose to consider the dictionary entry on the types of wind www.sozdik.kz [194].

It should be emphasized that the names of *жел* in the Kazakh language are differentiated according to the seasons of the year, with each season having its own

characteristic types of wind: spring, summer, autumn and winter.

We also turned to the dictionary *Казақ тілінің сөзжасам сөздігі* (word-formation dictionary of the Kazakh language) by A.B. Salkynbay, in which he offers the vocabulary collocation entries for *боран* at different lexical levels.

Боран қара боран, боранды-шашынды, боран-шашын, боран-шашынсыз, ақ түтек боран, ақ шұнақборан, аққұйрық боран, алай-түлей боран, алақаншық боран, дауыл боран, долы боран, жаяу боран, қара боран, құм боран, майлы боран, сұрапыл боран, сырғыма боран, ұйытқыма боран, үскірік боран, ызғырық боран, ақ түтек борасын, жаяу борасын, борасынды – бұрқасынды, қардай борату [172].

A *storm* in Kazakh is associated with precipitation in the form of snow, accompanied by winds with the various degrees of speed, while in English; a storm does not necessarily have to rise with snow. This meteorological phenomenon is used in the context of the sea element, which is not observed in the Kazakh language.

Another name for high intensity wind *дауыл*: *дауыл құу, дауыл соққандай, дауыл тұру, дауыл үйіру, кек дауылы, көк дауыл, қара дауыл, қарлы дауыл* [172].

The dictionary entries of combinability are desirable at the harmonic levels. The following units belong to the semantic group *wind*/ *жел*: phrases noun + verb:

…Айдарынан жел есу, аңызақ жел, аузының желі бар, аяғының желі бар, ескек жел, жайдақ жел, жастық желі, жел ағысы, жел ағысы, желарқан, жела-уызды, жел беру, желбесік, желден жүйрік, желдің құты, желжақ, жел жапырған құрақтай, жел жетпейтін, жел қағу, жел қарысу, желқұйын, жел мінезді, желөрнегі, желөсек, жел өту, *желөсек, желсаңлақ, жел тимес, желі оңынан тұру, жібек жел, кеудесіне жел біту, көңіліне жел біту, қаламның желі бар…*

Further there are the combinations Noun + Adjective and Noun + Noun:

қара жел, коңыр жел, құма жел, мырза жел, өкпек жел, самал жел, үскірік жел ызғырық, жел желайдар, жела-уыз, желбағар, желбас, желбау, желбезек, желбөгет, желбуаз, желбұйда, желбүйрек, желкөз, желкөкірек, желқабаз, желқом, желқуар, жулқуық, жел-күз, желқұйрық, желқұса, желқұян, желөкпе [172].

Types of wind with varying degrees of speed: *баяу жел* – calm breeze, *желең жел* – calm wind, *желемік жел* – light wind, *желорай* – draft, *жеңіл жел* – light breeze, expressionless breeze, *жоғары жел* – high wind, *ебі жел* – nimble wind, *ескек жел* – gusty wind, *еспе жел* – refreshing breeze, *заулама жел* – rushing, gusty wind, *көлденең жел* – crosswind*, қайтыс жел* – wind that increases its pace [195].

In Kazakh language, there are more names of winds, associated with *керімсал жел* – dry wind that rises from the south in July, *ала құйын* – motley tornado, *аңызақ жел* – dry wind, warm, *алтын күрек* – south wind that blows at the end of winter, melting snow, *дауыл* – storm, dust storm, *жайдақ жел* – wind without rain, wind that slowly hits the dust, *жатаған жел* – low creeping wind, *қарыма жел* –

sharp wind, prickly, *қара құйын* – black tornado that raises the sand, *азынау жел* – loud, howling wind, *қара дауыл* – wind that blows up dust and soil, *қара жел* – strong wind, on a cloudy day [195].

Types of names *жел* mixed with snow: *боранды жел* – storm wind that carries the snow, *борасын* – snowstorm, *бұрқасын, бұрқақ* – quiet wind that blows the snow, *ақ құйын* – snow tornado, *жаяу боран* – snowstorm covering the layer of snow, *жаяу борасын* – cold wind, *жаяу бұрқасын* – drifting snow, slow blizzard, *көк дауыл* – frosty snowstorm, *қара боран* – snowy blizzard [195].

Up to 70 names of *жел* have been recorded, during the analysis we chose the following non-equivalent expressions with *жел*, see Table 7.

Table 7 – Chromatization of *wind* in Kazakh language

Definition	**Translation and meaning**	**Examples in English**
қара жел (бұлтты күнгі ызғарлы жел)	black wind (strong wind on a cloudy day)	*strong wind*
қоңыр жел (майда, самал жел)	brown wind (light wind)	*zephyr*
қызыл жел (аңызақ ыстық жел)	red wind (dry hot wind, dry wind)	*dry hot wind*
сары жел (тынымсыз соққан жел)	yellow wind (constantly blowing wind)	*continual wind*

Ormanbekova A.K. gives the various examples of stable combinations and phraseological units with lexeme “wind” in Kazakh language in Table 8 [52].

Table 8 – Fixed expressions and collocations with *wind* in Kazakh language

Даланың қоңыр желіндей	*Даланың қоңыр желіндей, жай соққан самалындай лүпіп толқып, Тобықты жайлауларын түгел шаршып өтті. І. Жансүгіров*
Ебінің сары желіндей	*Ебінің сары желіндей Саулайды екен сол сарын. І. Жансүгіров*
Желдей есу	*Ханбибі сұлу деседі, Дабысың желдей еседі. Батырлар жыры*
Желдей желу	*Күнікейді мінгізіп тел Қонырға, Батырлар елге қарай желдей желді. Батырлар жыры*
Желдей жүйрік	*Астында желдей жүйрік ат, жанында өзіндей кілең батыр жігіт. І. Есенберлин*
Желдей жүйтку	*Желе жортып бүлкілдеп, Жүйткіп желдей екпіндер. Ғ. Орманов*
Желдей зулау	*Желдей зулап келеді, Көзін қадап жыраққа. Батырлар*

	жыры
Желдей сырғу	*Деді де, құла атқа мінді қарғып, тартты құла желдей сырғып. С. Мұқанов*
Желдей улеу	*Урейлі хабар желдей улеп еді. Х. Есенжанов*
Желден жүйрік	*Желден жүйрік желмаям білмеймін неге озбайды. Ж. Сыздықов*
Желден жылдам	*Су ері желден жылдам, мұздан күшті, Шмидтің отряды жайланысты. І. Жансүгіров*

After defining the meteorological lexis that relate to the thematic subgroup of words, which characterize the "atmospheric air masses", we turned to the search for corpus examples. So, on the main page of Kazakh corpus there are the following possibilities to find the necessary information: you can enter a part of speech in the search line. The request *жел* showed 500 matches in NCKL (Figure 4). The selected metaphors were analyzed together with the results in ACKL query (Figure 5).

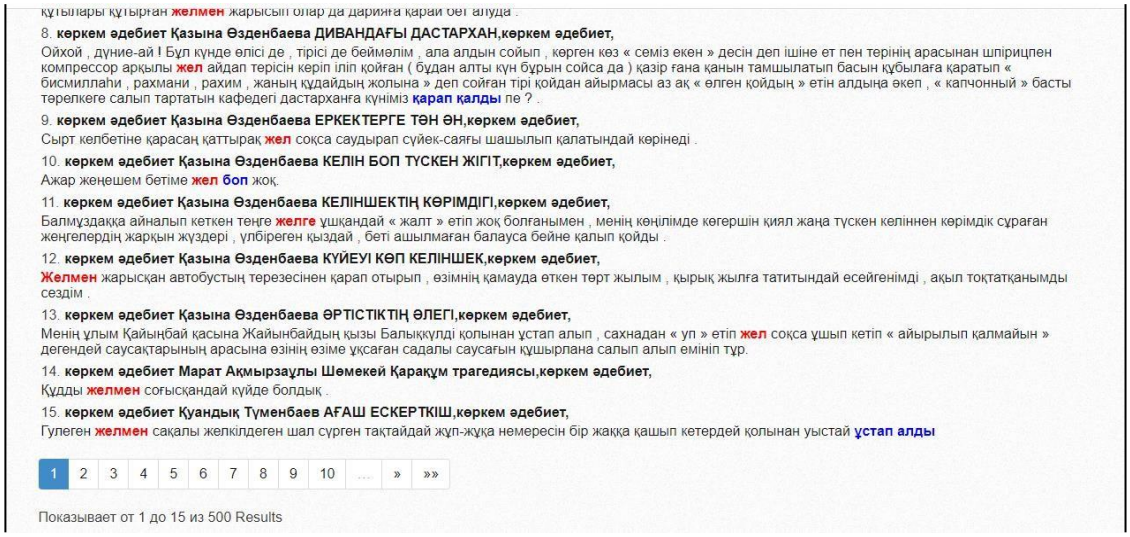


Figure 4 – Concordance list with *жел* – Concordance list with *жел*

As noted above, the Kazakh meteorological lexicon includes a particularly extensive set of wind names.

We turned to the Kazakh Corpus to study the metaphors with the wind in the Kazakh language, 312 matches were found, 33 documents for searching for *жел* and *боран* (see Figure 5).

According to the results, the metaphorical representation of *wind* in two languages differs in how they affect other objects. The wind is presented as a natural force against which people are inert. In metaphorical terms, the wind manifests itself as a powerful natural force that displaces/effects objects, at the same time it is described as a light breeze that includes various positive characteristics. All of them lead to spatial movements. The next type of impact of the *wind* is tactile when it comes into physical contact with entities, where the main perception is not visual but physical, giving the object of a sense of vitality. The spatial attributes of the

wind are sometimes directional: the wind blows horizontally; a gradation of intensity is observed which is manifested in positive or negative metaphorical connotations.

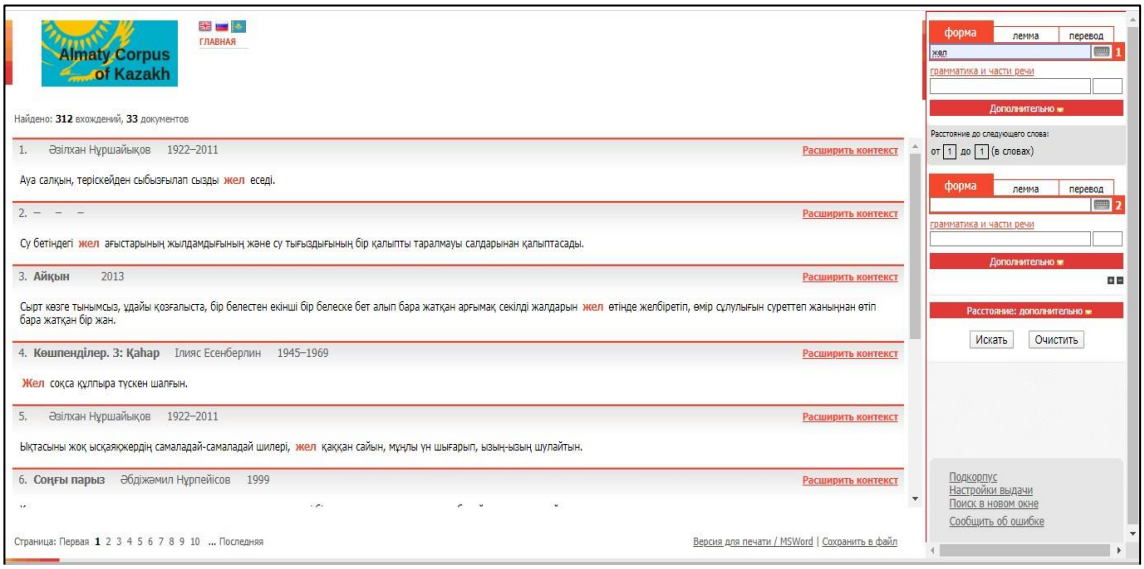


Figure 5 – ACKL concordance results – ACKL

The semantic structure of the Kazakh noun *жел* and its derivatives, drawn from the National Corpus of the Kazakh Language and from lexicographic sources, yields a particularly rich metaphorical inventory: *қоңыр жел, қызыл жел, сары жел, қара жел, қара боран, қара дауыл, қара құйын, ала құйын, ақ құйын, көк дауыл, жел қабамыз, жел жұтты, жел қарысты, ұры жел, айқай жел, кәрлі жел, долы жел, құтырған жел, жел өкпе, жел бауыр, желқуар, жел аяқ, желді аяқ, жел буаз, желім ауыз, жел ауыз, жел көз, желге кетті, жел сөз, жел жеп қойған, жел шайқаған, жел ұстаған, жел аймаласын, жел бітті, жел беру, желі оңынан тұру, бетіне жел тиген, жел аңырап, жел жұлмалаған, жел жыртып, жел қуық, жел саңлақ, желмая, жел жетпес*.

SOURCE SPHERE: PHYSICAL WORLD

Kazakh lexeme ЖЕЛ (wind) – natural phenomenon, movement of air

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Character and moral traits*

Sphere. The wind in the body organs

Regular direction of metaphorical transfer: *ЖЕЛ → HUMAN CHARACTER (BODY-PART METAPHORS)*

…жел өкпе қайнысын желіктіріп қойып – provoking the wind-lunged young man.

…жел бүйрек әйел – a wind-kidney woman, frivolous and unfaithful.

…жігіттер жел бауыр ат мініп, көкпар тартып – daring young men on wind-livered horses playing kokpar.

…қалжың құмар жел өкпе жігіттер – the joke-loving wind-lunged young.

The Kazakh language develops a remarkable and culturally distinctive paradigm where character traits are anatomically localized in specific internal organs, filled

with wind. The woman with windy kidneys, *Жел бүйрек әйел*, carries the same image of frivolity to women. The wind-liver, *Жел бауыр*, applies the same logic to the daring young horseman in the rough national game *көк-пар.* Each organ has a moral task. The lung is the seat of frivolity and the breath of empty speech; the kidney is the seat of female instability; the liver is the seat of daring or recklessness.

The verbal derivative *желігу* (to be filled with wind, to be agitated, to become excited) belongs to the same paradigm and indicates the moment of entering the wind into the organs, that is, the moment of causing the corresponding behavioral state. The construction *жел өкпе*, the source noun and its verbal derivative act in concert, to make the wind-lunged person feel the very state of wind-filled agitation that he/she is. This anatomical paradigm is the nearest layer of the Kazakh meteorological lexicon: the wind has entered the body and settled in the lung, liver and kidney.

Motivating features: anatomical location; the inner organ as air reservoir; character read off the body as directly as weather off sky.

Sphere. The wind chaser and the wind footed

Regular direction of metaphorical transfer: *ЖЕЛ* → CHARACTER / IMPULSIVITY

…*өртей тұғын сендейлер. Жоғал желқуар*! – go away, you wind-chaser, you fickle one.

…*жеңісін ерте тойлаған желаяқ жеңілді – t*he wind-footed one who had celebrated victory too early was beaten.

Желқуар (literally one who chases the wind) is the impulsive, light-minded person who follows the wind wherever it goes, a figure judged negatively in the Kazakh moral register. The term *Желаяқ* (wind-foot) has an interesting double evaluation in the corpus. Used of a restless human being it is pejorative, naming the wanderer who cannot stay in one place; used of a swift racehorse (or the variant *желді аяқ*) it is meliorative, naming the prized speed of the racing animal. The same anatomical image, the foot moving in the wind, has opposite moral valences according to whether the figure is human or equine.

Motivating features: Restlessness, impulsivity, double evaluation (negative for the human, positive for the horse), the foot as the seat of restlessness.

Sphere. The wind as a touch of taint

Regular direction of metaphorical transfer: *ЖЕЛ → MORAL PURITY / OFFENCE*

...денесіне желден басқаны тигізгісі келмейтін жаны таза қыз – the pure-souled girl who allows nothing but the wind to touch her body.

...денесіне жел тимеген – untouched by the wind.

...бетіне жел тимеген – whose face the wind has not touched.

...екеуміз бір-біріміздің бетіне жел болып тиген емеспіз – we have never even touched each other's face like wind (caused offence).

A culturally distinctive cluster develops around the construction *жел тимеген* – untouched by the wind – and its variants *денесіне / етегіне / тәніне / бетіне жел тимеген.* The construction calls moral purity and chastity the body untouched by the wind, the sinless body, the chaste, noble body. The metaphor parallels *күн тимеген*

– not touched by the sun. Together they make up a paired image of pampering and protection from the least unpleasantness. From this it acquires another meaning: *жел болып тию* – to touch (someone) like wind – names the act of bringing the slightest offense; *жел тигізбей* means “not to offend, not to harm even slightly”. The motivating features are physical contact, the wind as a potential polluting agent and the protection of the body against any external touch – even the gentlest.

Motivating features: contact as defilement, the body as vessel to be protected, paired image with sun (*күн тимеген*), slightest offense as touch of wind.

***Subsphere*:** Speech and verbal behaviour

Sphere. The wind in speech

Regular direction of metaphorical transfer: *ЖЕЛ → SPEECH ACTIVITY*

...көмескі естілген дүдәмал, жел буаз әңгіме – vague, inflated, pointless conversation.

...жел ауыз боп мақтаған сөзбен – with words spoken by a wind-mouth (eloquent or empty orator).

...осындай желім ауыз – a sticky-mouthed flatterer.

The Kazakh *wind* enters the verbal sphere through three distinct paths. *Жел буаз* – literally inflated with air – names an empty, pointless conversation; the metaphor is built on the feature lack of meaning. *Жел ауыз* carries a double evaluation: in one context it names an idle chatterer, in another a talented orator with the ability to express thoughts eloquently – the same ambivalence that runs through *жел аяқ. Желім ауыз* – the sticky mouth – names the intrusive flatterer who clings like a leaf to high authorities for personal gain. The motivating features are emptiness, fluidity, and the speed and volume of air leaving the lungs.

Motivating features: emptiness of air, fluidity, speed of utterance, double evaluation (eloquence vs vacuity).

Subsphere: *Emotional and inner life*

Sphere. The wind as inner surge and inspiration

Regular direction of metaphorical transfer: *ЖЕЛ → INNER DRIVE / EMOTION*

...күйкі көңіліне жел бітіп, желпінін – the wind formed in his sad heart and lifted him up.

...саябыр тартып, сабыр таба қалған көңілдерге тағы да жел бітті – the wind formed again in the calmed hearts.

...Мұсатайлар жел беріп жіберіп еді, Әбілтай шырқап берді – Musatai gave wind (encouraged), and Abiltai burst into song.

Another symbolic transmission is the entrance of the wind into the inner life of the person as the agent of unexpected feeling. *Жел бітті* – the wind has formed (inside) – is the name given to the unexpected rush of passion or inspiration that fills the heart and lifts the person aloft. *Жел бітті* is the verb "has come into being, has formed." The construction is one of emotion as internal weather. *Жел беру* – to give wind –is to give the encouraging push one person gives another to begin an action, to encourage, to inspire to song. The partial equivalent in English is to spur on, to give a

push, but the Kazakh picture is explicitly of supplying wind, of providing the moving power from outside which the heart then receives.

Motivating features: sudden internal motion, agency of an external push, the heart as the place where the wind of feeling forms, the social act of giving wind to another.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Physical action on the body*

Sphere. The wind as harmful physical touch

Regular direction of metaphorical transfer: *ЖЕЛ → PHYSICAL ACTION ON HUMAN BODY*

…жел жеп қойған қылилау оң жақ көзі – the wind has corroded his right eye.

…жел шайқаған, күндізгі аңызақ – the wind shakes, like a living being.

…жел ұстаған белі қиқаң – the wind has caught his lower back.

…суық жел жұқа киімнің ішіне кіріп – the cold wind enters under the thin clothing.

…суық жел кеулеп – the cold wind has filled (the clothes).

Distinct from the general personification described above, the wind in this register acts on the human body as a destructive or invasive force: it corrodes (*жеп қойған,* literally has eaten), shakes (*шайқаған*), grasps (*ұстаған*), penetrates clothing (*кіріп),* and fills space (*кеулеп*). The verb *жеп (*ate) is the strongest example of the destructive register: the wind is a creature with a mouth that has consumed part of the body – typically said of weakened or partially blind eyes. The motivating features are physical impact and unwelcome penetration.

Motivating features: destructive contact, unwelcome penetration, the body as a vessel exposed to harmful air, the cold as the marker of unwelcome touch.

Sphere. The wind as gentle caress

Regular direction of metaphorical transfer: *ЖЕЛ → AFFECTIONATE TOUCH*

…денеңді жел аймаласын – let the wind caress your body.

…күн үйдіріп, жел сүйіп – the sun warms, the wind kisses.

This is the region of the opposing pole of personification, the wind that caresses and kisses the body. The verb *аймалау* is designated for the affectionate hug of a parent or a lover. So is the verb *сүйу (*to kiss). The structure *күн үйдіріп, жел сүйіп* – the sun warms and the wind kisses – links the wind with the sun in a prolonged image of gentle natural agents who nurture the human body. So the wind in Kazakhstan has a double moral valuation: it is both destructive and affectionate - an ambivalence which goes through the whole metaphorical inventory of *жел,* and which echoes the ambivalence of *суық (*severity / self-possession) in the chapter on cold.

Motivating features: gentle touch, affection, the coupling of wind and sun as caring natural agents.

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: *Emptiness and futility*

Sphere. The wind as food and emptiness

Regular direction of metaphorical transfer: *ЖЕЛ → FOOD / NOURISHMENT*

...орта қазанның ұнын бере алмаймын. Онда барғанша жел қабамыз ба? – what will we eat, wind?

...бөрі құрсақтанды, ас орнына жел жұтты – the belly is full of wind, swallowed wind instead of food.

In a strange collection of Kazakh idioms, the wind becomes a substitute for food. The metaphor is formed by the projection of the emptiness and intangibility of the wind onto the lack of nourishment: *жел қабамыз ба* is an ironic acceptance of the fact that there is nothing to eat; *ас орнына жел жұтты* is the act of filling the belly with air instead of genuine sustenance. The transfer is founded on the properties of emptiness, intangibility and the impossibility to satisfy hunger with the unattainable.

Motivating features: emptiness, intangibility, failure to fulfill hunger, deprivation.

Sphere. The wind as futility and waste

Regular direction of metaphorical transfer: *ЖЕЛ → FUTILITY / IDLE SPEECH*

...оның бәрі желге кеткелі тұр – all of that is about to go to the wind.

...Қамар жел сөзге араласпайды – Qamar does not engage in wind-talk.

...көрсе қызардың көпіршіген жел сөзі – the bubbling wind-words of the envious.

Желге кетті – to lose effort, time or hope; *жел сөз* – idle talk, boasting and unwarranted praise; These two expressions are a fruitful pair: one names the loss of substantial effort, the other names speech which has no substance to lose. The motivating elements include non-materiality, the lightness and the difficulty to recapture what has been carried away.

Motivating features: intangibility, lightness, irreversible loss, wind as means of spread.

Subsphere: Fate and Fortune

Sphere. The wind as luck and direction of fortune

Regular direction of metaphorical transfer: ЖЕЛ → FATE / LUCK

...Дәме екеуміздің желіміз оңынан тұрды – our wind blew from the right side (we were lucky).

...айдарынан желі есу – the wind blowing from his forelock (to be lucky in one's affairs).

The Kazakh wind enters the lexicon of fortune through directional metaphor. *Желі оңынан тұру* – the wind blew from the right side – names the favourable arrangement of fortune; the right side carries the conventional positive valuation found in many cultures. *Айдарынан желі есу* – the wind blowing from one's forelock – preserves the equestrian register that runs through much of the *жел* lexicon (*the айдар* is the forelock or tuft of hair on the head, often associated with the warrior and the racehorse). The motivating features are direction, motion, and the

perception of fortune as an external force whose orientation favours or disfavours the human subject.

Motivating features: directionality, the right side as the favourable orientation, fortune as an external moving force, the forelock as the point at which the wind of luck strikes.

Personification – Reverse Transfer: ANIMATE BEING / ANIMAL → PHYSICAL WORLD (the wind endowed with life)

Subsphere: *The wind as animate and emotional agent*

Sphere. The wind as a living and feeling agent

Regular direction of metaphorical transfer: *ЖЕЛ → LIVING BEING / EMOTION*

...ұры жел көзге ілінбей зыр жүгіріп – the thief-wind running unnoticed.

...түндегі айқай жел басылса да – the shouting wind of the night.

...гуілдей соққан кәрлі жел ұйқы бермеді – the fierce wind would not let one sleep.

...долы жел шығып – the evil, raging wind.

...құтырған желмен жарысып – racing with the maddened wind.

An entire family of adjective constructions develops in which the wind is a living and feeling force: the invisible thief (*ұры жел*), the night that cries out (*айқай жел*), the fierce and cruel wind (*кәрлі жел*), the evil wind (*долы жел*), the wind that has gone mad (*құтырған жел*) which are treated as personification metaphors. The wind is endowed with intention, emotion, and a moral character – anger, cruelty, madness, and the cunning of a thief. The motivating features are movement, sound, invisibility, and emotional intensity.

Motivating features: agentive action, intentionality, emotional intensity, moral character, the wind as a quasi-living presence.

Subsphere: *The wind as wild predatory beast*

Sphere. The wind as a wild predatory animal

Regular direction of metaphorical transfer: *ЖЕЛ → WILD ANIMAL*

...есіктен соққан жел аңырап төрді қаптайды – the wind howls from the door and fills the room.

...жел жұлмалаған, азынаған жел – the tearing, growling wind.

...ұйтқыған жел жұлып үзіп ала жөнелгендей – as if the swirling wind snatched and tore.

...қатты жел жыртып – the strong wind tearing.

...кейде жел жұлқынып – sometimes the wind lunges.

The verb *аңырау* describes the howl of a wolf or wild beast; *азынау* is the growl of a predator; *жұлмалау, жұлу, жырту, жұлқыну* belong to the lexicon of an animal that tears and snatches with teeth and claws. The wind is no longer simply animate but specifically the wild predator that moves chaotically, attacks objects, and dismembers what it catches. The motivating features are wildness, untamed force, and the predatory mode of action.

Motivating features: predatory action, howling and growling, tearing motion, untamed energy, the *wind* as a wolf or wild beast of the steppe.

Reverse / Comparative Transfer: the WIND as benchmark → ANIMAL

Subsphere: *Speed of the horse, camel and kulan*

Sphere. The horse as wind – speed and endurance

Regular direction of metaphorical transfer*: ANIMAL (HORSE / CAMEL / KULAN) → WIND*

...жел құық жылқы – a wind-bladder horse (a fast, hardy horse, lit. 'wind-filled like a bladder').

...жел саңлақ – the wind-racer, a swift trained horse.

...желмая – the wind-camel; the swift one-humped racing camel.

...желмаяға жел жетпес – even the wind cannot catch up with the wind-camel.

...сом болат төрт тұяқтан желісіне жел жетпес – its four hooves of solid steel run faster than the wind itself.

...жел жетпейтін құландар – kulans the wind cannot catch (the great Kazakh poets).

This sphere is methodologically distinct from the rest of the analysis in that the direction of metaphorical transfer is reversed. Where the previous spheres had *жел* as the source domain projected onto various human targets, here *жел* functions as the comparative reference point against which the speed of the racehorse, the racing camel, and the wild kulan is measured. The horse and the camel are not described as wind; rather, they are described as so swift that even the wind cannot catch up (*желмаяға жел жетпес, желісіне жел жетпес, жел жетпейтін құландар).*

The choice of horse, camel and kulan as points of reference for wind-speed is deliberate, and is based upon the ethnographic setting of the nomadic way of life. Kazakh folk meteorology employed the behavior of animals as a primitive barometer of atmospheric change. For example, the constant whinnying and stamping of horses was considered to be a sign of an approaching *боран [212].* In this observational method the horse, camel and kulan were not just comparative topics but were the very animals which, by virtue of their speed, endurance and sensitivity to meteorological conditions, set the practical norms of wind and storm for a nomadic pastoral culture. This animal-based understanding of wind dynamics is supported by a large body of anthropological research on traditional Kazakh livestock management [213].

The construction is constitutive of the Kazakh equestrian imagination. The proverbial *жел жетпейтін құландар* – kulans the wind cannot catch – extends from the wild ass to the greatest Kazakh poets, who are honoured as "kulans uncatchable by the wind". A further extension is found in *жел соқпаса шөптің басы қимылдамайды* (if the wind does not blow, the grass will not move), in which the wind becomes the universal first cause of any motion at all. The motivating features are speed, endurance, and freedom; and the cultural framework is that of a population for whom the speed of the horse was the daily measure of human worth.

Motivating features: speed, endurance, freedom, the wind as the universal benchmark of velocity, the reverse direction of comparison.

Total directions of metaphorical transfer (main analysis): 13. Total regular metaphorical transfers identified: 13. Total spheres of target representation: 13.

Жел көз – the window, the fan, the place through which the wind is blown; second meaning: *керегінің кеңірек көзі*.

The compound *жел көз* preserves an older metaphorical motivation in which the opening through which the wind passes was represented as an eye in the wall of the dwelling. In modern Kazakh, however, the compound is the standard architectural term and functions descriptively. It is closely related, etymologically, to similar "eye" –compounds in other domains of the Kazakh lexicon (*бұлақтың көзі* – the eye of the spring; *иненің көзі* – the eye of the needle), all of which testify to a productive but historically anchored representation of the small opening as an eye.

The relation between source (wind) and target (illness, draft) is metonymic (cause and effect within a single figurative field), not metaphorical (a transfer between two semantic spheres). The wind is here the immediate physical cause of the cold illness, not the figurative source for a different figurative domain.

...жел қарысты – to catch a draft (illness from the cold wind).

The construction *жел қарысты* operates through metonymic rather than metaphorical relation: the lexeme *жел* here designates not the meteorological phenomenon itself but the physiological state (illness, draft) caused by it.

...заман – соққан жел – time blows like the wind.

The metaphor identifies time with the moving wind, on the basis of the features of transience, speed, and the absence of obstacle. The construction is noted here for completeness – TIME IS THE WIND would be a productive cross-cultural model – but its limited corpus distribution in the Kazakh material means that it cannot be admitted as a productive metaphorical transfer of the main analysis at this stage. Further corpus work may clarify whether the construction has wider conventional currency.

Terminological-evaluative nominations through a fixed colour code; no cross-domain target representation in the strict sense.

...солтүстіктен соққан суық қара жел – the cold black wind blowing from the north.

...құбыладан соққан қызыл жел – the red wind blowing from the south.

...ұйытқан соққан қоңыр жел – the gentle swirling brown wind.

...қара боран, қара дауыл, көк дауыл, ақ құйын, ала құйын – colour-marked storms and whirlwinds.

The color-designated winds – *қара жел, қызыл жел, қоңыр жел, сары жел* – along with the associated category of color-designated storms – *қара боран, қара дауыл, көк дауыл, ақ құйын, ала құйын* – form a comprehensive chromatic system of meteorological nomenclature that surpasses the English equivalent, rooted in the extensive Kazakh tradition of color symbolism evident in poetry, ornamentation, textiles, and oral epics. *Қара (*black) transcends ordinary color; it embodies the utmost intensity of the phenomenon, the most cutting wind of late autumn, and the profoundest chill. It possesses a potent negative-enhancing symbolic significance, somber, weighty, and austere, which creates a fruitful arrangement of intensifiers (*қара қыс* – the coldest winter, *қара күз* – the deepest autumn, *қара суық* – the

hardest frost, *қара дауыл* – the most powerful storm). Crimson (*қызыл*) transcends the definition of a mere hue. The summer southern steppe is defined by a sweltering, dry, and bothersome breeze. Brown transcends being just a hue. The gentle, warm, and agreeable zephyr of a perfect autumn day is the breeze that conveys the season's solace. This is the identical *қоңыр* that traverses through *қоңыр күз* (soft autumn), *қоңыр ән (*heartfelt music), and *қоңыр дауыс (*the lovely voice). Yellow transcends being just a hue; it embodies a feeling of continuity, persistence, and an incessant zephyr. The chromatic framework of the color-coded storms is extended to the more severe weather phenomena. The Kazakh wind is not an insipid occurrence; it exhibits a color spectrum akin to that of the language. The identical *қара* that denotes the cutting wind also signifies the lengthiest winter, the most profound fall, and the most ferocious *дауыл;* the same *қоңыр.* The gentle tone and fervent melody are termed "the delicate breeze".

Like the other Kazakh meteolexemes examined in the present work, *жел* is not used as a verb in its own right; the noun *жел* requires a predicate. The verbal energy of the wind is realized through fixed combinations of the noun with auxiliary verbs and predicative constructions: *жел беру* (to give wind, to encourage), *жел бітті* (the wind has formed, intense passion), *жел қарысты* (the wind has caught), *жел тиді* (the wind has touched), *жел шайқаған* (the wind has shaken), *жел жұлмалаған* (the wind has torn), *желге кетті* (it went to the wind). Each of these constructions assigns to the wind the role of a hidden agent acting through the verb, while the noun retains its full lexical weight. The Kazakh speaker does not let the wind dissolve into a verb the way English does; the wind remains, grammatically and semantically, a substantive force.

The Kazakh wind is first of all the world of the horse. *Жел құық жылқы* – the fast horse with the wind inside. *Жел саңлақ* – the fast runner, faster than the wind. *Желмая* – the wind-camel who crosses the steppe in one nite. *Жел жетпес* and *жел жетпейтін құландар* – the wild horse that the wind cannot catch and the great poets who are compared to these wild horses.

The architecture *жел тимеген* – undisturbed by the wind – is a paired image with its sister construction *күн тимеген* – unaffected by the sun – and denotes moral and bodily purity. She is the girl with the pure soul who allows only the wind to touch her body, the body undisturbed by wind, the face undamaged by wind. She belongs to an ancient household register in which the body was a vessel to be preserved from all exterior contact, however delicate. The construction derivative *жел болып тию* – to touch like wind – keeps this image and at the same time reverses it: the offense is so small that it touches only "like wind", yet even so it is a touch and qualifies as an offense. The wind of Kazakhstan, in this layer, is both the lightest and the most ethically weighted of touches; it can be borne against the chaste body, and it can be condemned as an offense to the sensitive face.

3.2 "Precipitation" imagery in a metaphorical sense

Further, in parallel, we propose to consider these meteonyms in Kazakh language. In the word-formation dictionary of the Kazakh language (*Казақ тілінің*

сөзжасам сөздігі) A.B. Salkynbay gives the examples of the meteonym *rain (жаңбыр)* with the following uses:

жаңбырлы-шашынды, жаңбыр-шашын, ақжаңбыр, бозжаңбыр, жаңбыр ағындысы, жаңбыр тасқыны, нөсер жаңбыр, өткінші, жаңбыр, сіркіреме жаңбыр, жаңбырдай жаудыру, қарлы жаңбыр, құйын ала құйын, қара құйын құйындауыл, құйын-перен [172].

жаңбыр – drops of atmospheric water that separate from rain clouds and fall to the ground, *ақ жаңбыр* – sheeted continuous rain, *боз жаңбыр* – slow, rustling rain, *қара жаңбыр* – autumn heavy rain, *қарлы жаңбыр* – mixed snow with rain in early spring and autumn, *мұздақ жаңбыр* – icy raindrops fall on the ground, ice, *нөсер* – cumulus ending quickly, heavy rain, *өткінші жаңбыр* – intermittent rain with variable clouds, *соқыр жауын* – fine drip, intermittent rain that occurs at sunrise, *сылбыр жауын* – rain on a windless day, *сіркіреген жаңбыр* – light rain, *сірлету* – that differs from *сіркіреу* with more abundant rainfall but quieter than a downpour, *себездеу* – slow drizzle, *сіркіреме* – fine precipitation falling in the form of small drops [195].

...бұршақ-бұршақ, бұршақ соқты, мойынға бұршақ салды [195].

...аққар, ақ қар, көк мұзда, ақша қар, ала қанат қар, жапалақ қар, көбік қар, күртік қар омбы қар, қар басу, қабағынан қар жауды, шашын ақ қар шалды, қар жауу, қар тебу, қар тоқтату, қасат қар, қиыршық қар, қырбық қар, сонар қар, ұлпа қар, үрме қар, қарлы боран, қарлы жаңбыр, қаршақыз, қарша борату, қарша жаудыру, қарша жауу [195].

Other examples retrieved from www.qazaq-el*, жапалақ қар – large-flake snow (snow falling in large flakes);*

жылбысқа қар – wet melting snow;

көбік қар – soft melting snow that melts upon reaching the ground and forms a bubbly surface;

күпсек қар – powder snow;

күртік қар – hard-packed snow with a dense crust that gives way underfoot;

қиыршық қар – granular snow (coarse, grainy snow);

қырбық қар – fine powdery snow;

мұздақ қар – icy snow with a bluish, glazed, slippery surface;

омбы қар – deep dense snow through which even horses can barely move;

сонар қар – the first dense snowfall of the season*;*

сүрі қар – old settled snow that fell early and remained throughout the winter, accumulating dust and dirt;

сіреу қар – compacted aged snow that has lain for a long time and hinders the movement of pedestrians and vehicles;

ұлпа қар – light fluffy snow*;*

үйме қар – snowdrift or snow mound formed by a strong blizzard;

үрме қар – windblown drifting snow [195].

SOURCE SPHERE: PHYSICAL WORLD

Kazakh lexemes ЖАҢБЫР (rain), БҰРШАҚ (hail), ҚАР (snow) – precipitation

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Social and Verbal Life*

Sphere. Rain as generous outpouring

Жаңбыр as flow of words, congratulations, consolation

Regular direction of metaphorical transfer: *ЖАҢБЫР → GENEROUS OUTPOURING*

…жаңбырдай құйылған құттықтаудың астында мәз-мейрам болып… – to be glad under the rain of congratulations that pour down.

Бір өкініш сыздатып жан жүректі, ыстық бір сезімімді жаңбыр етті… – I made my warm feeling into a rain.

Бақытсызға бұршақ сеуіп… – to scatter hail on the unhappy person, as consolation and relief.

A distinct sphere is formed by the transfer of *жаңбыр* (and, less frequently, *бұршақ*) onto generous social outpouring – congratulations, words, feeling. *Жаңбырдай құйылған құттықтау* names the abundant congratulations that pour down on a fortunate person; *жаңбыр етті* names the act of turning a feeling into rain (i.e. of pouring it out generously). The unusual idiom *бақытсызға бұршақ сеуіп* reverses the typical evaluation: hail, normally a hostile precipitation, is here scattered as an act of consolation and relief, drawing on the feature of contact (touching the soul of the unhappy person) rather than impact.

English has the directly comparable expressions a shower of congratulations, a downpour of praise, to shower someone with gifts. The metaphor GENEROUS UTTERANCE IS RAIN is shared by both languages, with the Kazakh *бақытсызға бұршақ сеуіп* representing a culture-specific extension into the domain of consolation.

Motivating features: abundance, downward motion, multiplicity of small units, generosity, social warmth.

Subsphere: *Emotional life*

Sphere. The frozen brow – *қар* as anger

Қар қатқан қабақ – the frozen forehead of anger

Regular direction of metaphorical transfer: *ҚАР → FACIAL EXPRESSION / ANGER*

…жаздай қар қатқан қабағына тұңғыш рет жылу орнап… – for the first time in a long summer, warmth settled on his snow-frozen brow.

Қар қату is the frozen, hardened snow that forms after a heavy snowfall; *қабақ* is the protruding bone located between the eyebrow and the eye. Thus *қар қатқан қабақ* figuratively means to frown, to be angry – the brow described as a small frozen meteorological surface. The transfer is closely related to the Kazakh *мұз көз / қабағында мұз* of the lexeme *мұз*: in both cases, a facial micro-zone is described as a frozen surface that signals inner displeasure. The warming of the brow (*жылу орнау*) signals the dissolution of anger, in parallel to the *жібу* (melting) of the iced heart.

Motivating features: coldness, hardness, emotional rigidity, the frozen state transferred onto the facial micro-zone of the brow.

Subsphere: *Moral, spiritual and evaluative life*

Sphere. Abundance and divine blessing

Жаңбыр as golden rain – abundance and divine blessing

Regular direction of metaphorical transfer: *ЖАҢБЫР → ABUNDANCE / DIVINE BLESSING*

...Рахман нұр алтын жаңбыр құйылды, қаны, жаны, тәні, миы жуылды… – golden rain poured down.

...жаратылысты жаңартар Алланың алтын жаңбыры… – Allah's golden rain that renews creation.

...қара орманның тілегі төгіп алтын жаңбырлар… – golden rains pouring out as the prayer of the dark forest.

...Шапағатпен жауады жылы жаңбыр… – the warm rain that pours with grace.

In the Kazakh corpus, *жаңбыр* is figured first of all as a source of abundance and divine grace. *Алтын жаңбыр* – the golden rain – brings an increase in livestock, land fertility, and enrichment; it is the proverbial Kazakh prediction of the autumn rain that secures the winter pasture and, through it, the survival of the herd and the family. *Жылы жаңбыр* – the warm, blessed rain – names the rain that pours together with *шапағат (*grace). The image of the rain pouring like golden coins from the sky is one of the most positive metaphorical resources of the Kazakh meteorological lexicon.

Motivating features: abundance, fertility, generosity, life-giving force, divine grace, pastoral economy of the autumn rain.

Sphere. *Жасық қар* – moral judgement

The soft, valueless snow as the unreliable person

Regular metaphorical transfer: *ҚАР* → MORAL CHARACTER

...Ақмарал одырая қарап: Өй жасық қар, көзіне ақ түссін… – Akmaral stared: oh, soft snow, may the snow fall on your eye.

Adjective *жасық* denotes a wide spectrum of "soft, weak, unreliable" meanings: *еті жасық мал, көк жасық* is used of meat or food products that are barren and poor in fat; *жасық темір* is soft iron that is easily bent; *мінезі жасық адам* is the restless and indecisive character, unstable in himself.

In the invective construction …*Өй жасық қар, көзіңе ақ түссін,* the word snow is used to express disrespect for a person, conveying the wish for evil (the second clause is a curse – may a film fall on your eye). The transfer is based on the features of softness, instability and low value: the snow that does not keep its form becomes the figurative name for a person who does not keep his character.

The example is from the speech genre of invective (curse/insult), in which *жасық қар* is used as a vocative pejorativum, directly addressing the offending person. This pragmatic context sets the construction apart from neutral descriptive metaphor.

Incitement: soft, unstable, low value, moral disapproval, snow that doesn't hold its form. Intellectual and volitional life. Sphere. Subsphere. The impossible job, setting fire to snow…

Regular direction of metaphorical transfer: SNOW → THE IMPOSSIBLE

...қалауын тапса қар жандыратын әйел емеспіз бе?... – are we not the women who, if they want to, can set fire to the snow?

The Kazakh expression *қар жандыратын* – literally to set fire to the snow – names the doing of the impossible, the accomplishment of a difficult goal through skill and will. The transfer is built on the maximal physical contrast between snow (cold, wet, non-flammable) and fire (hot, dry, flammable): the source domain is the impossible physical action, the target domain is the human capacity to overcome impossible obstacles. The metaphor carries a positive evaluation: the person who can set fire to the snow is admired for their resourcefulness.

Motivating features: physical contrast (cold/hot, wet/dry), maximal difficulty, will against the elements, positive evaluation of skill.

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: Body fluids and somatic states

Sphere. Tears and sweat – the body's rain *Бұршақ* as rain, *жаңбыр* as tears

Normal direction of metaphorical transfer: *БҰРШАҚ / ЖАҢБЫР* → TEARS AND SWEAT

...бұршақ жауды көзімнен, аршымадым, бұршағын аршы көзімнің!...– hail fell from my eyes.

...Көзінен ып-ыстық жас бұршақтанып...– hot tears into hail... – sweat poured down in hail – we will shed tears like rain.

The metaphor is based on the resemblance of the falling drop to the round, heavy tear, while *бұршақ* is the rounded form of a cry, and *жаңбыр* is the tears of the body. *Бұршақ көз* – hail eye – is the name of the eye that weeps endlessly.

Бұршақтанып тер ақты – sweat turning into hail – denotes the heavy sweat of effort or fear.

The source domain ICE-DROPS / RAIN-DROPS is identified on the basis of physical shape and movement of falling. The common picture of falling rounded particles. The source domain is mapped onto the target domain.

Motivating features: round shape, downward motion, plenty, body as origin of falling liquid.

MACROSPHERE: PHYSICAL WORLD → OBJECT

Subsphere: *Military projectiles*

Sphere. Hail as projectiles – the military image

Бұршақ as bullets and shot

Regular direction of metaphorical transfer: *БҰРШАҚ → MILITARY PROJECTILES*

...оның оқты бұршақтатып отырған пулеметі бір сәтте сылқ етіп... – the machine-gun that was pouring out bullets like hail.

Бұршақ also takes on the form of bullets in the military image *оқ жаудыру / оқ бұршақтату* – the pouring out of bullets like hail. The transfer rests on the same physical features that motivate the transfer to tears – rounded form, falling motion, density of impact – but the target domain is no longer the body's bodily fluids but the projectiles of combat. The same source domain ICE-DROPS / FALLING ROUNDED OBJECTS thus generates two target domains depending on the direction

of motion: when the rounded objects fall downward from the body, they are tears or sweat; when they fly outward from a weapon, they are bullets.

English has the directly comparable expressions a hail of bullets, a hail of stones, a hail of arrows, a hail of criticism. The metaphor BULLETS ARE HAIL is one of the clearest cross-linguistic equivalences in the present material and represents a productive regular correspondence in both languages.

Motivating features: rounded form, density of impact, simultaneity of falling, hostile force.

Personification – Reverse transfer: ANIMATE BEING → PHYSICAL WORLD (the rain endowed with life)

Subsphere: *The rain as animate agent*

Sphere. The rain as an animate agent

Жаңбыр as a living being that strikes, washes, gnaws

Regular direction of metaphorical transfer: *ЖАҢБЫР → LIVING BEING / PERSONIFICATION*

...дабыл ұрғандай, жаңбыр шатырды төпелей ұрып тұр… – the rain beats on the roof like a drum.

...ұрды жаңбыр әйнекті; жүрек тулап, ақты ағын… – the rain knocked at the window.

...өткінші жаңбыр ізін шайып кетіпті… – the passing rain washed away the traces.

...жаңбыр мүжіген қам кірпіштердің әрқайсысы… – the bricks that the rain has gnawed.

The Kazakh *жаңбыр* is endowed with the actions of a living being: it strikes (*ұрды*, *төпелей ұрып*), washes (*шайып кетті*), gnaws (*мүжіген*), and pours (*құйылған*).

The verb *мүжу* has two senses – to gnaw the bone clean of meat, and the destruction of natural objects under the influence of wind and water; in combination with *жаңбыр*, the second sense is realized, said of objects that have been left in the rain and have changed shape under its action.

Motivating features: agentive action, physical impact, continuous activity, the rain as a quasi-living presence.

The metaphorization of the lexemes *жаңбыр, қар, and бұршақ* in Kazakh demonstrates a richly differentiated network of figurative transfers extending from the meteorological domain to human, social, military, and moral domains.

Total directions of metaphorical transfer (main analysis): 8. Total regular metaphorical transfers identified: 8. Total spheres of target representation: 8.

The relation between Sirius and the autumn rain is indexical (sign-based, temporally correlated) and metonymic, not metaphorical; there is no cross-domain target representation in which RAIN is the source and another abstract concept is the target.

...Сүмбіле жаңбыры жүріп өткен жердің кәдесінің түбі көк, малға от болады деп, жылқыны қыста сол жерге тебіндеткен… – where the rain of

Sirius has passed, the grass at the root will be green, and the horses will be left there for the winter.

Сүмбіле is the Kazakh name of Sirius, the bright star that appears in late August or early September. *Сүмбіле жаңбыры* names the autumn rain that coincides temporally with the rising of Sirius. In Kazakh traditional ecological knowledge, this rain is the predictor of abundant winter pasture: where the autumn rain has fallen, the grass will be dense enough to support the herd through the winter. The relation between Sirius, the rain, and the future pasture is an indexical chain (one phenomenon is a sign of the next) rather than a metaphorical transfer.

...астың мұз, үстіңнен ақ жаңбыр арылмайды деп... – the white rain will not let go.

...қара жаңбыр әлі де құйып ау тұр... – the black rain is still pouring.

...аспаннан әлдебір тас жаңбыр жауғандай шашырай қағылған... – as if a stone rain had fallen from the sky.

The colour-marked rains form a chromatic system of meteorological nomination, and they belong to the long, uninterrupted Kazakh tradition of colour symbolism that runs through poetry, ornament, textile, and oral epic. *Ақ жаңбыр* (white rain): in metaphorical use, *ақ* functions not as a colour but as a verb of continuous downward motion (*ақ* – "to flow non-stop"); *ақ жаңбыр* in Kazakh consciousness is a sheeted, continuous rain. The same *ақ* that names the sheeted continuous rain names the felt of the white yurt and the dairy products of the dastarkhan. *Қара жаңбыр* (black rain) reinforces the meaning of heavy, torrential rain through the negative-amplifying connotation of *қара* (which in Kazakh forms the meaning "very strong, to the highest degree", as in *қара қыс* – the coldest winter, *қара жел* – the strongest wind); the same *қара* that names the heavy torrential rain names the longest winter, the deepest autumn, and the strongest wind.

*Тас жаңбыр (*literally stone rain) names the same intense fall through the imagery of solid material. *Алтын* is the maximal positive evaluation, the wealth of livestock, the divine grace – note that *алтын жаңбыр* was admitted as a productive metaphor on different grounds: it carries an active metaphorical transfer onto the target domain WEALTH AND DIVINE BLESSING, beyond the descriptive function of the other colour-marked rains. Each colour is a fragment of the national picture of the world, and the rain, as a colour-marked phenomenon, becomes one of the most expressive instruments of the Kazakh linguistic worldview.

The descriptive colour-marked rains (*ақ, қара, тас)* function as terminological-evaluative nominations and belong to the same typological group as the colour-marked winds (*қара жел, қызыл жел, қоңыр жел, сары жел),* the colour-marked frosts (*қара суық, сары аяз, қызыл шұнақ аяз, қоңыр суық),* and the colour-marked ice (*ақ қар, көк мұз)* considered in the previous Kazakh chapters. Associative-experimental data on the colour-culture concept *қоңыр* similarly show how colour terms anchor nature- and tradition-related values in the Kazakh linguistic worldview [214].

Kazakh *жаңбыр* and *қар* are not used as standalone verbs; they need a predicate. The verbal energy of the precipitation is reflected in fixed combinations of the noun with auxiliary verbs and predicative constructions: *жаңбыр жауды (*the rain has fallen), *жаңбыр мүжіген (*the rain has gnawed), *жаңбыр шайып кетті (*the rain has washed away), *жаңбыр шатырды ұрып (*the rain hits the roof), *бұршақ жауды (*hail has fallen), *бұршақтанып (*turning into hail), *қар қатты (*the snow has frozen), *қар жандыратын (*the one who can set fire to the snow).

In each of these constructions the precipitation is given the role of an undercover agent acting through the verb while the noun is left with its full lexical weight. The difference with English is grammatical-figurative: while English it rains encodes the meteorological event in the verb itself (procedurality prevails), Kazakh keeps the precipitation as a substantive force that needs its own predicate (staticity prevails).

In Kazakh linguoculture a person caught in the rain is called *жаңбырдың астында (*under the rain), and the precipitation is vertically above the human. In English, in contrast, one walks in the rain, entering the precipitation as if in a medium. The asymmetry in the use of the prepositions mirrors the more general spatial representation of the rain as a strike from above (Kazakh) versus as an encompassing medium (English).

Жаңбыр dominates the abundance and divine blessing register (*алтын жаңбыр, жылы жаңбыр, шапағатпен жауады жылы жаңбыр, жаңбырдай құйылған құттықтау).* The bodily and military register concentrates on the term *бұршақ (бұршақ көз, бұршақтап тер, оқ бұршақтату).* The moral-evaluative and astronomical-cyclical register is reserved for the term *қар (қар қатқан қабақ, жасық қар, қар жандыратын, Сүмбіле жаңбыры).*

The metaphor *алтын жаңбыр,* the golden rain that brings the increase of livestock and the fertility of the land, belongs to the deep agrarian stratum of the Kazakh language, where the falling of rain is not a meteorological event, but the arrival of wealth itself.

The figurative reading of long autumn rains as a sign of abundant winter pasture – the figurative correlation that gave rise to the indexical name *Сүмбіле жаңбыры* –summarizes the entire pastoral economy of the Kazakh steppe in a single celestial-meteorological pairing. Autumn rain meant good winter pasture; good winter pasture meant a herd that lived; a herd that lived meant a family that lived through the cold months. The metaphor bears in ordinary speech the whole reckoning of a pastoral economy.

The Kazakh *бұршақ,* in the standard image of falling round particles, enters the body. Hail is how tears, sweat and bullets are all visualized. This is one of the most productive figurative images of the Kazakh language and an obvious example of the way one source domain (rounded falling objects) produces multiple target domains through slight re-direction of the motion vector – downwards from eye (tears), downwards from skin (sweat) or outwards from weapon (bullets). The form and motion are the unifying factors, not the matter.

In Kazakh, the vocabulary for snow is the most differentiated meteorological lexicon. *Жапалақ қар, ақша қар, ұлпа қар, көбік қар, күпсек қар, күртік қар, қиыршық қар, қырбық қар, мұздақ қар, омбы қар, сонар қар, сүрі қар, сіреу қар, үрме қар, үйме қар* (snow crust, snow dough, snow felt, snow foam, snow grit, snow grits, snow gravel, snow hoarfrost, snow ice, snow pack, snow powder, snow slush, snow spray, snow sugar, snow surface crust – more than fifteen kinds of snow are distinguished according to texture, density, age, surface condition and behavior underfoot. The winter season of hunting begins with sonar qar when the tracks of the prey are most visible. *Омбы қар* is snow hard enough to ride a horse on. Such density is the product of a people for whom the state of the winter snow was a matter of life and death: the snow that still allowed the cattle to graze, the snow that buried the pastures and starved the herd, the snow that blocked the roads. The Kazakh snow lexicon is the vocabulary of a people whose lives depended on reading winter correctly.

3.3 "Electrical and sound phenomena" in a metaphorical sense

Найзағай – strong electric sparks that occur during a storm from thunderstorm or heavy rain clouds, *күркір* – a loud echo sound that occurs when lightning flashes on thunder-cloud days.

найзағайдай жарқ – жарқ ету – to shine like lightning, *найзағайдай жарқ-жарқ ойнау* – to play like lightning, *найзағайдай күркіреу* – to rattle like thunder. *найзағайдай қиып түсу* – to cut like lightning [195].

Найзағай – strong electric sparks that occur during a storm from thunderstorm or heavy rain clouds; *күркір* – a loud echo sound that occurs when lightning flashes on thunder-cloud days. The combinatorial inventory of the lexeme *найзағай* in Kazakh is exceptionally rich: *найзағайдай жарқ-жарқ ету (to shine like lightning), найзағайдай жарқ-жарқ ойнау (to play like lightning), найзағайдай күркіреу (to rattle like thunder), найзағайдай қиып түсу (to cut like lightning), найзағай отын шашу, найзағай оты өшу, найзағай ойнау, найзағай атып, найзағай түсу, найзағайдай тіліп, шатырлаған найзағай, найзағай оғы, найзағай атқандай, найзағайдай мінез.*

The Kazakh *найзағай* is itself etymologically a metaphorical compound: *найза* means "spear, lance" – the principal long-distance weapon of the Kazakh warrior – combined with the augmentative-evaluative suffix *-ғай*. The lexeme thus already encodes the source-to-target transfer LIGHTNING IS A SPEAR HURLED FROM THE SKY at the level of word formation itself. The military and martial productivity observed in the analysis below is therefore not a free extension but the unfolding of a metaphor inscribed in the lexeme from the outset.

SOURCE SPHERE: PHYSICAL WORLD

Kazakh lexeme НАЙЗАҒАЙ (lightning / thunderstorm, lit. "sky-spear") – natural phenomenon

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Emotional life*

Sphere. Sudden passion

Асау сезім найзағай болып соққан – the feeling that strikes like lightning

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → EMOTION / PASSION*

…найзағайдай жарқ еткен сезім – pushing aside the feeling that had just flared up like lightning, he bowed and said

…асау сезім найзағай болып соққан… – the wild feeling struck like lightning.

The word *асау* means untamed, unbroken, wild, restive – used most often in the description of horses (*жүген-құрық тимеген, үйретілмеген, тарпаң, бас білгі емес*). *Сезім* is the feeling, the inner state that has appeared as the result of an external influence. Combined, *асау сезім* is used figuratively and means raging, untamed feelings; when the construction *найзағай болып соққан* is added, the raging feelings receive the meaning of a lightning strike. The transfer rests on the suddenness, intensity, and uncontrollability of both the meteorological phenomenon and the emotional event: a strong passion arrives without warning, strikes the heart, and leaves the person changed.

Motivating features: suddenness, intensity, uncontrollability, irreversible impact, the heart as the target of the strike.

Sphere. The glow of feeling on the face

Найзағай жарқылдары – lightning in the eyes

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → FACE / VISIBLE EMOTION*

…Сезім тұр тасығалы, жанардағы найзағай жарқылдарын кірпіктер жасырады… – the feeling is overflowing, the eyelashes hide the lightning flashes in the eyes.

…қанша шұқшиса да екі көзден найзағайдай жалтылдаған көктің отынан басқаны көре алған жоқ… – however much he looked, he could see only the heavenly fire flashing like lightning from the two eyes.

Найзағай жарқылдары is the visible light of lightning: the flashes that run across the face, the eyes that suddenly glow, the feelings that appear on the face in an instant. The human face becomes a small sky in which the storm of inner life flashes and rumbles. The motivating feature is brightness: the visibility of feeling on the human face is described through the visibility of lightning in the night sky. The eyelashes hiding the flashes *(кірпіктер жасырады)* extends the image into a small drama of concealment – the person tries to hide the storm of emotion behind the protective fabric of the eyelashes.

Motivating features: brightness, visibility, sudden appearance, the face as a sky, the eyes as the source of flashing light.

Subsphere: *Character and temperament*

Sphere. The changeable temperament

Найзағайдай мінез – the lightning-like character

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → CHARACTER / TEMPERAMENT*

...Жұрт мені қатал дейді найзағайдай мінезі шатырлаған… – people say I am hard, like lightning is my temper flash.

The lightning in the construction *найзағайдай мінез* shows the character of a person who is subject to quick change of mood, making hasty decisions. The verb *шатырлау* is formed from the imitative root *шатыр-шұтыр*, meaning the crackling sound of the storm, and so *найзағайдай мінезі шатырлаған* literally means a temperament that rattles and crackles like a lightning strike. The metaphor conjures up the qualities of unpredictability, suddenness and sound – a person of strong will erupts like a thunderstorm in sound and sight without warning.

Motivating features: changeability, suddenness, audible force, unpredictability, the storm as the inner sound of the person.

MACROSPHERE: PHYSICAL WORLD → OBJECT

Subsphere: *Instrument and blade*

Sphere. The cutting blade

Найзағайдай тіліп – the night cut by lightning

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → CUTTING INSTRUMENT*

...сол ауыр түнді найзағайдай тіліп, әйел әні аспанға өрлеп бара жатқандай… – as if the woman's song, cutting the heavy night like lightning, was rising to the sky.

The verb *тілу* means to cut with a sharp blade, to slice through a soft surface. In the construction *түнді найзағайдай тіліп*, the lightning literally cuts or stripes the night sky, on the basis of the features sharpness and the ability to break through a thick layer of darkness. The double transfer is striking: the night is read as a soft fabric, and the lightning as the blade that slices through it. The same image is extended to the woman's song that rises to the sky like a cutting brilliance.

Motivating features: sharpness, vertical motion, the ability to break through a dense surface, the night as a cuttable fabric.

Subsphere: *Military projectiles*

Sphere. Weapon and projectile

Найзағай оғы – the lightning bullet

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → MILITARY DOMAIN*

...найзағай атқандай алда жарқ-жұрқ, тарс-тұрс етіп жарылған снарядтар… – ahead, the shells exploded with flashes and cracks, as if lightning were shooting.

...самолеттердің ойранының түтіні ақ басылмай ізбе-із алыстан күн күркіреп, найзағай атқандай қатты сарын естіледі… – the smoke of the planes does not subside, the thunder rolls from afar, as if the lightning is shooting.

...сұмдық оқтың көрмейміз жолақтарын, от боп ойнап найзағай оқ атқанын… – we do not see the streaks of the terrible bullets, the lightning playing like fire and firing bullets.

In the Kazakh military image, *оқ* is the bullet – the round or oval lead shot from a weapon. *Найзағай оғы*, the lightning bullet, the visible light and the audible

crack accompanying the strike of lightning. The relation of the strike of lightning is transferred onto the projectile of combat.

The transfer structure is figurative and bidirectional: lightning is read as a celestial weapon (reminding of the etymological reading of *найзағай* as "sky-spear"), and the human weapon of war is read through the imagery of the storm. Bombs and exploding shells are likened to lightning flashes accompanied by loud sounds. The visual and auditory similarities between lightning and gunfire emphasize the metaphorical transfer.

Motivating features: speed of impact, flash and sound together, destructive force, accuracy of strike, the celestial weapon and the human weapon as parallel images.

MACROSPHERE: PHYSICAL WORLD → ABSTRACTION

Subsphere: *Time and duration (the momentary)*

Sphere. The instantaneous flash

Найзағай as a momentary brilliance

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → MOMENTARY VISUAL EVENT*

…жарқ-жұрқ етіп найзағай атып… – the lightning shoots out with a flash.

…қас-қағымда найзағай сөнді… – in the blink of an eye, the lightning went out.

…найзағайдың отындай сол бір қас қағым сәтте жарқ етті ғайып болды… – for an instant, like the fire of lightning, it flashed and vanished.

In the Kazakh corpus *найзағай* is perceived mainly as a bright flash of light that appears and disappears in the sky in an instant.

The transfer according to the features of momentariness, brilliance and short duration is metaphoric. The verb *ат (*to shoot) literally means to fire a bullet from a weapon; in combination with *найзағай* the construction *найзағай атып* conveys the flash of lightning that, like a shot, appears and disappears in an instant. The metaphor is built on the feature of attracting attention: a bright flash forces the gaze, surprises, amazes.

Motivating features: Instantaneous manifestation, brilliance, short duration, ability to draw attention.

Subsphere: Manner and degree (extraordinary speed)

Sphere. Extraordinary speed

Найзағайлар ұшады табанынан – the spark of the racehorse

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → EXTRAORDINARY SPEED*

…Тайбурылдың осынау шаққа дейін, найзағайлар ұшады табанынан… – until Taiburil reached this point, lightning flew from his hooves.

…Оның ойынша: Мәди қиырдан қиырға құлаш ұрып жүйткитін найзағай секілді жан екен… – in his view, Madi was like a lightning that races from one edge to the other.

In the case of Taiburil – the legendary horse of the Kazakh epic – the word *найзағай* is used instead of the spark coming from a horse's hoof. The transfer of

the flight to the racehorse depends on the maximum velocity of the latter. The flight of the spark from the hoof becomes the flight of lightning itself, and the gallop reads as the speed of the storm. In this case the transfer is from the source domain LIGHTNING (with the feature of maximal velocity) to the target domain HUMAN OR ANIMAL MOVEMENT, invoking a speed so great that it can only be measured against the celestial phenomenon. The same model is applied to the human being who moves far and fast: *Мәди найзағай секілді жан* – Madi is a lightning-like person.

Motivating features: maximum speed, vertical or diagonal trajectory, the spark of contact, the unstoppable movement of the epic horse and the warrior.

Subsphere: *Sudden event and misfortune*

Sphere. Sudden misfortune

Direction of regular metaphorical transfer: *НАЙЗАҒАЙ* → UNEXPECTED MISFORTUNE

…қара бұлт қаптаса да аспан, айды, түссе де найзағайдай басқа қайғы… – even when the sky is covered with dark clouds and the moon, even when sadness, like lightning, falls on the head…

The construction *найзағайдай басқа қайғы* – sadness that strikes the head like lightning – names the sudden blow of misfortune. The transfer is based on three common characteristics between the meteorological phenomenon and the event of grief: the vertical movement (the strike from the top), the abruptness (there is no warning) and the inevitability (the lightning chooses its target, the misfortune chooses its victim).

The metaphor is unlike the military transfer of the fired bullet: the bullet is fired by a human enemy, but the misfortune comes from an impersonal sky. The metaphorical transfer maintains this asymmetry by stressing the verticality and impersonality of the blow.

Motivating features: vertical trajectory from above, suddenness, impossibility of avoidance, impersonal selection, irreversibility of impact.

Personification – Reverse Transfer: ANIMATE BEING → PHYSICAL WORLD (the lightning endowed with life)

Subsphere: *The Lightning as Animate Agent*

Sphere. The lightning as an animate agent

Найзағай ойнау, найзағай ізден табу – lightning as a living being

Regular direction of metaphorical transfer: *НАЙЗАҒАЙ → LIVING BEING / PERSONIFICATION*

…бұлт жөңкіп, найзағай ойнап, нөсер шайып еткен аспанға не жетсін… – what could be better than a sky where the clouds gather, the lightning plays, and the downpour washes.

…қасқиып тұрған жалғызды, найзағай ізден табады… – the lightning seeks out and finds the lonely person who stands tall.

…төбеңізге аспанның найзағайы түссе де мейлі… – even if the lightning of the sky falls on your head.

The verb *ойнау* (to play, to have fun) is an action proper to something alive; *найзағай ойнау* names the flashing of lightning as a kind of playful activity. The construction *найзағай ізден табады* – the lightning searches and finds – assigns to the meteorological phenomenon both the agency of intention (searching) and the agency of selection (finding the lonely person). And the verb *түсу* (to fall) preserves the animate trajectory of an arrow or spear hurled by a hand.

Motivating features: agentive action, intentional selection, playful unpredictability, the meteorological phenomenon as a quasi-living presence.

The metaphorization of the lexeme *найзағай* in Kazakh reflects a highly differentiated network of nine figurative transfers from the meteorological domain to the domains of perception, instrumental action, animate agency, movement, emotion, facial expression, character, military force, and fate. The structural completion of the lexicon is striking: the etymologically inscribed transfer LIGHTNING IS A SPEAR HURLED FROM THE SKY extends over the figurative frame of the Kazakh equestrian and warrior culture, where the racehorse, the warrior, the suddenly burning heart and the celestial weapon have the same set of features – speed, brilliance, suddenness and decisive impact.

Total directions of metaphorical transfer (main analysis): 9. Total regular metaphorical transfers identified: 9. Total spheres of target representation: 9.

When *шатырлаған* is used to describe the literal crackling sound of an actual storm, the construction is onomatopoeic-imitative and remains within the basic meaning of *найзағай.*

…оғын ата шатырлаған найзағай өршелене… – the crackling lightning, persistently shooting its arrows.

The verb *шатырлау* is formed from the imitative root *шатыр-шұтыр* denoting a crackling-clattering sound; *шатырлаған найзағай* is the crackling lightning. When used to describe an actual storm with audible crackling, the construction is descriptive-imitative rather than metaphorical. It is admitted into the main analysis only in the construction *найзағайдай мінезі шатырлаған*, where the crackling is transferred onto a human temperament – that is, where the cross-domain transfer is active.

Күн күркіреу (thunder) is a lexically and semantically distinct meteorological phenomenon – the acoustic event accompanying lightning rather than the lightning itself. Its metaphorical productivity requires a separate study and is not subsumed under the analysis of *найзағай.*

…күн күркіреп, найзағай атқандай… – as if the sky is thundering and the lightning is shooting.

In the Kazakh meteorological lexicon, *найзағай* (lightning) and *күн күркіреу / күркір* (thunder) are paired but distinct phenomena: *найзағай* belongs to the visual register (the flash), while *күн күркіреу* belongs to the auditory register (the rumble). Where the two appear together in a single construction, *найзағай* carries the metaphorical load and *күн күркіреу* functions as a co-occurring descriptive element. The independent metaphorical productivity of *күркір* in Kazakh (e.g. the booming voice, the rumbling personality).

In contexts where the speaker invokes the folk belief that lightning seeks out specific persons (the lonely, the guilty, the proud), the construction *найзағай ізден табады* may operate within a literal – though magico-religious – framework rather than as productive cross-domain metaphor. The Kazakh folk belief that the lightning seeks out and finds the lonely or proud person – the figure who stands tall (*қасқиып тұрған жалғыз*) – gives the construction a possible non-metaphorical reading in religious-folkloric contexts. The belief is the linguistic memory of a population that lived in the open landscape, where the standing figure on the horizon was the natural target of the storm: the metaphor of the personified lightning that chooses its victim is thus rooted in the practical experience of the Kazakh shepherd and the steppe traveller, for whom the storm was a force with a will of its own. In contemporary literary use, however, the construction is typically employed metaphorically as an animate-agent personification, and the folk-belief substrate functions as a deepening of the personification rather than as its replacement. The same construction was admitted to the personification analysis where the literal folk-belief reading is absent and the animate-agent metaphor is active.

The verbal energy of lightning is realized through fixed combinations of the noun with auxiliary verbs and predicative constructions: *найзағай ойнау* (to play), *найзағай ату* (to shoot), *найзағай түсу* (to fall), *найзағайдай тіліп* (cutting like lightning), *найзағайдай күркіреу* (to rattle like lightning), *найзағай оты шашу* (to scatter the fire), *шатырлаған найзағай* (the crackling lightning). Each of these constructions assigns to lightning the role of a hidden agent acting through the verb, while the noun retains its full lexical weight. The Kazakh speaker, in this sense, does not let *найзағай* dissolve into a verb; the lightning remains, grammatically and semantically, a substantive force.

The lexeme is distributed across collocations that name visual and acoustic perception (*жарқ-жұрқ, шатырлаған, найзағай ойнау*), speed and emotion (*асау сезім найзағай болып, найзағай жарқылдары жанарда, найзағайдай мінез*), and military force (*найзағай оғы, найзағай атқандай*). The middle group – lightning as the speed of the racehorse and as the flare of feeling – accounts for a significant portion of the non-equivalent material in the corpus, that is, the metaphors that have no direct lexical correspondence outside the Kazakh-Turkic linguistic area.

The metaphor *найзағайлар ұшады табанынан*, in which lightning rises from the hooves of the legendary Taiburil, belongs to the deep epic stratum of the Kazakh language, in which the racehorse is the central organizing figure. The lightning of the sky and the spark of the gallop are joined by the same figurative frame; the warrior on the racehorse is the figure on whose hoof the very physics of the storm appears to be reproduced.

The Kazakh meteorological imagination of *lightning* is, in this sense, hidden inside the metaphor of the horse: the lightning of the sky and the lightning of the gallop belong to the same figurative frame, sharing the motivating features of speed, brilliance, and sudden manifestation. The Kazakh meteorological metaphor of electrical phenomena is, in a strong and historically defensible sense, the

imagination of an equestrian and heroic culture, and the lexicon carries the memory of that worldview forward into the speech of the modern Kazakh.

The very etymology of the lexeme – *найза* (spear) + *-ғай* – anchors *найзағай* in the martial vocabulary of the Kazakh language from the outset. The metaphors *найзағай оғы* (the lightning bullet), *найзағай атқандай* (as if lightning is shooting), and *найзағайдай мінез* (the lightning-like character) belong to the long martial vocabulary in which the suddenness, accuracy, and destructive power of lightning are read as the qualities of the warrior. The shells that explode like the flashes of lightning, the misfortune that descends on the head like a bolt, and the strong-willed person whose temperament rattles and crackles – all of these belong to the same image of the world, in which the warrior, the storm, and the firearm share a single set of features: speed, brilliance, decisive impact, and the verticality of attack from above.

The metaphors *асау сезім найзағай болып соққан* (the wild feeling that struck like lightning) and *найзағай жарқылдары* in the eyes belong to the lyrical stratum of Kazakh poetry and prose, in which the human face is read as a sky in which the storm flashes and rumbles. The lightning that runs across the face, the eyes that glow with the light of *найзағай,* and the suddenly burning love that strikes – these are the everyday metaphors of the Kazakh emotional life, transmitted through poetry, song, and prose. The face is represented as a small sky, the eyes as the source of celestial fire, and the feeling itself as the storm that breaks out and is then hidden behind the eyelashes.

3.4 “Temperature” imagery in a metaphorical sense

We now turn to the group of temperature phenomena, as a directly and constantly experienced bodily sensation, temperature serves as a highly productive source domain, projecting onto human emotional, social, and moral states.

We analyzed in detail such phrases with *ayaz (frost)*, as *сары аяз*, *сақылдаған сары аяз*...literal translation: crackling yellow frost means keen frost, hard frost;.

Verb metaphors with *аяз* were extracted from the online dictionary:

аяз қысты → trans. frost squeezed, tightened, – he was very cold;

қызыл шұнақ аяз → trans. red frost, red limb in frost – severe frost;

сақылдаған аяз → trans. crackling frost – severe frost the coldest period in winter, *сақылдаған сары аяз* – crackling frost, creaking, severe cold.

аяздай батты (қысты, қарыды) squeezed as a frost (freeze), to be very *cold/freezed – аяздай батты қыспаққа алды, жан қинады* – literally, harmed, wounded [195].

We have found an equivalent *black frost*, synonym for Kazakh *қара суық* with *frost /аяз*, the system classification looks like this, *аязата, аязшал, ақ аяз, аяз қару, аяз қысу, аяз сору, аяз сүю, көк аяз, құрғақ аяз, аяз сыну, шұнақ аяз, қытымыр аяз, сақылдаған аяз, сары аяз, тымырсық аяз, үскірік аяз, шымшыма аяз, шыңылтыр аяз, аяз-боран* [195].

Here these units that mean long severe time in winter or the coldest time of a winter season. *Саршұнақ аяз – сары шұнақ (ұзаққа созылған суық) – ақ қар көк*

мұз (white snow blue ice) – *қыстың көзі қырауда* (look of a snow at a frost).

Frost/аяз gave 38 entries, 13 documents from which were selected only metaphorical representations of frost.

SOURCE SPHERE: PHYSICAL WORLD

Kazakh lexemes АЯЗ (frost), СУЫҚ (cold), ЫЗҒАР (frostiness)

Macrosphere: PHYSICAL WORLD → PSYCHIC WORLD

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

Subsphere: *Emotional life*

Sphere. Cold as fear and emotional alarm

Суық үрей, суық сезім – the cold of dread

Regular direction of metaphorical transfer: *СУЫҚ → EMOTIONAL STATE (FEAR)*

…суық үрей бойын алған жау – cold fear seized the body.

…бір суық сезім жүрегіне шауып шошып қалды – a cold feeling galloped to his heart and frightened him.

…суық хабар әкелген – they brought cold news (bad news of death or tragedy).

Where *суық* is applied to the inner life of the person, it names the cold feeling that grips the heart in moments of fear, foreboding, and bad anticipation. The motivating mechanism is the physiological correlate of fear: emotions of fear or shock can cause blood vessel spasm; the blood supplies tissues poorly; and this gives rise to the physical sensation of cold. *Суық сезім* – the cold feeling – names this somatic event in its emotional dimension; *суық үрей* – the cold fear – names it in its existential dimension; and *суық хабар* – the cold news – names the verbal trigger that produces the same somatic response in the recipient. The news of a death or tragedy is described as cold because it produces in the body the very sensation of cold: the spasm, the shiver, the temporary loss of warmth. *Суық хабар* is here treated as a subdomain of the same metaphorical transfer rather than as a separate sphere: the underlying transfer is identical, and the trigger (utterance) differs only in being verbal rather than situational.

Motivating features: physiological spasm, somatic shock, body's response to fear or bad news, the place where cold settles, the heart.

Subsphere: Social and verbal life (verbal injury and harmful other)

Sphere. The cold word as verbal violence

Суық сөз – unkind word that hurts

Direction of metaphorical transfer: *СУЫҚ* → SPEECH / VERBAL INJURY

…суық сөзі естілмейді – not heard cold words from him.

The construction *суық сөз* (cold word) means the unpleasant, offensive or sorrowful word, the speech that wounds the addressee. This direction is characterized by its target, which distinguishes it from the fear register. While *суық сезім / суық үрей* names the inner state of fear, *суық сөз* names the verbal act and its wounding effect. The transfer depends on the lack of warmth in the social interchange of speech: where a warm word is the sign of intimacy and welcome, the cold word marks the speaker's refusal of social warmth. The motivating feature is verbal injury

by withdrawal of social warmth, and the metaphor is part of the broader Kazakh complex of social-thermal evaluation developed below.

Motivating features: verbal injury, denial of social warmth, the word as a thermal object, the listener as the patient of the cold speech act.

Sphere. The cold hand of the thief and the unfortunate touch

Суық қол, суық көз – the alien and the envious

Regular direction of metaphorical transfer: *СУЫҚ → ALIEN / HARMFUL OTHER*

…іргеден суық қол кіріп келді – a cold hand entered from the threshold (the thief).

…суық көз – the cold eye (the envious or evil look).

In a register distinct from the somatic and the characterological, *суық* enters the social vocabulary of the harmful other. *Суық қол* – the cold hand – names not the temperature of the skin but the unfortunate touch, the hand that brings bad luck to whatever it holds; in everyday Kazakh, the same expression names the thief, the figure who enters the household uninvited. *Суық көз* – the cold eye – names the envious or evil look that brings misfortune to its object. The transfer rests on the alienness of the cold: in the warm circle of the family, the hearth, and the felt walls of the yurt, the cold is the marker of what does not belong. The hand, the eye, or the word that is described as cold is exiled from the central warmth of the family circle and bears the trace of malicious or alien intention.

Motivating features: alienness, transgression of the household boundary, malicious intention, the cold as the marker of what does not belong to the warm centre.

Subsphere: *Moral life and character*

Sphere. Cold as character and moral evaluation

Түсі суық, суық жігіт, суық жүріс – the cold person

Regular direction of metaphorical transfer: *СУЫҚ → CHARACTER / MORAL JUDGMENT*

…түсі суық дүниеге шошына қарадың – you looked with fear at the cold-faced world.

…суық сынмен қараған жоқ-ты – he did not look with cold criticism.

…бұл суық жүріс – this cold conduct.

…салқын көңіл суық жігіт – the calm-hearted cold guy.

The Kazakh *суық* is one of the central instruments of moral and characterological evaluation. *Түсі суық* – the cold appearance – names the stern, fierce, frightening face of the warrior, with its full register of meanings: *ызғарлы, айбынды, жүзі қорқынышты*, *жан түршігерлік, реңі үрейлі*. *Суық дүние*, the cold world, names the severe and cruel world; *суық сын*, the cold critique, names the hard probing gaze of the critic; *суық жүріс* names the conduct of the person who believes only in himself, who is reserved and distrustful of his own actions; *суық жігіт* names the calm, restrained, emotionally disciplined young man. Crucially, the same temperature image, in different contexts, names both the negative trait of cruelty and the positive trait of self-possession: the warrior whose face is cold

frightens the enemy, while the young man whose conduct is cold is the disciplined, restrained, self-possessed figure who does not yield to passion. The Kazakh moral imagination thus reads cold ambivalently, as both danger and discipline.

Motivating features: restraint, severity, emotional control, distance, inner discipline, the dual evaluation (negative cruelty / positive self-possession).

Subsphere: *Aesthetic life*

Sphere. Cold as sublime aesthetic value

Суық, ызғарлы сұлулық – the cold beauty

Regular direction of metaphorical transfer: *СУЫҚ → AESTHETIC EVALUATION (COLD BEAUTY)*

…суық, ызғарлы сұлулығымен тек ертегілерде ғана кездесетіндей – with such cold, frosty beauty as is found only in fairy tales.

The construction *суық, ызғарлы сұлулық* – the cold, frosty beauty – preserves a positive aesthetic value: the beauty that exists in fairy tales, the beauty without warmth that is admired precisely because it does not yield to ordinary feeling. The transfer is built on the features of distance, brilliance, sublimity, and emotional inaccessibility. The same temperature image that elsewhere names cruelty here names the sublime – the beauty that compels admiration precisely because it stands apart from human warmth. This sphere thus completes the moral-aesthetic spectrum of *суық*, with severity at the negative pole, self-possession at the neutral-positive pole, and sublime beauty at the aesthetic pole.

Motivating features: distance, brilliance, sublimity, emotional inaccessibility, aesthetic distance, fairy-tale unreality.

Macrosphere: PHYSICAL WORLD → HUMAN

MACROSPHERE: PHYSICAL WORLD → HUMAN

Subsphere: *Physical force and bodily states*

Sphere. Frost as physical force on the body

Аяз as a squeezing, biting, burning agent

Regular direction of metaphorical transfer: *АЯЗ → PHYSICAL ACTION ON BODY*

…аяз қысты – frost squeezed, tightened; he was very cold.

…сүйектен өтіп бара жатқан үскірік аяз жанын қоярға жер таптырмай қос жұдырықпен… – the piercing frost goes through the bones, punches with two fists, leaves no place of rest.

…аяздай батты – sank in like frost.

In the Kazakh corpus*, аяз* is figured first of all as a physical force acting upon the human body. It squeezes (*қысты*), punches (*қос жұдырықпен*), pierces (*сүйектен өтіп*), sinks in (*батты*), and leaves the body no place of rest. The metaphorical transfer is built on the natural property of cold at low air temperature: objects tend to shrink and contract in size, and the body, exposed to *аяз*, experiences the same contraction as a physical pressure from the outside. Among the motivating features are physical pressure, contraction, contact with the bone, and the inability to escape. Note that the construction *бойын аяз қысқандай* (as if the frost has squeezed the body) is grammatically marked as a simile *(-дай).*

Motivating features: physical pressure, contraction, penetration to the bone, contact, inability to escape, the body as a vessel acted upon by an external force.

Sphere. The cold in the body – folk physiology

Суық тиді, суық өтті, денеге суық жүгірді

Regular direction of metaphorical transfer: *СУЫҚ → BODY / FOLK PHYSIOLOGY*

…суық тиді – the cold has touched (he has caught cold).

…суық өтті – the cold has passed through (the chill has reached the bone).

…денеге суық жүгірді – the cold has run through the body (the involuntary shiver of fear or shock).

The Kazakh folk-physiological conception of cold is characterized by a definite transfer of metaphor: it is described as an external force, which invades the body, settles there and must be pushed away by heat. *Суық тиді* – the cold has touched – is the verb of getting cold, where the cold is the agent and the body is the patient. *Суық өтті*, literally the cold has passed through; indicates the deeper penetration of the cold into the body; the coldness that has reached the bone. This involuntary shiver of dread or shock is called *денеге суық жүгірді* (the cold has run through the body) where the cold is personified as a small living thing running over the skin. The image of unity is that cold is a creature with a path, a force with a will, a presence which enters and settles and runs. This sphere is closely similar to the personification of frost as a living entity with mouth and teeth. But the source-target transfer is different: here the cold acts inside the body instead of acting on its surface.

Motivating features: interior penetration, path through the body, agency of an unwelcome guest, the cold as a creature with intentions inside the human vessel.

Personification – Reverse Transfer: ANIMATE BEING → PHYSICAL WORLD (the frost endowed with life)

MACROSPHERE: PHYSICAL WORLD → OBJECT

Subsphere: *The Frost as living being*

Sphere. Frost as a living being

Аяз as a creature with a tongue and a predator's bite

Regular direction of metaphorical transfer: *АЯЗ → LIVING BEING / PERSONIFICATION*

…аяз бетті жалап барады – the frost is licking the face.

…аяз қарыды – the frost has bitten.

The Kazakh *аяз* is endowed with the organs and actions of a living being: it licks the face (*жалап барады*) with a tongue, bites (*қарыды*) with teeth. The verb *жалау* (to lick) is reserved for animate subjects with tongues; in combination with *аяз*, it extends the inventory of the cold's "body parts" beyond the squeezing force to include the small organ that touches the surface of the human skin. The verb *қарыды* (bit) belongs to the predatory register and represents the frost as an attacking creature.

Motivating features: include agentive behavior, possession of bodily organs (mouth, teeth), predatory intent, and live touch with the human skin.

Total directions of metaphorical transfer (main analysis): 8. Total regular metaphorical transfers identified: 8. Total spheres of target representation: 8.

Аяз ата functions in contemporary Kazakh as a proper-noun-like designation of a culturally lexicalized personification (the Kazakh equivalent of *Аяз-ата*/ Father Christmas). The contemporary speaker no longer accesses the underlying transfer FROST IS A GRANDFATHER as a live cross-domain projection; rather, the figure is invoked as a named character. Following the same principle by which *мұзға отырғызу* was treated as a fossilized idiom in the chapter on *мұз*.

…ағаштар ақ тонының етегі жер сызған аяз аталарды еске түсіріп… – the trees recalling the frost grandfathers in their white coats sweeping the ground.

…аязата – the cold granddad, the Kazakh Santa Claus / Jack Frost.

The phrase «*аяз бетті жалап» (*the frost licks the face) refers to the same animistic stratum: the cold has a tongue, and that tongue burns. The relation of *аяз ата* (a lexicalized cultural figure) and the active personification of frost is that of substrate and live extension: the lexicalized figure retains the ancient animism, while the producing metaphors still refer to the same figurative source.

…бойын аяз қысқандай азырақ діріл бар – there is a slight trembling, as if the frost has squeezed the body.

…жалаңаш қанжардай түсі суық Керей – Kerei, whose appearance is cold like a naked dagger.

The first construction *бойын аяз қысқандай* is closely related to the metaphor *аяз қысты* of the squeezing-force register, but the suffix *-дай* overtly marks the construction as a simile rather than as a metaphorical predication. The second construction *жалаңаш қанжардай түсі суық* – the cold face like a naked dagger – combines two figurative elements: the simile (face is like a dagger) and the metaphor of the cold face. Only the second element is admitted to the main analysis; the simile component is treated separately here.

…сақылдаған сары аяз – the crackling yellow frost (severe, long-lasting frost).

…қызыл шұнақ аяз – the red corn-eared frost (the biting frost that turns the nose red).

…қара суық – the black frost (the killing frost).

The colour-marked frosts form a chromatic system of meteorological nomination that is far richer than the English one, and they belong to the deep pastoral stratum of the Kazakh language, in which the categories of intensity and duration of cold were a matter of survival for the herd. *Қара суық*, literally black frost, names the severe, killing frost – the maximal intensity of the phenomenon; black, in this construction, has the same symbolic content as in the other Kazakh meteonyms: gloomy, heavy, very strong, to the highest degree (compare *қара қыс* – the coldest winter). *Сары аяз*, literally yellow frost, names the long, continuous, severe cold of winter – yellow, in the Kazakh understanding, means duration and infinity. *Қызыл шұнақ аяз*, literally red corn-eared frost, names the biting frost that turns the nose red and that, in the older nomadic memory, is associated with the custom of cutting off the ears of animals – the frost so strong that the limbs and ears

of the body had to be hidden away. The custom evoked by *қызыл шұнақ* is the linguistic memory of a winter so severe that the limbs and ears of the body had to be protected at all costs, and behind this network of expressions stands the long memory of the *jut* (*жұт*) – the catastrophic winters in which the deep frost killed the livestock and brought the families to the edge of survival. *Қоңыр*, brown, retains its place in the cold lexicon as the colour of softness and pleasantness – the same *қоңыр* that in the chapter on *жел* named the warm autumn breeze.

These nominations describe the intensity, duration, or character of the frost through a fixed colour code, and they belong to the same typological group as the colour-marked winds (*қара жел, қызыл жел, қоңыр жел, сары жел*), the colour-marked rains (*ақ жаңбыр, қара жаңбыр, тас жаңбыр*), and the colour-marked ice (*ақ қар, көк мұз*) considered in the previous Kazakh chapters. The Kazakh frost is not the abstract frost of the meteorologist; it is the frost of the herd, the steppe, and the shelter. *Аяздай қатты* – hard as *аяз* – extends this image to the human being: to call a man "hard as the deep frost" is to draw on a vocabulary in which the worst of the winter was a measure of the worst of the human, and to call the frost a father is to acknowledge, with the irony of the long-suffering, the kinship between the people of the steppe and the cold that has shaped them. Following A. Barcelona (2003) [24], the negative-evaluative content of *қара* in this paradigm reflects the more general metonymic principle by which "dark (source) for negative value judgment (target)" operates across languages – although the Kazakh *қара* diverges from English *black* in carrying primarily the meaning of intensity rather than sadness.

Like the other Kazakh meteolexemes discussed in this chapter, *аяз* and *суық* do not function as verbs as such. They require a predicate. The fixed combinations of the noun with auxiliary verbs and predicative constructions reveal the verbal energy of cold: *аяз қысты (*frost squeezed), *аяздай батты (*sank like frost), *аяз бетті жалап (*the frost licks the face), *аяздан үсу (*to freeze from the frost), *суық сыға-сыға (*squeezing again and again), *суық тиді (*the cold has touched), *суық қарады (*looked coldly). What these phrases have in common is a grammatical logic in which the cold is never a verb but always a noun, a substantive presence that affects on the world through the verbs it controls. In kazakh, cold does not turn into action, it makes action. frost can. It continues, in grammar and sense, a substantive power.

The compounds *суық хабар (*cold news), *түсі суық (*cold appearance), *суық сын (*cold critique), *суық жүріс (*cold conduct), *суық жігіт (*cold guy), *суық қол (*cold hand / thief), *суық көз (*cold eye / envious look), *суық сөз (*cold word) are part of the everyday moral lexicon of the Kazakh family and community, in which the temperature of a person is the temperature of his social presence.

Behind this network of expressions stood a familiar world of the household, a world in which warmth, literally, was the precondition of survival – the warmth of the fire in the hearth at the center of the yurt, the warmth of the family gathered around it, the warmth of the felt that insulated the dwelling from the steppe winter. In this way of seeing things to speak of a chilly hand, a cold eye, a frigid word is to

brand them as banished from the central heat of the family circle. The Kazakh *суық* is a moral and social temperature long before it is a physical one, and the corpus demonstrates that this evaluative load continues to be active in contemporary Kazakh.

The thermal vocabulary of the Kazakh language is somatic, yet it is somatic in its own manner. The idioms *суық тиді (*the cold has touched), *суық өтті (*the cold has passed through) and *денеге суық жүгірді (*the cold has run through the body) are based on a folk physiology where the cold is an external force which enters the body, settles in it and needs to be pushed out by warmth. In this sense, the Kazakh thermal worldview is the worldview of a population that has lived in closeness to a cold that might be sensed as a thing in itself – a presence with goals, a creature with a route, a force with a will. This is akin to the folk-physiology of the eye in other Kazakh meteorological registers, and is part of a larger Kazakh somatic vocabulary in which the organs of the body are depicted as inhabited surfaces.

3.5 "Ice and freezing" imagery in a metaphorical sense

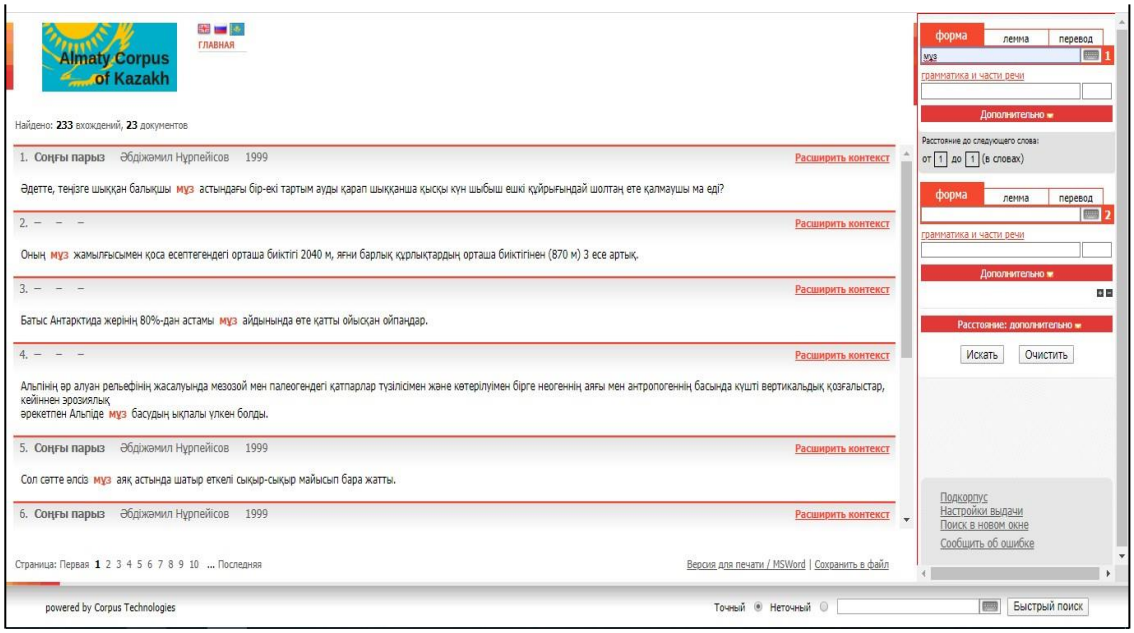
We found the following word combinations with *мұз* in the dictionary*:*

...ақ қар, көк мұз, жүрегі мұз болу, көкмұз, қар төсеніп, мұз жастану, мұзға отырғызып кету, мұз жүрек, мұз көшкіні, мұз қара көк, мұзды мұхит, мұзайдын, мұзбалық, мұзбұрғы, жүрегі мұздай, мұздақтану, мұзды туман, мұзды аңғар, мұздыаяқтану, мұзсарғалдақ, мұзойнақ, мұздықаралық, мұзқурсау, мұзқашыртқы, мұзсүңгі, мұзтау, мұзхана [172].

Another example of solid, hard and fixed characteristics of an ice which was metaphorized into the following non-literal use [I haven't signed on the dotted line yet but *it`s on ice*] *(Somerset Maugham. The Razor`s Edge. Ch. VII: to be on ice келісім беру, қол алысу, сөз байласу, мәмілеге келу*, that is plans are accepted and it was decided. On the other hand it has a negative connotation, for example: [Gradually, Pu Yi came to understand that the Soviets were simply *keeping him on ice*...] (Edward Behr. The last Emperor) *қыл үстінде тұру* (to stand on the edge) to be in difficult situation [159].

We identified 233 concordance entries across 23 documents for the entry мұз/ice in the ACKL; the selected metaphorical occurrences are given below with a translation and an explanation of their metaphorical meaning. Recent Kazakhstani corpus studies confirm the potential of the national corpora for tracing authorial and ethno-cultural metaphors and their frequency of use [215; 216; 217].

Figure 6 – Corpus occurrences for *мұз/ice* from ACKL



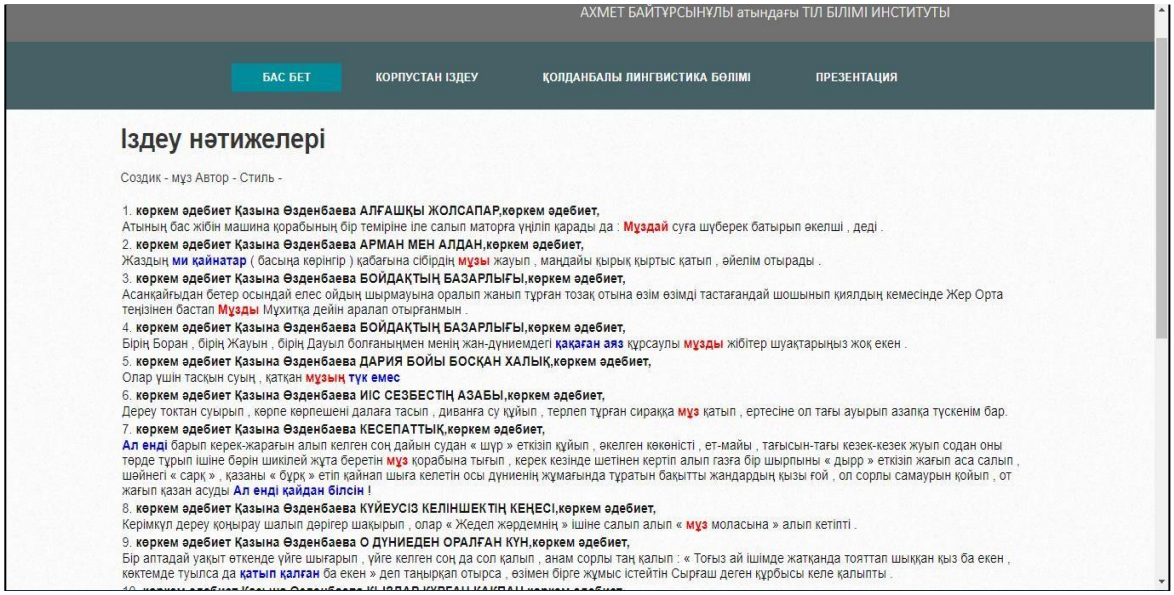
[*…Бірінші шахтада істейді екен, мұздай киініпті…*] (*Ә.Әбішев* "*Жас түлектер*") [159] trans. Both were dressed with a needle – *мұздай киіну*. Spotlessly and fashionably dressed. Metaphor occurred on analogy of the nature properties of ice to glitter in the sunlights, to shine like ice on the sun. lit.: dress to shine like ice [159]. *мұздай киіну* literally, it is translated as: to dress to shine like ice. About an impeccably, fashionably dressed spick and span man. They were both spick and span.

Мұздай means *тегіс, тұтас, мұздай киінді – тегіс киінді*, literally it means without flaws, without folds, dented clothes, metaphorical transfer is carried out using the characteristics of ice: "evenness and smoothness". The Kazakhs were not only engaged in cattle breeding but also in fishing, so the ice completely covers the surface of the water completely, fully and without breaks, hence there are the associations.

The following metaphors were formed in a similar way: *мұздай қарулану* – to arm yourself from head to toe, fully to equip yourself with weapons, literally from the needle i.e. "completely" here to the teeth; another metaphor, *мұздай өтірік*, complete – a lie, a complete lie. Literally it is translated as the ice lie or cold lie.

Мұздай қарулану – metaphorically explicates a person as ready for attack and conflict, conveying the "coldness" of a person's icy attitude toward the situation. Unlike *мұздай аман* and *мұздай қара көк*, where *мұздай* functions as a mere intensifier, here it carries a distinct metaphorical meaning.

Table 9 – Selected concordance lines for мұз/ice in the ACKL



SOURCE SPHERE: PHYSICAL WORLD

Kazakh lexeme МҰЗ (ice) – frozen water

MACROSPHERE: PHYSICAL WORLD → PSYCHIC WORLD

***Subsphere**: Emotional life (the frozen heart, the icy gaze)*

Sphere. Frozen emotion and the heart

Мұз as frozen feeling and the iced heart

***Regular direction of metaphorical transfer:** МҰЗ → EMOTIONAL ASPECT / INNER STATE*

…соғысқа аттанған күннен бері мұз боп қатқан көңілі тұңғыш рет жібіп… – for the first time since the start of the war, his iced mood melts.

…Еламанның жүрегі мұздай болды… – Elaman's heart turned to ice.

…қабағында мұз, жүзінде ызғар… – ice on the eyelids, frost on the face.

In the Kazakh corpus, *мұз* is figured first of all as the frozen state of inner feeling. *Мұз боп қатқан көңіл* – the mood that has hardened into ice – is a metaphor for emotional shutdown caused by trauma, self-protection, and numbness; the verb *жібіді* (melted) signals the reawakening of feeling, the return to emotional responsiveness. *Мұз боп қатқан жүрек* – the heart frozen into ice – names inner coldness, detachment, and the inability to feel; in another reading it carries the meaning of disappointment and hatred, the heart that has hardened against the world. The phrase *мұз боп қату* in this register means resentment and cooled feelings; *ішінде мұз жату* – there is ice inside – figuratively means resentment, the offence that has settled in the belly and refuses to leave.

Жүрегі мұздай болды and *көкірегі мұздай болды* project the same image onto the heart and the chest of a person seized by anxiety or fear. The compound word *мұзжүрек* – ice-heart – is the lexicalized form of the same image, the direct equivalent of the English ice-heart / heart of ice.

Motivating features: emotional numbness, hardness, blockage, the inability to move or feel, slow return of warmth through melting.

Sphere. Gaze and facial expression

Мұз көз and the icy gaze of dominance

Regular direction of metaphorical transfer: *МҰЗ → BODY PARTS / EMOTIONAL DISTANCE*

...Яковенко да бұған мұз көзімен тесіле қарап тұрды… – Yakovenko looked point-blank with his icy eyes.

...қабағында мұз, жүзінде ызғар… – ice on the eyelid, frost on the face.

The compound *мұз көз*, and its variation *мұз көзімен* – with icy eyes – figuratively refers to the expression of emotionless, stern, and closed-off interiority. The cold is not physical but psychological: the eyes are called ice because they do not transmit warmth, empathy, human tenderness. The word *тесіле қарап тұрды* (looking point-blank, piercingly) adds to the unrelenting scrutiny. The metaphor depicts the gaze as a kind of emotional weapon – a frozen, piercing stare that precludes connection and proclaims power.

The metaphor *қабағында мұз* – ice on the eyelid – means a furious, frowning mood: the bone that sticks out between the eyebrow and the eye becomes a tiny frozen surface that signals inward discontent.

Motivating features: frozen surface, dominance, scrutiny, emotional closure, refusal of warmth in the exchange of looks, anchoring of feeling in facial micro-zones.

Subsphere: *Endurance and self-discipline*

Sphere. Endurance, suffering and hardship

Мұз as the bed of suffering and the cooler of passion

Regular direction of metaphorical transfer: МҰЗ → PHYSICAL STATES / MORAL ENDURANCE

...мұз бен қарға бауырымды басып… – to press oneself against snow and ice in order to snuff out the inner flames.

...қар төсеніп, мұз жастанып дамыл алмай жүріп… – to experience torment, difficulty (literally snow as a sheet, ice as a pillow).

Мұз арқалап, күл төгу – to experience difficulties, literally to carry ice on the shoulders and pour out ash.

The Kazakh *мұз* also occupies the central place in the lexicon of suffering and endurance. The expression *мұз бен қарға бауырымды басып* names the desire to press oneself against the ice and the snow as a way to extinguish inner fire – to cool the unbearable passion or grief – and the verbal compound *мұзға басу* means precisely this: to freeze the emotions, to forget the inner feelings, to subject the soul to the discipline of cold. *Қар төсеніп, мұз жастанып* – with snow as a sheet and ice as a pillow – is one of the most concentrated images of hardship in the Kazakh language, the linguistic distillation of a long winter journey or a long ordeal.

Жастану means to lean, to find support, to rest the head against; *төсену* means to lay something under oneself, to spread it. The combination is always used together, and its overall metaphorical meaning is to experience incredible difficulties and to overcome them. The synonymous expression *мұз арқалап, күл төгу* – to carry ice on the shoulders and pour out ash – preserves the same image of voluntarily borne hardship.

This idiomatic cluster reflects the ethnographic reality of the nomadic winter migration *(қыстау).* Overwintering on the open steppe often meant that the herder slept directly on snow and ice while watching the animals, so that the cold endured in close body contact was in the traditional way of life, a real test of stamina before it was a symbolic one [218]. So the metaphor compares suffering not to some abstract cold, but to a tangible, remembered experience of the pastoral economy, a practice in which the physical endurance of ice and snow was inseparable from the moral endurance of adversity [218]. Recent comparative studies of Kazakh and English phraseology have revealed the similar national-cultural determination of idiomatic units [219].

The relationship between wind and ritual agency is even deeper: pre-Islamic sources describe traveling baksy shamans who were thought to invoke or prevent wind, storm and snowfall with a jada stone, a practice previously recognized by ninth and tenth century Arab geographers [218, p. 214-215]. The terminological system of these nomadic categories and notions is defined in the five-volume encyclopedia of Kazakh ethnographic categories, concepts and designations and in the short multilingual dictionary of Kazakh ethnography [220; 221].

Motivating features: discipline of cold, voluntary acceptance of hardship, cooling of inner fire, the body as a vessel that endures the frozen surface.

The metaphorization of the lexeme *мұз* in Kazakh demonstrates a concentrated network of three productive figurative transfers, all of the type PHYSICAL WORLD → PSYCHIC WORLD: emotional state, moral endurance, and gaze / facial expression. Through the recurring motivational features of hardness, immobility, emotional numbness, and the discipline of cold, the solid phase of water serves as a productive metaphorical source domain. Within the Semantic Sphere of HUMAN, *мұз* embodies three principal dimensions of Kazakh experience – emotional, characterological, and somatic.

Total directions of metaphorical transfer (main analysis): 3. Total regular metaphorical transfers identified: 3. Total spheres of target representation: 3. Direction PHYSICAL WORLD → PSYCHIC WORLD: 3 directions (100 %).

Failure of step (c) – contrast between contextual and basic meaning is not understood by the contemporary speaker through live cross-domain comparison.

…татарларды мұзға отырғызып кету… – to fool, to leave a person on the bare flat place.

Тақырға отырғызып кету – literally to put on smooth naked ice, to leave a person with nothing.

The Kazakh idiom *мұзға отырғызып кету* – literally to leave a person on the ice – has the figurative meaning of deceiving, of leaving someone with nothing. The synonymous expression *тақырға отырғызып кету* builds on the same image: *тақыр* in Kazakh means the cracked saline bare land, the flat place where there is no grass and no vegetation; in figurative use it means damage, hunger, and loss.

The idiom is not a productive cross-domain metaphorical transfer but a fossilized phraseological unit with a folkloric-etymological origin. A.Zh. Chazimova (2002) connects the origin of this metaphor with the Kazakh customs of

hunting wolves and other animals: the exhausted animal froze in cold sweat and fell into the trap, while on the ice the hunters left the bait, and the wolves that came to eat it became prey themselves. In Kazakh folktales of the cunning fox, the fox tricks the wolf into sitting on the ice, where the lathered animal freezes to the surface and is caught [183].

The Kazakh *ice* is thus, at the lexicographic level, the ice of the steppe hunt and the ice of the folkloric trickster, and to this day the speaker who uses the idiom inherits, however unconsciously, the entire ecology of the steppe winter. The contemporary speaker of Kazakh, however, no longer accesses this etymological motivation when using the idiom: the meaning "to deceive" is retrieved directly from the fixed expression as a whole, without a live metaphorical projection from the source domain ICE onto the target domain DECEPTION.

The closest English idioms of deception of similar opacity are *to leave someone high and dry, to leave someone in the lurch, to hang someone out to dry*. None contains the source domain ICE; the parallelism is functional, not figurative.

The lexeme *мұз* is not present in the expression; the chromatic lexeme *көк* carries the descriptive load.

...Көзі тұздай көк – literally salt-blue eyes.

...Көк көз – blue eyes.

The expressions *көзі тұздай көк* and *көк көз* are sometimes cited alongside *мұз көз* as part of the metaphorical cluster of the icy gaze. On closer examination, however, these expressions do not contain the lexeme *мұз* at all: they belong to the colour lexicon of *көк* (blue) and to the comparative formula with *тұз* (salt). The colour of the iris is described directly, in literal language, as blue or salt-blue. The connection to ice is only indirect – through the cultural association of *көк* with the colour of the frozen surface – but the expressions themselves are not metaphors of *мұз*. They are accordingly considered here separately, as colour nominations belonging to the chromatic lexicon rather than to the metaphorical lexicon of ice.

...төбесінен мұздай су құйғандай сілейіп тұрып қалды... – as if cold water had been poured on his head, he stood stunned.

The construction *төбесінен мұздай су құйғандай* – literally as if cold water has been poured on the head – names the bodily shock of an unexpected blow of news.

The suffix *-дай / -дей* is the standard Kazakh marker of simile, and the construction is grammatically a comparison rather than a metaphor. The reference to *мұздай су* (icy water) is also literal: cold water is named as cold water, not as a figurative source domain.

The English equivalent simile *as if a bucket of cold water had been thrown over him* preserves the same somatic anchoring of shock through cold water. The construction is closely related to the *суық хабар* of section 4.4, where the same somatic mechanism – cold as the bodily correlate of shock – is at work.

...ақ қар көк мұзда үдере көшіп неміз бар?... – in white snow and blue ice, in the deepest winter.

Көк соқта болды – heavy snow clumping (heavy snow melt and the appearance of melted snow).

Ақ қар, көк мұз – literally white snow and blue ice – is one of the most distinctive Kazakh seasonal compounds and the standard Kazakh formula for the deepest stage of winter, in which the colours *көк* and *ақ* together name the visual condition of the frozen world. The colour *көк* (blue) is reserved for the visible gleam of the frozen surface – the colour of the iris of the eye, the colour of the ice rink left by the rain and the cold, and the colour of the long winter sky. *Көк соқта болды* and *көк соқталанды* describe the heavy clumping of melted snow when the snow has begun to thaw. The same chromatic system that runs through the wind, the rain, the lightning, and the cold of the previous sections – *қара, ақ, қызыл, сары, қоңыр* – finds its closing chord in the *көк* of the ice and the *ақ* of the snow. The Kazakh ice is not a colourless phenomenon: it is the blue surface of the deepest winter, dressed in the same chromatic spectrum as the language itself.

These nominations show the intensity, duration or character of the frozen surface by a fixed color code. They belong to the same typological group as the colour-marked winds (*қара жел, қызыл жел, қоңыр жел, сары жел*), the colour-marked rains (*ақ жаңбыр, қара жаңбыр, тас жаңбыр*) and the colour-marked frosts (*қара суық, сары аяз, қызыл шұнақ аяз, қоңыр суық).*

Like the other Kazakh metelexemes discussed in this chapter, *мұз* does not function as a verb in its own right; it needs a predicate. The verbal energy of ice is realized in fixed combinations of the noun with auxiliary verbs and predicative constructions: *мұз боп қату* (to freeze into ice), *мұзға басу* (to press oneself onto the ice, to suppress feeling), *мұз жастану* (to lean on ice as a pillow), *мұз төсену* (to spread ice as a sheet), *мұзға отырғызу* (to leave on the ice, to deceive), *мұз көзімен қарау* (to look with icy eyes), *мұздай су құйғандай* (as if doused with icy water). In each of these forms, ice is assigned the function of a concealed agent acting through the verb, the noun keeping its full lexical weight. The frozen surface does not become a verb like English ice, but maintains a substantive force, both grammatically and semantically, in Kazakh.

Expressions such as *қар төсеніп мұз жастанып, мұз арқалап күл төгу, мұз бен қарға бауырымды басып are* embedded in the deep layer of Kazakh moral imagination where the disciplined acceptance of suffering –the snow as a sheet, the ice as a pillow – is a sign of spiritual quality. In this sense, Kazakh ice is not the ice that degrades the human, but the ice that tempers him: to lie on the snow and ice is to demonstrate the ability to endure. This stratum is the meteorological equivalent of the cultural ideal of *сабырлы, салмақты* – the calm, disciplined, restrained individual – that pervades Kazakh moral discourse.

The compound *мұзжүрек*, the iced heart, the construction *мұз боп қатқан көңіл*, the localized image of ice settled in the belly (*ішінде мұз жату*) and on the eyelid *(қабағында мұз*) belong to the everyday emotional lexicon of the Kazakh family, where the inner state of feeling is described through the temperature of the body parts.

The disciplined warrior with a frigid face, the insulted person with ice in his belly, the disappointed lover with a frozen heart, the suspicious bystander with a hardened brow – all these are images of Kazakh inner life painted on the surface of frozen water. The verb *жібу*, "to melt", suggests a gradual return of warmth and a recovery of sensation. Directly above this is the characterological sphere: to say that a person has a heart of ice (*мұз жүрек, мұздай қатты*) is, in the Kazakh worldview, to declare that they have gone out of the warm circle of the family and the aul – the central hearth of the yurt, the felt walls, the family gathered around the fire – into the same cold that the river and the lake have entered for the season.

The Kazakh *мұз* first of all preserves the memories of the river and lake in winter. *Мұз қату* – the freezing of the water surface – is the seasonal event when the river stops to be a barrier and becomes a road, and the lake ceases to be a hunting area and becomes a path. Cross over the ice – *мұз үстінен өту* – is the name given to the practical crossing that the cold made feasible for the nomad and the trader. Cold as ice – *Мұздай суық* – is a comparison formula where the ice itself is the highest grade of the cold. Beneath these expressions is a world that can be recognized where the freezing of the water was not a lyrical image but a calendrical event with practical consequences: the date of the first ice opened the winter routes, the date of the first thaw closed them. In this main sense, the Kazakh ice is the ice of the working winter, and the figurative life of the lexeme nevertheless has that practical direction. When you say *мұздай суық*, you're not comparing it to something in a book. Instead, you're using a temperature scale that has been set up generation by generation by comparing it to the ice in the rivers and lakes of Kazakhstan.

A further feature concerns the relationship between ice and movement. *Мұз үстінде тұрғандай* – as if standing on ice – names the precarious situation in which any false step may be the last. *Мұзбен жүзу* – to glide on ice – names the dangerous ease with which a confident step may turn into a fall. Behind these expressions stands the practical experience of a population for whom the frozen surface was, simultaneously, a route and a hazard – the means of crossing and the means of falling.

The Kazakh ice is, in this dimension, a moral surface: the place on which one's footing must be tested with each step, the place where confidence and caution must coexist. The figurative life of the lexeme transfers this physical condition to the social and emotional registers, in which the Kazakh speaker who finds himself in a delicate negotiation or a dangerous conversation is, by long linguistic habit, a man standing on ice. The English equivalent *on thin ice* carries the same image but lacks the additional Kazakh nuance of ice as a route – for the English speaker the ice is only the hazard, for the Kazakh speaker it is both the hazard and the necessary path [206].

The metaphorical analysis of the Kazakh meteorological lexis presented in Sections 3.1–3.5 allows us to draw the following conclusions, which are structured according to the key thematic areas of the chapter, the prevalent directions of metaphorical transfer found within them and their underlying motivating features:

1. In all five thematic groups – air and wind, precipitation, electrical and sound phenomena, temperature, and ice and freezing – the dominant channel of metaphorical transfer runs from the natural phenomenon to the human being. The main analysis identified 41 regular directions of transfer, distributed as follows: 13 for *жел, боран* and *дауыл, 8* for *жаңбыр, қар* and *бұршақ, 9* for *найзағай, 8* for *аяз, суық* and *ызғар,* and 3 for *мұз.* The target spheres are the character, the emotions, the speech, the body and the moral standing of the person, which confirms for the Kazakh material the same anthropocentric orientation that was established for English in the previous chapter.

2. The Kazakh meteonym remains grammatically substantival. *Жел, жаңбыр, қар, найзағай, аяз, суық* and *мұз* are not used as verbs in their own right; the verbal energy of the phenomenon is realized through fixed combinations of the noun with auxiliary verbs and predicative constructions – *жел беру, жел тиді, аяз қысты, суық тиді, найзағай ату, мұз боп қату.* The weather in Kazakh does not turn into action, it produces action, and the phenomenon retains its full lexical weight as a substantive force. This is a systematic typological contrast with the verbal-processual representation of the English material described in the previous chapter.

3. The chromatic code is the most distinctive structural feature of the Kazakh meteorological lexicon. The colour-marked winds (*қара жел, қызыл жел, қоңыр жел, сары жел),* storms and whirlwinds (*қара боран, қара дауыл, көк дауыл, ақ құйын, ала құйын),* rains (*ақ жаңбыр, қара жаңбыр, тас жаңбыр, алтын жаңбыр),* frosts (*қара суық, сары аяз, қызыл шұнақ аяз, қоңыр суық)* and the snow and ice of the deepest winter (*ақ қар, көк мұз)* form a single system in which the colour term names not the hue but the intensity, the duration and the character of the phenomenon: *қара* is the maximal degree, *сары* is duration and continuity, *қоңыр* is mildness and warmth, *қызыл* is dry heat. These nominations are terminological-evaluative rather than productive cross-domain transfers, and the English material offers no comparable system.

4. The equestrian and pastoral stratum has no counterpart in the English material. The speed of the wind is measured by the animal rather than the animal by the wind: *желмая, жел саңлақ, жел қуық жылқы, жел жетпес* and *жел жетпейтін құландар* realize the reverse direction ANIMAL → WIND, in which the horse, the camel and the kulan serve as the benchmark of velocity. The same equestrian frame organizes the imagery of lightning: in *найзағайлар ұшады табанынан* the lightning rises from the hooves of the epic racehorse, so that the metaphorization of electrical phenomena carries forward the memory of an equestrian and heroic culture.

5. The somatic and characterological line localizes the trait in a named organ. *Жел өкпе, жел бүйрек, жел бауыр, мұзжүрек, қар қатқан қабақ, қабағында мұз, ішінде мұз жату, суық көз* and *суық қол* assign the quality to the lung, the kidney, the liver, the heart, the brow, the belly, the eye and the hand rather than to the head or to an unspecified inner space. Underlying this is a folk physiology in which the cold is an external agent that enters the body, settles in it and has to be driven out by warmth: *суық тиді, суық өтті, денеге суық жүгірді.*

6. The evaluative orientation of the Kazakh material is not uniformly negative. *Жаңбыр* is first of all abundance and divine grace (*алтын жаңбыр, жылы жаңбыр, шапағатпен жауады жылы жаңбыр); мұздай* functions as an intensifier of completeness and flawlessness (*мұздай киіну, мұздай қаруланy);* and the endurance of snow and ice (*қар төсеніп мұз жастану, мұз бен қарға бауырымды басып)* belongs to a moral-ascetic stratum in which the disciplined acceptance of hardship is a sign of spiritual quality – the meteorological equivalent of the cultural ideal of the *сабырлы, салмақты* person.

7. The chapter also establishes the boundaries of the productive metaphorical inventory. Metonymic relations (*жел қарысты, жел көз),* similes marked by the suffix *-дай / -дей (бойын аяз қысқандай, мұздай су құйғандай),* indexical nominations (*Сүмбіле жаңбыры),* onomatopoeic-imitative constructions (*шатырлаған найзағай* in its literal sense), lexicalized cultural figures (*Аяз ата)* and fossilized phraseological units of folkloric-etymological origin (*мұзға отырғызып кету, тақырға отырғызып кету)* are described in the corresponding sections for completeness, but are excluded from the count of productive cross-domain transfers. This separation of the metaphorical core from the adjacent figurative and terminological material is what makes the quantitative results of the present chapter comparable with those obtained for English.

Taken together, these findings show that the Kazakh meteorological metaphor is organized around a set of culturally embedded lines of its own: the substantive grammar of the meteonym, the chromatic code of intensity and duration, the equestrian scale of speed, the localization of the trait in the named organ, and the moral-ascetic reading of cold and ice. The five thematic fields and the dominant direction of transfer coincide with those established for English, while the motivating features and the cultural memory behind them diverge. The systematic comparison of the two inventories, together with the quantitative distribution of the directions of transfer across the five thematic groups, forms the subject of Section 3.6.

3.6 Comparative synthesis of English and Kazakh meteorological metaphors

The distribution of the directions of metaphorical transfer identified in Chapters 2 and 3 across the five thematic groups of meteorological lexis is summarized in Table 10. Each direction of transfer is counted once for a given source lexeme as a distinct source → target correspondence identified in the main analysis; reverse-direction transfers and non-productive folk-terminological nominations, discussed in the corresponding sections for completeness, are not included in these totals. In the comparison below, a conceptual metaphor shared by both languages is referred to as a universal mapping, and a direction attested in only one language as an English-specific or Kazakh-specific extension (see Section 1.4).

Table 10 – Distribution of the directions of metaphorical transfer across the thematic groups of meteorological lexis in English and Kazakh

Thematic group of meteorological lexis	**English**	**Kazakh**
Atmospheric air masses	21	13
Atmospheric solid and liquid precipitation	11	8
Atmospheric electrical and sound phenomena	7	9
Temperature phenomena	8	8
Ice and freezing imagery	18	3
Total	**65**	**41**

The corpus-based procedure underlying these figures is consistent with recent work in the field: experimental research examines how signalling and novelty affect the perception and rating of metaphors [209], while corpus-assisted discourse studies apply similar extraction procedures to the comparative framing of climate change in the media of different languages [222]. Comparable tendencies are documented for other natural-force domains: metaphorical framings of the 2025 California wildfires map human, animal and mythical agency onto fire and wind [223; 224], while large-scale computational studies trace the WATER/FLOOD source domain in social and political discourse [225].

The distribution of the same directions by the type of target, established on the basis of the macrosphere headings of Chapters 2 and 3, is given in Table 11.

Table 11 – Distribution of the directions of metaphorical transfer by target macrosphere in English and Kazakh

Target macrosphere	**English**	**Kazakh**
PSYCHIC WORLD	41 (63.1 %)	20 (48.8 %)
HUMAN	10 (15.4 %)	6 (14.6 %)
ABSTRACTION	11 (16.9 %)	10 (24.4 %)
OBJECT	3 (4.6 %)	5 (12.2 %)
Total	**65 (100 %)**	**41 (100 %)**

The target spheres PSYCHIC WORLD and HUMAN together account for 51 of the 65 directions in English (78.5 %) and for 26 of the 41 directions in Kazakh (63.4 %), which supports quantitatively the anthropocentric orientation of meteorological metaphorization in both languages. The remaining directions lead to the macrospheres ABSTRACTION and OBJECT, whose share is higher in Kazakh (36.6 %) than in English (21.5 %).

The MIP/MIPVU test also produced a second, less visible result: an inventory of units that are described in Chapters 1–3 but excluded from the count of regular transfers (Table 12).

Table 12 – Units excluded from the count of regular metaphorical transfers (borderline layer) in English and Kazakh

Category (identification criterion)	**English**	**Kazakh**
Similes (direct comparison marked by as … as / like or by the suffix -дай / -дей)	7 – as fast as lightning, as right as rain, white as snow, black as thunder, cold as a fish, as cold as charity, cool as a cucumber	3 – бойын аяз қысқандай, жалаңаш қанжардай түсі суық, төбесінен мұздай су құйғандай
Metonymic and indexical relations (contiguity instead of similarity)	4 – winded, second wind, long-winded, broken wind (wind as breath)	3 – жел қарысты, жел көз, Сүмбіле жаңбыры
Homonymy (different etymology)	2 – to wind down, to wind up	–
Fossilized idioms, formulas and lexicalized cultural figures (motivation not accessible to the contemporary speaker)	8 – to raise the wind, to save for a rainy day, it rains pitchforks (darning-needles, hammer-handles), Snow White, by thunder!, to steal someone’s thunder, the cold shoulder, cold turkey	3 – мұзға отырғызып кету, тақырға отырғызып кету, Аяз ата
Folk and terminological nominations of weather phenomena	20 – white squall, cow quaker, lambing storm, Gowk storm, gosling blast, Robin Hood’s wind, Billy Wind, the Cape Doctor, Harmattan, three o’clock / nine o’clock wind, perry, hurly-burly, watermelon snow, corn snow, snow pellets, ball lightning, pearl-necklace lightning,	21 – қара, қызыл, қоңыр, сары жел; қара боран, қара дауыл, көк дауыл, ақ құйын, ала құйын; ақ, қара, тас жаңбыр; қара суық, сары аяз, қызыл шұнақ аяз, қоңыр суық; ақ қар, көк мұз; көк соқта; көзі тұздай көк, көк көз; шатырлаған найзағай (onomatopoeic)

	ribbon lightning, sheet lightning, rocket lightning	
Reverse or mediated transfers (BODY / OBJECT → WEATHER; transfer through an intermediate concept)	11 – eye of the wind, teeth of the gale, fishtail wind, bull's eye squall, Helm wind, storm belt, wind sock, thunderhead, rainhead, frostbite, snow bird	–*
Insufficient corpus attestation	–	1 – заман – соққан жел (TIME IS THE WIND)
Total	**52**	**31**

Note – The table lists the units described as borderline in Sections 1.4, 2.1–2.5 and 3.1–3.5. * The equestrian images желмая and жел жетпейтін құландар, characterized in the Interim conclusions on the Kazakh material as the reverse direction ANIMAL → WIND, are analysed within the sphere "The horse as wind – speed and endurance" of Section 3.1 and are included in its total.

The excluded layer is comparable in size to the productive inventory itself: 52 units against 65 directions of transfer in English and 31 units against 41 directions in Kazakh. Its composition differs between the languages. In English it consists mainly of fixed names of winds, storms and forms of lightning and snow of regional, maritime, military and meteorological origin (20 units), of reverse or mediated transfers (11 units) and of idioms whose motivation is no longer accessible (8 units). In Kazakh, 19 of the 21 terminological nominations belong to the colour code of intensity (ақ, қара, қызыл, сары, қоңыр, көк, ала). Similes and metonymic relations are few in both languages and do not distinguish them. The comparison of the excluded layers thus shows that a considerable part of the national-cultural specificity of the two languages lies outside the metaphorical core identified by MIP/MIPVU.

The comparative analysis of the metaphorization of wind/storm in English and *жел/дауыл/боран* in Kazakh reveals the following equivalent and non-equivalent representations:

– Grammatically, English *wind* functions both as noun and as verb (*it is windy / the wind blew / to wind through*), while Kazakh *жел* is purely nominal and requires a predicate (*жел соқты* – the wind has blown). This asymmetry produces a processual-verbal representation in English and a static-substantive one in Kazakh, and runs through the entire comparative inventory.

– The core metaphor common to both languages is WIND AS CHANGE / WIND AS MOVING FORCE, attested in both *a wind of change* and *жеңіс желі* (may the wind of victory blow under your wings). In both languages the wind names a new direction, a moving force that brings transformation. However, the English construction *wind of X* (*wind of change, wind of God, wind of generosity*) is considerably more productive than its Kazakh equivalents (*жеңіс желі, өзгерістер желі*), which exist but are not lexicalized with comparable density.

– The Kazakh anatomical paradigm (*жел өкпе, жел бүйрек, жел бауыр*) has no English equivalent. English realizes the figure of the frivolous person through *windbag* and through different non-meteorological sources (*empty-headed, airhead, scatter-brained*), but does not develop the named-organ paradigm. The Kazakh model uniquely localizes the trait in a specific named organ rather than in the head or in unspecified emptiness.

– The Kazakh equestrian register (*желмая, жел саңлақ, жел жетпейтін құландар* – the wind-camel, wind-racer, kulans uncatchable by the wind) has no productive English equivalent. English realizes speed through *swift as the wind, run like the wind, quick as the wind*, but does not lexicalize the family of compound wind-animal names rooted in nomadic experience.

– The Kazakh *жел тимеген* family has only a partial English parallel through *untouched* (*her reputation was untouched by scandal*), but the specific paired image with the sun (*жел тимеген / күн тимеген*) and the moral-bodily anchoring in the chaste body are Kazakh-specific.

– The Kazakh *жел сөз* (idle wind-words) corresponds closely to the English *to talk hot air, idle talk, empty words*, but the Kazakh *жел буаз* – speech inflated with air, like a pregnancy of air – represents a more vivid and culture-specific image that English does not lexicalize.

– The English *wind* develops senses of smell, scent, breath, and spirit that are absent from Kazakh *жел*: *to get wind of* (to learn about), *to get one's second wind* (to recover energy), *winded* (out of breath). These English senses cluster around the representation of wind as breath and as smell – registers that Kazakh *жел* does not productively develop. In Kazakh, *ентігу* (to be short of breath) and *дем* (breath) belong to a separate lexical field from *жел*; the two domains do not merge.

– The English figurative-epistemological register (*to get wind of something, what's in the wind, a straw in the wind, changes in the wind*) exceeds the Kazakh equivalent in productivity. Kazakh *жел* does not lexicalize the wind-as-medium-of-news representation in comparable density.

– English *storm* develops a cyclical-resolution structure (*the political storm that abates, the eye of the storm*) with no productive Kazakh equivalent. Kazakh *дауыл* and *боран* are productive in colour-marked compounds (*қара дауыл, көк дауыл, қара боран, ақ құйын*) but these function in a terminological-evaluative rather than productive metaphorical register.

The wind metaphor, as the corpus data show, cuts across both languages at the level of its basic figurative logic – invisible force made visible through its effects on living things – yet the cultural elaboration diverges sharply. Kazakh *wind* enters the body through named organs, measures itself in horses and seasons, and carries the moral weight of the steppe; English wind organizes political change, marks the turning point of crisis, and questions what the mind can and cannot know. The shared source, the divergent destination [226; 211].

The comparative analysis of the metaphorization of precipitation in English and Kazakh reveals the following equivalent and non-equivalent representations:

– Grammatically, English *rain / snow / hail* function both as nouns and as verbs (*it rained, it snowed, hail struck the harvest*), while Kazakh *жаңбыр / қар / бұршақ* are purely nominal and require a predicate (*жаңбыр жауды* – the rain has fallen). This asymmetry produces a more processual representation in English and a more substantival one in Kazakh.

– The metaphor RAIN IS AN ANIMATE AGENT is shared by both languages. English personifies rain extensively (*the rain beats on the windows, the rain lashes the trees, the rain washes the streets, the rain pelts down*), but the Kazakh *жаңбыр мүжіген* (the rain has gnawed) is unusual in extending personification to a slow erosive action over time, where English would typically use *the rain has worn down / weathered* with less explicit animate marking.

– The metaphor VERBAL ATTACK IS A HAILSTORM (English: *hail of criticism*) corresponds closely to the Kazakh BULLETS ARE HAIL (*бұршақтан оқ ату*), with both languages drawing on the shared image of rounded falling projectiles. The Kazakh material adds the somatic dimension (tears as hail, sweat as hail) that English does not productively develop – English realizes this transfer with restricted productivity (*tears rained down, a rain of tears, sweat poured down, beads of sweat*) and does not lexicalize the hail-tear analogy as a fixed collocation.

– The English model WEALTH IS RAIN of unexpected gain (*windfall, raining money*) corresponds closely to the Kazakh *алтын жаңбыр* (golden rain as image of livestock abundance and divine blessing). Both languages share the metaphor BLESSING IS RAIN, with the English version more financialized and the Kazakh version more pastoral. English also has the directly comparable *a golden rain / a shower of gold* (with mythological roots in the Danaë story), the idiomatic *when it rains it pours* (used both positively and negatively), and the biblical *the early and the latter rain* (Joel 2:23, James 5:7), which carries the same agrarian-spiritual association of rain with divine blessing. However, the dominant English association of rain remains negative – gloom, inconvenience, misfortune – whereas in Kazakh the dominant evaluation is positive.

This asymmetry is one of the clearest cross-cultural contrasts in the present material and is consistent with Kövecses (2005) [28] on the climatic and ecological grounding of metaphorical evaluation.

– The English idiomatic vocabulary of heavy rain (*to rain cats and dogs, to rain pitchforks, to come down in buckets, to rain in torrents*) reaches for images of household objects, animals, and farm tools – items of the domestic interior turned for a moment into projectiles falling from the sky. There is a quiet humour in this lexicon, the humour of an island culture in which heavy rain is so frequent that it has been domesticated into idiom. The contrast with the Kazakh *алтын жаңбыр* could not be sharper: where the Kazakh rain is celebrated as the gift of livelihood, the English rain is endured with the gentle irony of those who live with it every day.

– The English model BEING OVERWHELMED IS BEING SNOWED UNDER has no direct Kazakh equivalent. The Kazakh snow lexicon develops other directions (the disciplined body lying on snow as moral endurance, soft *жасық қар*

as image of moral weakness) but does not lexicalize the burden-of-overwork metaphor.

– The Kazakh moral metaphor SOFT SNOW IS AN UNRELIABLE PERSON (*жасық қар*) has no direct English equivalent. English realizes a similar evaluation through different sources (*a wet blanket, a wishy-washy person, weak as water, spineless*), but does not develop snow as a source for moral character evaluation.

– The metaphor ANGER IS A FROZEN SURFACE is shared by both languages. English realizes facial anger through *a frosty look, a frozen expression, a cold stare, a thunderous brow*, but does not specifically lexicalize the brow as the frozen zone in the way Kazakh does.

– The English model (RAIN IS TEARS) corresponds closely to the Kazakh metaphor of rain as tears (*жас төгеміз жаңбырдай* – we shed tears like rain) and to the related hail-as-tears construction (*бұршақ көз*). The figurative parallel is one of the clearest in the present material and is rooted in the shared image of vertical fall of small rounded bodies.

– The English model (ACID RAIN as moral corrosion) – a third-order metaphor in which a scientific compound is borrowed back into figurative language – has no parallel in Kazakh, where the corresponding ecological term is more recent and has not yet entered the figurative system.

– Both languages use snow in complex adjectives of whiteness (*snow white – аппақ қардай*). The metaphorical use of *snow of yesterday* in English names something that does not deserve attention, while the Kazakh equivalent *жаздa жауған қардай* (literally summer snow) carries the meaning of an unexpected, unpleasant, and out-of-place event. The English idiom *snow job* (insincere flattery covering the truth, as a snowfall covers an object) has no direct analog in Kazakh.

– The Kazakh model THE IMPOSSIBLE IS SETTING FIRE TO SNOW (*қар жандыратын*) – celebration of human will against the elements – has the opposite evaluative valence from the English model THE IMPOSSIBILITY OF SUCCESS IS SNOW IN HELL (*not a snowball's chance in hell / the last snowflake in hell*). The same physical impossibility (snow surviving fire) generates opposite figurative evaluations in the two languages: a Kazakh affirmation of human will against the elements, an English admission of the elements' victory. The contrast is one of the most striking value-asymmetries in the comparative material.

Rain, snow, and hail occupy different imaginative territory in the two languages, even when the underlying figurative move – sky falling on the human – is the same. English channels precipitation into the rhythms of office life, social obligation, and verbal assault; Kazakh keeps it closer to the soil and the body, reading the falling sky as abundance, ordeal, or defiance. What the sky gives, each culture receives differently (*алтын жаңбыр*), moral endurance (snow as bed of suffering), and human will against the elements (*қар жандыратын*) [211; 201].

The comparative analysis of the metaphorization of *thunder/lightning* in English and Kazakh reveals the following equivalent and non-equivalent representations:

– *Найзағай* as an adjective (circumstance of action) in Kazakh and the verb *to thunder* in English give expressive colouring to the expression. Kazakh develops a rich adjectival paradigm: *найзағайдай жарқ-жарқ ету* – to shine like lightning; *найзағайдай ойнау* – to play like lightning; *найзағайдай күркіреу* – to thunder like lightning; *найзағайдай қиып түсу* – to cut like lightning.

– English *thunder* and Kazakh *күн күркіреу / күркір* share the basic meteorological reference (the acoustic event accompanying lightning), but diverge markedly in metaphorical productivity. English *thunder* has developed a rich paradigm of voice-authority metaphors – including the metaphorical meanings of condemnation and threats (*to thunder at someone, thunderous condemnation, to thunder against*) – that Kazakh *күркір* does not develop as productively. The English verb *to thunder*, in its metaphorical meaning, describes the process of speaking loudly with the feature of intensity, while Kazakh *күн күркіреу* is anchored to the meteorological event itself and is rarely extended to human speech. The Kazakh language reserves the voice-authority register for other source domains (*тұжырымды сөз, ұлы дауыс*), while *күркір* remains closer to its meteorological core.

– In Kazakh, there are abundant metaphorical comparisons drawn from the military sphere, in which hail and lightning can metaphorically mean bullets and weapons: *бұршақтау, найзағай оғы*. English shares this register only partially (*a bolt of lightning* is occasionally extended to a sudden announcement, but not as systematically as in Kazakh).

– English *lightning* and Kazakh *найзағай* share the core metaphor EXTREME SPEED IS LIGHTNING (the Kazakh material *найзағайлар ұшады табанынан, найзағай секілді жан*). The figurative parallel is one of the clearest in the present material.

– English *a flash of insight / a flash of lightning* has a partial Kazakh parallel in *найзағай жарқылдары* (in the chapter on *найзағай* – lightning flashes in the eyes), but the Kazakh construction is anchored more strongly to the visible glow on the face than to the figurative event.

– The English idiom *a bolt from the blue* corresponds closely to the Kazakh *найзағайдай басқа қайғы*, with both languages sharing the metaphor SUDDEN MISFORTUNE IS LIGHTNING FROM ABOVE. This is the most precise cross-linguistic equivalence in the comparative material. The English *thunderstruck* (rendered speechless by shock) shares a related but distinct transfer in which the auditory phenomenon, not the visual one, is the source domain.

– The English *to steal someone's thunder* (idiom with biographical etymology) has no Kazakh parallel; the Kazakh tradition does not preserve theatre-historical idioms in this way.

– The English *by thunder!* euphemism has no Kazakh equivalent. Kazakh does not use *найзағай* or *күркір* as euphemistic substitutes in oath formulae; the religious-taboo function is realized in Kazakh through other lexical means.

– Conversely, the Kazakh etymological reading of *найзағай* as “sky-spear” (see above) productively unfolds across the warrior-equestrian paradigm in a way that English does not match: English *lightning* carries no etymological martial trace.

Thunder and lightning divide their metaphorical labour differently in the two traditions. English thunder gravitates toward authority and public voice – the booming institution, the forensic pronouncement – a register with deep roots in the King James Bible, where the thunder from Sinai is the voice of God's authority (Exodus 19:16) and "the voice of the LORD is full of majesty" (Psalm 29:4) [214] – while English lightning marks the instant of figurative rupture, the flash of unexpected recognition. Kazakh *найзағай,* by contrast, remains primarily a warrior and an equestrian figure: it strikes the hero, it names the champion, it cuts through the enemy line, continuing an epic tradition in which the horse and its rider-warrior (batyr) are the central heroic pairing of Kazakh oral literature [227], a pairing whose figurative reach into other domains of Kazakh folk and literary imagery has also been documented in recent scholarship on Kazakh paremiology, where comparable heroic and evaluative imagery structures proverbial thought about labour and idleness [228]. The perceptual pair shares its physics; the cultural imagination carries it in opposite directions [229].

The comparative analysis of the metaphorization of thermal lexis in English and Kazakh reveals the following equivalent and non-equivalent representations:

– The English nouns *cold, frost, chill, frigidity, coldness, cool* and the Kazakh *аяз, салқындық, суықтық, үскірік, ызғырық* share the same basic meaning “low air temperature”. English *cold* can mean both light cold and severe cold, and can be associated with both pleasant and unpleasant sensations. As the comparison of semantic structures shows, words with complex semantic structure do not completely coincide in their semantic volume across languages.

– English develops a four-lexeme graded scale (*cool / cold / chill / frost*) where Kazakh develops a two-lexeme scale (*суық / аяз*). Both scales mark intensity, but English allows finer-grained evaluation through the choice of lexeme, while Kazakh achieves similar gradation through compounding (*қара суық, сары аяз, қызыл шұнақ аяз* – chromatic compounds, treated above).

– The metaphor *аяз қысты* (frost squeezed a person) and its synonyms *аяздай батты, қыспаққа алды, жан қинады* realize the metaphor THE FROST IS A PHYSICAL FORCE ACTING ON THE BODY on the basis of the natural property of cold: at low air temperature, objects tend to contract in size. English realizes a partial parallel through *pinching cold, biting cold, the cold gripped him*, but the productivity of the Kazakh *аяз* in this register is significantly greater.

– The English metaphor SOCIAL REJECTION IS COLD corresponds closely to the Kazakh model COLD AS UNFRIENDLY MANNER (*суық сын, суық сөз, суық қол*). Both languages share the underlying transfer; English distributes it across *cold reception, cool greeting, frosty welcome, chill in the room* with finer gradation.

– The English model (SELF-POSSESSION IS COOLNESS) corresponds closely to the Kazakh *суық жігіт* (the cool, self-possessed young man). Both

languages share the positive evaluation of thermal composure, though English develops the model more in the institutional register (officer, sportsman) and Kazakh in the household register (the young man at the dastarkhan). The English noun *coldness* also carries the meaning "endurance, composure, calmness in any conditions", which in Kazakh is rendered through the same metaphor of the disciplined, restrained *суық жігіт*.

– The English metaphorical equivalents of *суық көзбен қарау* (to look with cold eyes) – *frost in her greeting, coldness, coolness, iciness, glaciality, frigidity, hostility, unfriendliness* – represent the closest cross-linguistic equivalence in the present material. The metaphor A SEVERE OR SELF-CONTROLLED PERSON IS COLD is shared by both languages. The English model (MORAL CRUELTY IS COLDNESS) further corresponds to the Kazakh *суық дүние* (cold world, severe and cruel) and *мүсі суық* (the stern, frightening face of the warrior). Both languages mark cruelty through coldness, with English developing a richer lexical inventory (*cold anger, cold antipathy, cold ruthlessness, cold savagery*).

– The English model (SOMATIC SHOCK IS COLD) corresponds closely to the Kazakh *суық сезім* (cold feeling of dread). Both languages anchor fear in the bodily sensation of cold, and both extend the transfer to the news that produces such a sensation: English *cold news*, Kazakh *суық хабар* (news of death or tragedy). The Kazakh *суық хабар* is more lexically conventionalized than its English equivalent, which is typically replaced by *bad news* or *sad news* in conventional English.

– The meaning "illness as a result of body cooling" present in English *cold* and *chill* (*to catch a cold*) is partially shared with Kazakh through *суық тиді*, although the Kazakh construction represents the cold as an active agent that touches the body, while English represents catching as an action of the human subject upon the cold.

– The English noun *frost* carries the metaphorical meaning "failure" (*the play was a frost*) which is absent from the Kazakh *аяз* and *суық*. The Kazakh language does not develop frost as a name for public failure.

– The English model (CREATIVE TRANSFORMATION IS THE FROST OF SORROW) has no direct Kazakh equivalent. The Kazakh tradition develops other models for creative suffering – the disciplined endurance of the warrior, the bed of hardship of suffering – but does not lexicalize the specifically thermal-creative paradox of English *frost of sorrow*.

– The English idiom *cold shoulder* has no direct Kazakh equivalent. The Kazakh tradition signals unwelcome through different means (the absence of the dastarkhan, the cold of *суық қол*). The kitchen-historical motivation of the English idiom is specifically tied to the medieval English household.

– The closest English equivalent to *Аяз ата* is *Jack Frost*, but *Jack Frost* is less productive in contemporary English than *Аяз ата* is in contemporary Kazakh: the Kazakh figure has merged with the New Year tradition, while the English figure remains primarily literary [205].

The comparative analysis of the metaphorization of ice in English and Kazakh reveals the following equivalent and non-equivalent representations:

– The metaphor EMOTIONAL DETACHMENT IS ICE IN THE HEART corresponds closely to the Kazakh model EMOTIONAL STATE IS ICE / ICE-HEART (*мұзжүрек, мұз боп қатқан көңіл, ішіне мұз қату*). Both languages share the underlying transfer, and the Kazakh *жібу* (to melt, signalling return of feeling) corresponds closely to the English *melt the ice*. The same target domain is densely populated in English by metaphors of the source domain ICE: *a heart of ice, ice in his veins, frozen with grief, icy reception, to be iced out, to give someone the cold shoulder, to break the ice*. The Kazakh variant places stronger emphasis on the moment of *жібу* (melting) as the return of feeling, while English emphasizes the moment of *breaking the ice* as the initiation of social contact.

– The metaphor EMOTIONAL CONTROL IS ICY EYES corresponds almost exactly to the Kazakh *мұз көз / мұз көзімен*. Both languages localize emotional defence in the eyes through the same figurative transfer. English has a directly comparable inventory: *icy stare, icy glare, frozen look, to look daggers, to give someone a frosty look*. The metaphor THE GAZE IS ICE is shared by both languages and represents one of the clearest cross-linguistic equivalences in the present material. The Kazakh *қабағында мұз* (ice on the eyelid) has no direct English equivalent and represents a Kazakh-specific elaboration in which the metaphor is anchored to a particular facial micro-zone.

– The metaphor DISTANT BEAUTY IS ICY BRILLIANCE (English: *icy stars*) corresponds closely to the Kazakh *суық сұлулық* (cold beauty – chapter on cold). Both languages evaluate beauty without warmth as a sublime aesthetic value.

– The metaphor FROZEN BLOOD IS FEAR corresponds closely to the Kazakh *жүрегі мұздай болды*. Both languages anchor sudden fear in the bodily sensation of frozen blood.

– The English ice idioms (cuts no ice, break the ice, thin ice, on ice) have only partial Kazakh equivalents. The Kazakh *мұз үстінде тұрғандай* (as if standing on ice) corresponds to English *thin ice*. The other three constructions are English-specific extensions: Kazakh does not develop *break the ice* as a social initiation idiom, does not develop *on ice* as suspension, and does not develop *cuts no ice* as argumentative failure.

– The English expressions icy wastes and devouring ice belong to the English polar-expedition literary tradition (Scott, Shackleton, Franklin) and have no direct Kazakh equivalent. The Kazakh tradition treats ice through the working winter of the river and the lake, not through the polar catastrophe. The asymmetry reflects the different ecological grounding of the two languages: Kazakh ice is the practical ice of the working winter, English ice is the literary ice of the doomed expedition.

– Conversely, the Kazakh moral-ascetic stratum (*мұз бен қарға бауырымды басып, қар төсеніп мұз жастанып* – ice as bed of suffering and moral endurance) has no direct English equivalent. English realizes the same target domain mostly without ice: *to bear one's cross, to walk through fire, to weather the storm*. The metaphor *a cold bed* in English has a different target (loneliness / loss of a partner), not endurance. The Kazakh model ENDURING HARDSHIP IS LYING ON ICE is

therefore a culture-specific elaboration of the source domain ICE, with no direct one-to-one English equivalent.

– The Kazakh idiom *мұзға отырғызып кету* (to leave a person on the ice, to deceive – Borderline) has no English equivalent in the ice register. The cultural memory of the steppe hunt and the fox-and-wolf folktale is specifically Kazakh.

Ice in both languages is cold that has stopped moving – and it is precisely this arrest, this suspension of process, that makes it such a productive vehicle for emotional and social metaphor. But the ice each language reaches for is different ice. English ice comes from the polar expedition and the fairy-tale queen, from a tradition in which the frozen world is sublime and terrifying and remote. Kazakh *мұз* comes from the river in February, from the steppe hunter, from the man who sleeps on snow and survives – ice as the ordinary extreme of a life lived outdoors [208].

Conclusions to chapter 3

The comparative synthesis of the English and Kazakh material presented in this chapter allows us to draw the following conclusions:

1. Both languages share the basic figurative logic of meteorological metaphor: in all five thematic groups the natural phenomenon is projected onto the human being, and the target spheres PSYCHIC WORLD and HUMAN account for 78.5 % of the directions of transfer in English and 63.4 % in Kazakh (Table 11). A number of universal mappings are common to English and Kazakh, among them WIND AS CHANGE / MOVING FORCE, RAIN IS AN ANIMATE AGENT, BLESSING IS RAIN, RAIN IS TEARS, EXTREME SPEED IS LIGHTNING, SUDDEN MISFORTUNE IS LIGHTNING FROM ABOVE, SOCIAL REJECTION IS COLD, THE GAZE IS ICE and FROZEN BLOOD IS FEAR.

2. A systematic grammatical asymmetry underlies the comparison: English meteonyms function both as nouns and as verbs and yield a processual-verbal representation of the phenomenon, whereas Kazakh meteonyms remain nominal and represent it as a substantive force realized through predicative constructions.

3. The number of directions of transfer differs between the two languages (65 in English and 41 in Kazakh; Table 10). English exceeds Kazakh in the groups of atmospheric air masses (21 against 13), precipitation (11 against 8) and, most markedly, ice and freezing imagery (18 against 3); Kazakh exceeds English only in the group of electrical and sound phenomena (9 against 7), while the temperature group is balanced (8 in each language).

4. The English-specific extensions are grounded in the epistemic and respiratory senses of wind (to get wind of, second wind), the cyclical structure of the political storm, the voice-authority register of thunder with its biblical background, the idioms of domestic life and work (to rain cats and dogs, snowed under, cold shoulder) and the polar-expedition imagery of ice.

5. The Kazakh-specific extensions are grounded in the named-organ paradigm (жел өкпе, жел бауыр, мұзжүрек), the equestrian scale of speed (желмая, жел жетпейтін құландар), the chromatic code of intensity, the military imagery of hail and lightning (бұршақтап оқ ату, найзағай оғы), the pastoral reading of rain as

abundance (алтын жаңбыр) and the moral-ascetic stratum of snow and ice (қар төсеніп мұз жастанып).

6. The same physical impossibility (snow surviving fire) receives opposite evaluations in the two languages: it names the hopelessness of an undertaking in English (not a snowball's chance in hell) but the triumph of human will in Kazakh (қар жандыратын).

Thus, the comparative analysis confirms that English and Kazakh meteorological metaphors rest on a shared cognitive basis, while their cultural elaboration diverges: the English material is shaped mainly by moral-religious idiom, literary memory and the maritime and agricultural folk tradition, and the Kazakh material by the nomadic pastoral economy, equestrian culture and the steppe environment [230].

CONCLUSION

The dissertation has examined the metaphorization of meteorological lexis in English and Kazakh on the basis of the British National Corpus, the Corpus of Contemporary American English, the National Corpus of the Kazakh Language and the Almaty Corpus of the Kazakh Language. In the course of the study, over 20 000 concordance lines were analysed and 556 meteonyms were identified, of which 255 belong to English and 301 to Kazakh. The empirical material is presented in four appendices and includes 282 sentence structures from BNC and COCA and 297 sentence structures from NCKL and ACKL. Special attention was paid to the dominant thematic groups: atmospheric air masses (*wind / жел, боран / дауыл, storm / tornado*), solid and liquid types of precipitation (*snow / қар, rain / жаңбыр, hail / бұршақ*), electrical phenomena (*thunder / lightning, найзағай*), air temperature (*cold / суық*) and other natural phenomena (*frost / аяз, ice / мұз*). On the basis of the analysis carried out, the following principal conclusions have been formulated:

1. In both English and Kazakh, the metaphorical application of meteorological terminology is a very productive source of figurative significance. Meteorological phenomena are systematically transferred to human and social domains, and the transfer mechanisms fall into a narrow range of recurrent semantic themes: personal physical and psychological characteristics, social interactions, emotional states, cognitive activities, and material possessions. Although the figurative output differs, the cognitive mechanism that underlies the transfer is the same in both languages: an analogical projection from a perceptually obvious natural occurrence to a more cryptic interior or social one.

2. Three productive sectors provide the majority of meteorological metaphors in the English text. The first is the social and emotional sphere, where words such as cold, chill, frost, and ice denote repressed feelings, moral disengagement, and the lack of warmth in social interactions. In the second domain, which deals with discourse and dominion, lightning stands for the suddenness of revelation or catastrophe, while thunder is the voice from above that demands obedience. The third is the epistemic domain, where wind represents knowledge that travels without being seen, such as a wicked wind, a breeze of transformation, or a catch. The medieval kitchen associated with cold shoulder, the polar journey associated with devouring ice, and the playwright John Dennis associated with stealing someone's thunder are just a few examples of how the English meteorological vocabulary retains traces of a discernible historical context. These expressions continue to serve subtle semantic functions even as the cultural events that gave rise to them fade from collective memory.

3. In the Kazakh corpus, the meteorological metaphor is structured in three dimensions that don't have a direct parallel in English. Initial aspect is equestrian and pastoral theme, where *жел* is the wind that the horse passes and the kulan dissolves into; the highest praise – *жел жетпейтін құлан* – the speed of a wild animal across the huge grassland.

The second is the chromatic line, where *қара жел, қызыл жел, қоңыр жел* and *сары жел* represent not the colors of the wind, but its qualitative features – its intensity, dryness, mildness, duration – and extend this same chromatic logic to storms (*қара боран, ақ құйын*) and rains (*алтын жаңбыр, ақ жаңбыр, тас жаңбыр*). The third is the somatic and characterological line in which *жел өкпе, жел бауыр, желқуар, желаяқ* map the wind onto the inner organs and the human character. The English lexicon has lost the household and pastoral tradition that is still preserved in the Kazakh meteorological lexicon. The most striking example of this is the survival in contemporary Kazakh of over fifteen distinct kinds of snow (*жапалақ қар, ақша қар, омбы қар, сонар қар, үрме қар*) from the working winter lexicon.

4. Kazakhs are nomads and hence the national-cultural peculiarity of metaphorical processes is tightly connected with animal husbandry, especially with horses and other domestic animals. The use of zoomorphic imagery for the characterization of the behavior and character of a person is prevailing, and it was also observed that there are many metaphorical images in the Kazakh language related to the chromatization of natural occurrences, notably those related to the wind.

5. Despite these variations, a number of traits are identical to both languages. In all cases, the privileged location of meteorological metaphor is the human body: in English the cold settles in the stomach, the blood flows cold, the frost bites and has teeth; in Kazakh, *суық тиді, суық өтті, денеге суық жүгірді* the cold touches, passes through, and runs across the body. In both, animal imagery is important; domestic and wild animals (cow, lamb, dog, cat in English; horse, camel, kulan, wolf in Kazakh) are used as inspiring images for naming wind, rain, and snow. In both cases, the metaphorization is mostly one-way from the natural to the human, not the other way round: meteorological phenomena are projected onto persons, characters, social relations and emotions, whereas the opposite direction (the projection of human qualities onto the weather) is comparatively rare and largely limited to personification.

6. Ice is employed in rather different ways in the two languages. English ice is above all the language of emotional detachment: the icy love that gives back nothing, the ice stuck in the heart, the icy eyes that close the self off, the frozen stars whose beauty preserves its distance. Alongside this main emotional register a reduced idiomatic cluster (to cut no ice, to skate on thin ice) generates the sensation of futility and risk.

Kazakh *мұз,* by contrast, extends in three directions that English does not share. Beside the emotional register common to both (*мұзжүрек, жүрегі мұздай* – the frozen heart of fear or grief), Kazakh develops a distinctive moral-ascetic stratum in which lying on *snow* and *ice* (*мұз бен қарға бауырымды басып, қар төсеніп мұз жастанып*) signifies endurance and disciplined self-possession – the cultural ideal of the *сабырлы, салмақты* person. Equally distinctive is the positive-evaluative use of *мұздай* as an intensifier of completeness and flawlessness: *мұздай киіну* (impeccably, faultlessly dressed) and *мұздай қарулану* (fully, thoroughly

armed) draw on the smoothness and wholeness of the frozen surface rather than on coldness. Kazakh *ice*, therefore, is not confined to the negative pole of emotional withdrawal; it also names moral strength and impeccable wholeness.

7. Personification is productive in both languages: natural agents such as *wind* and *rain* are depicted as sentient actors endowed with human emotion or will – English develops the *wind* that sighs and the rain that weeps, while Kazakh elaborates an especially dense cluster of agentive wind imagery (*ұры жел* the thief-wind, *долы жел* the raging wind, *құтырған жел* the maddened *wind*, and the *wind* as a howling predator of the steppe). Alongside this shared mechanism, Kazakh metaphoric thought exhibits a marked spatial sensitivity: numerous expressions reveal an acute perception of space, landscape, and the physical environment – metaphors conveying the filling of space, continuity, or the awareness of emptiness. English, for its part, employs a wide range of household and material metaphors – *bag, helm, sock,* and *belt* in the context of wind, or blanket, cap, and carpet in the context of snow – suggesting a domestic, object-centred conception of the weather rooted in everyday material culture.

8. The semantic positivity of "rain" in Kazakh is another specific feature. Though in both languages rain can mean "a large amount", in Kazakh it often implies an abundance of positive things – fertility, blessing or renewal. When word is attached to negative meanings it often expresses an attitude of melancholy rather than a happening. Similarly, some of the positive connections with ice are surprising to Western culture, who tend to think of ice as a sign of coldness or estrangement.

9. The main national-cultural peculiarity of the English material is threefold: in the unusually rich layer of moral and religious idioms (cold as charity, cold comfort, the wind of God), in the systematic somatic anchoring of feeling (the body as the locus of registering cold before the mind names it), and in the literary and folkloric reservoir of named winds (Robin Hood`s wind, Billy Wind, Helm wind). The main national-cultural characteristic of the Kazakh material is color distinction of meteorological events, equestrian interpretation of wind speed, and strong relationship of wind to the inner organs as a vocabulary of moral and characterological judgment.

10. The asymmetry between the two languages – the English material concentrated in the standard urban registers documented in BNC and COCA, the Kazakh material distributed across the literary, fictional, journalistic and folk registers documented in NCKL and ACKL – is itself a finding: it reflects the different histories of the two language communities and the different positions that meteorological vocabulary has come to occupy within them. The comparative analysis of figurative meteorological lexis and phraseology of the two languages, of metaphorically motivated names of meteorological processes allows us to identify the universal, general-cultural and national-cultural-specific features in the figurative reflection of ideas about the world around us.

11. The application of MIP/MIPVU to Kazakh material involved two adaptations. Since the Kazakh simile marker is the suffix -дай / -дей rather than a separate word such as like or as, direct comparisons had to be identified at the

morphological level (мұздай су құйғандай); and since Kazakh meteonyms are nominal and do not function as verbs, the unit of analysis was extended from the single word to the predicative construction or compound in which the figurative meaning is realised (жел тиді, аяз қысты, жел өкпе). At the same time, the procedure showed its limits: the layer it excludes from the count of metaphors (Table 12) – folk and terminological names (Robin Hood's wind, the Cape Doctor; the colour-coded қара жел, қара боран), fossilized idioms (to steal someone's thunder; мұзға отырғызып кету) and reverse transfers of the type BODY → WEATHER (eye of the wind, thunderhead, frostbite) – is comparable in size to the productive inventory (52 units in English and 31 in Kazakh) and is precisely the layer in which much of the national-cultural specificity of the two languages is concentrated. A procedural identification of metaphor therefore has to be complemented by an ethnolinguistic description of this borderline layer, which is the approach adopted in the present study.

The structural and semantic features of meteorological metaphors have been defined on the basis of corpus data, the motivational features and mechanisms of metaphorical transfer have been analyzed, the dominant metaphorical transfers in the meteorological lexis of both languages have been located and the national-cultural peculiarities of meteorological metaphors in the two linguistic traditions have been compared and interpreted in the comparative perspective. Theoretically the study supports the cognitive notion that metaphor is not an ornament of speech but a method of conceptualization, through which abstract realms of human experience are arranged by analogy with more tangible and perceptually accessible ones.

Methodologically, the study confirms that the corpus-based extraction of metaphors, when combined with ethnolinguistic interpretation, yields results that no single approach could produce on its own: the corpus supplies frequency, distribution, and authentic context; the analytical framework supplies the directions of transfer; the ethnolinguistic perspective supplies the cultural memory in which each idiom is embedded.

The results of the present research may be applied in several practical directions. The materials of the study can be used in the methodology of teaching English and Kazakh as foreign languages, since the analysis of metaphorical meanings in weather-related vocabulary enriches the learners' linguocultural competence and supports intercultural communication. The developed algorithm for corpus search and metaphor extraction may serve as a reproducible model for further corpus-based research on figurative language. Corpus-based approaches to the teaching of meteorological lexis and foreign languages developed in the course of this research are presented in the author's publications [231; 232].

The results, particularly the corpus analysis of meteorological metaphors, can be used in the compilation of an electronic dictionary of metaphors with interpretative and explanatory data, as well as in a bilingual or trilingual English-Kazakh-Russian metaphorical dictionary integrating phraseo-meteonyms,

etymologies, references to geography and mythology, and examples of usage in speech, literature, and various discourse genres.

Sociocultural and environmental determinants of meteorological metaphor remain largely underexplored. Climatic and geographic contrasts – the humid, insular landscapes of the United Kingdom versus the vast, semi-arid steppe of Kazakhstan – play a significant role in shaping these metaphorical systems, yet they are rarely discussed explicitly. The abundant animal imagery (e.g., horse, cow, lamb, bird, cat, dog in English; horse, camel, and wolf in Kazakh) suggests a deep anthropomorphic understanding of weather as a living force and invites further ethnolinguistic investigation.

The significance of this thesis is determined by the fact that, on the one hand, metaphor is a significant part of the language fund that requires further study, and on the other hand, comparative research on metaphor in Kazakh and English meteorological vocabulary remains limited. Meteorology is an important thematic group since it refers to the phenomena and processes that everybody, regardless of nationality or geographic location, experiences on a daily basis.

The metaphor especially vividly conveys the originality and uniqueness of culture, life of people, in which new images, associations, and comparisons for the same meteorological phenomenon are traced; therefore the identification and analysis of meteorological metaphors is relevant and necessary for the disclosure of linguocultural features and the national character of the people. Metaphor is a universal concept that relates to culture, literature, reality and other areas. It is humanity's way of thinking, a tool we use to get to know the world. Metaphor lives with us and helps us build the real world.

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Appendix A

Meteorological lexis of the English language

Wind (67)	seven sheets to the wind	**Rain (36)**
a straw in the wind	shoot the breeze	a rain of
bad (short) wind	take the wind out of	a rain of ashes
before (down) the wind	take the wind out of someone`s sails	a rainy day
between wind and water	the four winds	a risk of showers
Billy wind	the teeth of the wind	cloudburst
broken wind	the wind	come rain or shine
candlemas eve winds	three o'clock wind	deluge
cape doctor	throw caution to the wind	downpour
cat's nose	to be in the wind	drizzle
change of wind	to catch the wind in a net	heavens open
close to the wind	to get the wind up	in the rain
eye of the wind	to hang in the wind	it never rains but it pours
financial windfall	to have/put one's finger to the wind	it rains chicken coops
fishtail wind	to the wind	it rains darning-needles
fly (go) to the winds	to wind oneself/one's way into smb.'s trust/affection	it rains pitch forks
full of wind	to wind smb. around one's little finger	never rains but it pours
get (recover) one’s wind	twisting in the wind	pouring rain
get wind of	two (or three sheets) to (in) the wind	rain cats and dogs
get your second wind	whistle in the wind	rain check
gone with the wind	wind up	rain comes down in sheets
Harmattan	wind between wind and water	rain gifts
helm wind	wind down	rain on parade
horse latitude antycyclon	wind of a pay increase	rain on someone`s parade
in the wind	wind of a scandal	rain out
it is an ill wind	wind rose	raindrop in the drought
knock the wind	wind sock	rainfall
lose one’s wind	wind someone round your little finger	rainhead
maestro	windbag	rains hammer-handles
northern nanny	windfall	rainstorm
piss in the wind	windward face	right as rain
puff of wind		save for a rainy day
put the wind up		take a rain check
raise the wind		the rain falls on the just and the unjust
Robin Hood wind		to fall like rain
sail close (near) to the wind		to pour cold water on/over smth/to throw cold water on/over smth
second wind		walking in the rain
Snow (30)	**Storm (42)**	**Cold (40)**
blanket of snow	a storm is brewing	a cold fish
corn snow	a storm of bullets	a cold scent

heavy snow old woman is plucking her goose rain or snow showers snow cap snow grains snow job snow pellets snow-bird snow-bound snow-capped snow-clad snow-covered snowdrift snowdrop snowfall snowflake snowflake in hell snows of yesterday snowstorm snowy the snows of yester-year to be caught in the snow to be snowed in to be snowed up to have a snowball's chance in hell watermelon snow welcome as snow in harvest white as snow	a storm of missiles a storm of protest a whirlwind or dust devil any port in the storm barber at sea barber pole black storm bull's eye squall calm before storm castle assault cow quaker cow storm dust-devil engage in a storm eye of the storm flanders storm frog storm go down a storm gosling blast gosling storm gowh's storm gowk storm hulda hurly-burly kick up a fuss/storm lamb storm lull before storm May storm mother carey squall storm in teacup storm of arrows storm-troops storming at stormy relationship take by storm teeth of the gale to storm out of the room to storm the castle weather a storm	blackthorn winter blow hot and cold chill of a time. chill of fear chill to the marrow chilled to the bone cold as charity cold blood cold comfort cold feet cold fit cold hands, warm heart cold heart blooded cold hearted cold of a treatment cold of an address cold sore cold sweat cold turkey cold war cold water cure cool as a cucumber cool as a custard cool down cool of a glance cool of a greeting cool of a reception cool one's heels cool-headed give the cold shoulder grow cool in cold blood look cool upon make the blood run cold throw cold water on to give somebody cold shoulder/to turn sb a cold shoulder tongue of cold air took cold feet
Other folk weather names (3) ban-gull dimon dust	**Hail (2)** hail of missiles hail showers **Rainbow (2)**	**Ice (7)** as chaste as ice black ice ice tongue

out smb.	chase rainbows rainbow	like a hog on ice to be on ice to be on the thin ice/to skate on thin ice to keep sb/sth on ice/to put sb/sth on ice
Thunder and lightning (12) beaded lightning black as a thunder blood and thunder fork lightning lightning strike pearl-necklace lightning ribbon lightning rocket lightning sheet lightning the thunder of cannon thunderhead thunderstorm	**Frost (14)** a black frost dead frost frigidity of a climate. frigidity of a glance. frigidity of a treatment frigidity of a woman frigidity of actions frost burns the face frost licks the face frost smoke frost work frosty welcome Jack frost killing frost	

Appendix B

Meteorological lexis of the Kazakh language

Жел (Wind) (95)	жел-аяқ (жел табан)	сұғанақ жел
азынау жел	жел-құз	тау желі
айдарынан жел есу	желайдар	тентек жел
алтын күрек	желбағар	теріскей жел
аңызақ жел	желбезек	теңіз желі
бүлк-бүлк желу	желбесік	ыстық жел
ебі жел	желбұйда	ықтырма жел
ескек жел	желбөгет	қайтыс жел
еспе жел	желге кетті	қаламның желі бар
жайдақ жел	желдей есті	қара жел
жастық желі	желдей зулады	қарыма жел
жатаған жел	желемік жел	қоңыр жел
жел ауыз	желең жел	қума жел
жел бас	желкем	қызыл жел
жел бастық	желкөкірек	үрме жел
жел бауыр	желорай	әйелдің қары күлегеш баяу жел
жел бақай	желсаңлақ	өкпек жел
жел беру	желі оңынан тұру	өксік жел
жел болып тию	желім ауыз	өткір жел
жел буаз	желқабаз	өтпе жел
жел бітті	желқом	
жел бүйрек	желқуар	
жел жағынан жүргізбеді	желқұйрық	
	желөсек	
жел жетпес	жеңіл жел	
жел жұту	жоғары жел	
жел көңіл	жібек жел	
жел мінезді	заулама жел	
жел саңлақ	керімсал жел	
жел сөз	кеудесіне жел біту	
жел табан	күн тигізбей, жел тигізбей	
жел тимес	көлденең жел	
жел қабамыз ма?	көңіліне жел біту	
жел қарысты	майда жел	
жел қарысу	мырза жел	
жел қағу	самал жел	
жел қақты	сары жел	
жел қуық	саумал жел	
жел өкпе		
Боран / дауыл (Storm) (56)	дауыл үйіру	**Мұз (Ice) (62)**
ала қаншық	долы боран	ақ көк мұзда
	жаяу боран	бұлт шайнап, мұз бүрікті

ала құйын
алай-түлей боран
алақаншық боран
аяз-боран
ақ боран
ақ борандай долдану
ақ борандай сойқан салу
ақ түтек боран
ақ түтек борасын
ақ шұнақ боран
ақ құйын
аққұйрық боран
боз борандай бұрқақтау
боран-моран
боран-шашын
боран-шашынсыз
борандай бұркау
борандай ұйтқу
боранды жел
боранды-шашынды
борасын
борасынды
бұрқан
бұрқана соққан борандай
бұрқасын
бұрқасынды
бұрқақ
дауыл боран
дауыл соққандай
дауыл тұру
дауыл қуу

жаяу борасын
жаяу бұрқасын
жел құйын
көк дауыл
майлы боран
сар даланың боранындай
ескектеу
сұрапыл боран
тас боран
тентек боран
түтек
ызғырық боран
қаптаған қара борандай
қара боран
қара дауыл
қара құйын
қарлы боран
қарлы дауыл
құбыладан соққан борандай құйын
құм боран
үскірік боран
ұйытқыма боран

Суық (Cold) (13)

салқын жел
салқын тиді
суытып кетушілік
суығына тонды, ыстығына күйді
суық көзбен қарады
суық қолын сұқты
суық сөз
суық қолын сұғу
суық ұстады
ызғырық
ызғырық жел
үскірік
үскірік жел
үскірік суық

жамбасына батқандай
жерге (мұзға) отырғызып кету
жүрегі мұз
жүрегі мұз болды
жүрегі мұздай
жүрегін мұз
жүрегіне мұз жасады
жүректің мұзын балқытты
ине мұз
кірпігіне мұз тоңды
кірпігіне мұз қатты
көк мұзға отырғызды
көкмұз
мұз арқалап, күл төгу
мұз байланды
мұз бел
мұз бұзылды
мұз жүрек
мұз көшкіні
мұз топаны
мұз қара
мұз қара көк
мұз қату
мұзайдын, мұзбалық
мұздай аман
мұздай киіну
мұздай қара көк
мұздай қарулану
мұздай өтірік
мұздақтану
мұзды балақ
мұзды жер
мұзды қанды көз
мұздыаяқтану
мұздықаралық
мұзжүрек
мұзойнақ
мұзсарғалдақ
мұзсүңгі
мұзтау
мұзхана
мұзға отырғызып кету
мұзқашыртқы

		мұзқурсау от кешіп, мұз төсенді от шайнап, мұз бүрікті саусақ мұз тас жастанып, мұз бүркенді тақыр мұзға отырғызды түйені мұзға жетелеу түптік мұз төрттік мұз басу дәуірі шілдеде мұз қатырған ықпа мұз ішке мұз байланды іші мұздай ішіндегі мұзы ішіндегі мұзымырза жел ішіне мұз қату қабыршақ мұз
Аяз / қырау (Frost) (33) сақылдаған сары аяз Аяз ата аяз бетті жалап барады аяз сору аяз сыну аяз сүю аяз қару аяз қысты аяз қыстың ызғарлы суығы аяз қысу аяздай батты аязсы аязшал ақ аяз боз қырау көк аяз сары аяз сақылдаған аяз сақылдаған сары аяз тымырсық аяз шымшыма аяз шыңылтыр аяз шұнақ аяз	**Найзағай (Lightning) (26)** ақ найза болат найза жала-улы найза күмбезді найза көз бұршағы найзағайдан көк найза найза жұмсау найза кірпік найза лақтыру, найзатас найзадай тез найзағай жалт етті найзағай нөсер найзағайша найзағай түсті найзағайдай жарқ-жұрқ ету найзағайдай күркіреу найзағайдай ойнау найзағайдай сызу найзағайдай тию найзағайдай тулау найзағайдай қиып түсу найзағайдың отындай шаншылу	**Бұршақ (Hail) (16)** атбас бұршақ бұршақ биті бұршақ бітесі бұршақ бұйра бұршақ дәнділер бұршақ соғу бұршақ тұқымдасы бұршақ қоңызы бұршақ ұрды бұршақ-бұршақ бұршақтай жаудырып жібе рді бұршақтар тұқымдасы дәнді бұршақ дақылдары көз бұршағы көзінің жасын бұршақтай домалатты қалың бұршақ

қабағына қырау қатты қабақта қырау еру қызыл шұнақ аяз қырау басу қырау сақал қырау қабақ қыстың көзі қырау қытымыр аяз құрғақ аяз үскірік аяз	найзағайлы найзағайлы дауыл найзағайша көкті тілу найзағалы дауыл оқ найзағайша көкті тіліп	

Appendix C

Sentences with meteorological lexicon from BNC/COCA corpus

The group headings indicate the section of Chapter 2 in which the examples of each meteonym are analysed. The status of every example is marked: M – metaphorical use (for examples quoted in the chapters, the section and sphere are given); L – literal use; S – simile; Mt – metonymy; H – homonymy; F – fossilized idiom or formula; T – terminological or colour-coded nomination; R – reverse transfer; B – insufficient corpus attestation. Only the examples marked M are counted in Table 5. Of the 282 examples, 205 are metaphorical (M), 50 literal (L), 10 similes (S), 8 fossilized idioms or formulas (F), 4 metonymic (Mt), 4 homonymous (H) and 1 reverse transfer (R).

Wind (41) – Section 2.1

1. [… The *wind talks and whispers and sings*, wind has many voices …] – M
2. [… He could hear the *noise of the wind* and the sea, but not the engines …] – L
3. [… But then he opened the door, and his words *were lost in the wind* …] – L
4. [… The *wind was screaming* and shaking the big windows, and Thomasin Darling had to shout …] – M
5. [… Daniel had lost his coat, and *the wind cut through* his thin shirt like a knife …] – S
6. [… ‘With God's help and *the wind behind you* …] – L
7. [… At last the *wind turned the ship* towards me and now I cut all the way through the rope …] – L
8. [… *Then the wind, with sudden violence*, turned the Hispaniola, and my little boat with it, and we were both sailing fast into the open sea …] – L
9. [… The square, when they reached it, was *full of wind and flying* dust …] – L
10. [… All I can do is lie in bed, listening to the *howling wind* and staring at the grey northern sky. …] – M
11. [… *A strong wind sang* sadly as it bent the trees in front of the Hall …] – M
12. [… Yes, it's an *ill wind blows* nowhere, he repeated …] – M
13. [… It was a wild, forsaken road, now winding through dreary pine barrens, where the *wind whispered mournfully.....*] – M
14. [… How can it be otherwise, when a system prevails which whirls families and scatters their members, as the *wind whirls and scatters the leaves* of autumn? …] – S
15. [… “Hallo! you Cass! “said Legree”, *what's in the wind* now? …] – M
16. [… bells, the Lincoln, Acton, Bedford, or Concord bell, when the *wind was favorable* …] – L

17. [… As I walked over the long causeway made for the railroad through the meadows, I encountered many *a blustering and nipping wind* …] – L

18. [… I should run for my life, as from that *dry and parching wind* of the African deserts called the simoom …] – L

19. [… foundations of the mountain were in danger from *the fury of the winds* …] – M

20. [… With renewed talk of *winding down* both military alliances some ministers believe Nato must avoid stating the obvious …] – H

21. [… Powers claimed by the Home Secretary to intervene over the content of programmes would radically alter the constitution of broadcasting, Mr Anthony Lester, QC, told the Court of Appeal yesterday *in winding up* an appeal against the High Court refusal to outlaw restrictions on interviews with named groups, including Sinn Fein …] – H

22. [… Now that *winding windows* are fitted and a hardtop is offered, BMC ought to provide locks for the doors …] – H

23. [… It was a year since he had come up this steep, *winding avenue* …] – H

24. [… Short of the holocaust, when everything will be blown away on the *wind of oblivion* …] – M

25. [… A fresh *wind of educational change* can so cause for human rights and the *wind of democratic change* blowing over the continent of Africa …] – M

26. [… 'I have felt the *wind of the wing* of madness' …] – M

27. [… Even with the *wind of generosity* at their back …] – M: 2.1, "The divine influence of Wind"

28. [… The *wind of God* certainly blew on that man …] – M: 2.1, "The divine influence of Wind"

29. [… The legal process is *long winded*; it can outlast the life of the patent. *Catching wind of the disturbance* …] – M: 2.1, "Storm as military aggression"

30. [… At Talgarth they *got wind of skirmishes* in the south …] – M

31. [… When Charles *got wind of* a threatened attack on her by Pippin and his men …] – M

32. [… *get* wind of *the non-existent secret's* …] – M

33. [… *a wind of change* is blowing …] – M: 2.1, "Wind as a political and social change"

34. [… I seek the *wind of a word* …] – M: 2.1, "Wind as concept and inspiration"

35. [… rocked in a *wind of thorns* …] – M

36. [… it would be worse than Amazon House finding out if she *got wind of what's going on* …] – M

37. [… the ripples allowed the Ardakkeans to *get wind of the theft* …] – M: 2.1, "Wind as a path to discovery"

38. [… He lay there for a moment, stunned, *winded*, waiting for a message from his numbed brain …] – Mt

39. [… So were one-legged soldiers, women bent double with rheumatism, gouty noses, coughing children, broken arms, wasted goats and *winded horses* …] – Mt

40. [… Not my *stomach winded*, not my nose bleeding …] – Mt

41. [… The employers, initially taken by surprise at the pace of developments, regained their *second wind* …] – Mt

Rain (37) – Section 2.2

1. [… So Daniel and Thomas Buchanan followed the old lighthouseman away from the warm kitchen fire, out *into the rain and wind again* …] – L

2. [… *The wind rushing up* the river shook the whole building, and the rain beat violently against the windows …] – L

3. [… *The wind and rain* beat down on me, and I fell down several times, but finally I arrived at a long, low house, standing rather isolated in the middle of the moor …] – L

4. [… *The wind and rain* arrived …] – L

5. [… and the sun's brightness fade, and the *winds would sigh humanely*, and the *clouds rain tears* …] – M

6. [… Useless to list her achievements under this *acid* rain of *self-destruction*… …] – M: 2.2, ": Acid rain symbolizing the moral decay"

7. [… This combination of Infirmary League and Friendly Society was a good insurance against sickness but, of course, there were always those who never provided for the *rainy day* …] – F

8. [… The film was a western, and the moment John Wayne walked onscreen *a* rain of *knives* traversed the auditorium and killed his image…] – M

9. [… Better that Aretha Franklin had not been born than that we should endure a drop more of this *acid* rain of *spittle*! …] – M: 2.2, ": Acid rain symbolizing the moral decay"

10. [… Unable to get to our treasure, they were decimated by the *rain of* bolts our forebears showered down on them from the tower of this church …] – M

11. [… Strike us with the *rain of* your arrows …] – M

12. [… running before the wind to escape from the increasingly heavy *rain of* ashes …] – M

13. [… to do about the *rain of* megatonne weapons that was being dumped on their ratepayers …] – M

14. [… *Rain of* terror …] – M

15. [… by the *acid* rain of *modern legal values* …] – M: 2.2, ": Acid rain symbolizing the moral decay"

16. [… a brown *rain of spawn* falls sporadically from as high as twenty feet …] – M

17. [… *in a* rain of *sparks* and blackened timber and from the road came the terrifying …] – M

18. [… subjected them to a blistering *rain of* sarcasm...]. …] – M

19. [… feed on the *rain of debris* from above …] – M: 2.2, “Rain as mass descent”

20. [… You've heard of a *rain of* diamonds? …] – M

21. [… in a *rain of missiles*, with fire sizzling around him …] – M

22. [… BILL BRITTON won his first PGA Tournament without hitting a ball yesterday when the final round of the $750,000 Tallahassee Classic *was* rained *out* …] – L

23. [… *bombs rained on* …] – M

24. [… Earlier, eight people died when fire *rainedon* the city's crowded streets …] – M

25. [… Eleven people on the ground died as wreckage *rained* down …] – M

26. [… Bricks *rained* around him, crushing him into the street …] – M

27. [… but he curled up into a ball to save himself *as punches and kicks rained down* …] – M

28. [… FIVE cricket fans, refused a ticket refund when an England *game was rained off*.....] – L

29. [… and *ash rained down* on them so steadily …] – M

30. [… shredded paper and confetti *rained on* the players from skyscrapers …] – M: 2.2, “Rain as mass descent”

31. [… ‘For some weeks it *rained gold boxes’* …] – M

32. [… Glass and doughnuts *rained around me* …] – M

33. [… Their challenge meeting away to Wolverhampton this evening has been *rained off* …] – L

34. [… *Rain is threatening to wipe out* more meetings later this week …] – L

35. [… ‘Church is *raining booze’* …] – M

36. [… That'll bring the bruising out and the ankle will *be as right as rain* in a week or two’ …] – S

37. [… The *rain crashed* against the windows, and the *wind screamed* like an animal in the night …] – L

Snow (16) – Section 2.2

1. [… I read it late one night when the *wind was screaming* round the house, blowing snow against all the windows, and sometimes I was afraid …] – L

2. [… A *sharp wind whipped* the fallen snow up into the air and blew it into every hole and corner …] – L

3. [… Outside I could hear the *wind driving the snow* against the window …] – L

4. [… I have occasional visits in the long winter evenings, when the snow falls fast and the *wind howls* in the wood …] – L

5. [… Driving snow, *a wind that cut like a white-hot knife*, and darkness had forced them to grope for a camping place …] – L

6. [… I was alone; even Liza looked on as the *snowballs rained down* …] – L

7. […*I'm* snowed *under* with work and I've taken too much time off to be with you …] – M

8. […Dear Santa, I'd like a piana or some leggo Old Red Cheeks gets *snowed under* every year with letters from children …] – M

9. […My boss is still *snowed under* with work that we haven't really focused on correcting the kinks of our …] – M

10. […Thank God,' cried *Snow* White, 'Dopey is still alive …] – F

11. […Suddenly a wall loomed up before him, its top hidden by the *swirling* snow …] – L

12. […Harvey's casts were *as white as* snow …] – S

13. […Only the carpet of *snow* relieved its drabness, and that was being rolled up by a man driving a small tractor with a scoop on the front …] – M

14. […They crossed another yard, where hulks of obsolete machinery crouched, bleeding rust into their *blankets of* snow, and entered a large building with a high vaulted roof hidden in gloom …] – M: 2.2, "Snow as domestic covering"

15. […He is always on the lookout for a' *snow job'*, impatient with evasion and imprecision, and relentless in his determination to …] – M

16. […love to be wrong about Windows 8 but after reading about surface pricing the *last snowflake in hell* was just pissed on …] – M

Storm (87) – Section 2.1

1. […However, there were no signs of any abatement of the *political storm* after the mysterious appearance …] – M

2. […*After the storm of the breakdown*, Europe is in a period of convalescence …] – M: 2.1, "Storm as social conflict and crisis"

3. […The company announced the scheme in August, and has had *to weather a storm of objections* from shareholders and managers. But Mr Tait described the row as *a storm in a teacup* …] – M

4. […During the first film, Storm Over the Nile, there is such *a storm of noise* in the cinema …] – M

5. […She is pictured with sous chef Mark Jordan *whipping up a storm in the kitchen* …] – M: 2.1, "Storm as creative force"

6. […MARGARETE Buber-Neumann lived and suffered much *in the eye of the stormof history* that tore Europe apart …] – M

7. […Their book caused *a storm* in America last year …] – M

8. […notably when Ireland toured there in 1981 amid *a storm of public and governmental condemnation* …] – M

9. […There were picnics, parties, theatricals – '*a perfect storm of unending pleasure'* wrote Count Henry Russel …] – M

10. […True, I'm at the rear, but I enjoy the scenery; the chats with spectators and *I storm in.* …] – M: 2.1, "Storm as strong advance"

11. […March meets mob violence governor faces *storm of abuse* . …] – M: 2.1, "Storm as criticism and verbal assault"

12. [… Hitler was by no means altogether excluded from the *angry storm of criticism.* …] – M: 2.1, “Storm as criticism and verbal assault”

13. [… she was suddenly lashed by a *storm of hysterical accusations.* …] – M: 2.1, “Storm as criticism and verbal assault”

14. [… is at the centre *of a drugs storm* in Germany. …] – M

15. [… This unleashed such *a storm of protest.* …] – M

16. [… it provided no warning of the *storm of anger and abuse* which my series of articles …] – M

17. [… who could whip up *a storm in her heart.* …] – M

18. [… And all that time, Franca contained in her breast *a storm of anguish and violence so.* …] – M

19. [… When they came to the apartment, Mary-Claude was *cooking up a storm in the kitchen* …] – M

20. [… We must look at the fear with our eyes and heart, and begin to bring calm to *the storm of our emotions* …] – M

21. [… I was a port in the *storm of a marriage* to which, fundamentally, he was totally committed …] – M

22. [… He was the first star to *weather the storm* of a dope scandal …] – M

23. [… He had entered the police station in a *storm of self-righteous protest* …] – M

24. [… The second created a *storm of controversy* …] – M: 2.1, “Storm as criticism and verbal assault”

25. [… The same month the *storm of strikes* at last abated in a gathering storm of discontent …] – M: 2.1, “Storm as social conflict and crisis”

26. [… But to hear *the storm of applause* with which …] – M

27. [… Green Shopping Day at the last minute amid a *storm of publicity* over its tuna fishing methods, which were allegedly killing dolphins …] – M

28. [… ‘It has been creating *a storm of interest* at department stores all over the country …] – M: 2.1, “Storm as a collective response”

29. [… to be greeted with a *storm of ecstasy* or alternatively of appalled disapproval, which lasted for many decades …] – M: 2.1, “Storm as a collective response”

30. [… Fond memories of Jerry Lee Lewis who blew up *a storm of indignation* in the 1950s, not to mention Presley …] – M

31. [… Francis Ford Coppola's Apocalypse Now (1979) arrived amidst *a storm of publicity* …] – M

32. [… Baldwin was uneasy about the reaction to the so-called pact, and became more so as a violent *storm of influential criticism* burst over his head …] – M

33. [… *A storm of rage shook her* …] – M: 2.1, “Storm as rage doing on the body.”

34. [… *A storm of pain* ripped through her like the indigo fingers of a tornado and carried her out on to a midnight sea …] – M

35. [… Lloyd George had weathered *the storm of labour unrest* …] – M

36. [… There are a few minutes, perhaps not more than three or four, when I exist in a bewildering *storm of hope, joy, incomprehen-sion and dread* …] – M: 2.1, “Storm as the climax of emotional overload”

37. [… Moving like ants in a sand-trap we gasped slowly up the near-vertical rim of the secondary crater, into a *storm of ash* which masked the gathering dawn …] – L

38. [… Sadly, they turned to leave, and when they had gone, Nancy fell to the ground in *a storm of tears* …] – M

39. [… My supper flapped off round the corner *in a storm of feathers* with the blood coming out of the side of its beak …] – M

40. [… Everyone started talking at once, and Mr Appin found himself in *a storm of angry questions* …] – M

41. [… In his wake, a blizzard of wind and sleet, like *a storm of human souls* …] – S

42. [… all away in a prodigal *storm of confettiand rice*? …] – M

43. [… He began to cry in earnest, abandoning himself to *a storm of weeping, sobbing against his folded arms* …] – M

44. [… When *a storm of rare violence* blew up the mariners …] – L

45. [… All she could see before a whirling *storm of foam* obscured everything were attitude control thrusters …] – M

46. [… after he had destroyed the Highlands in *a storm of hailstones* and fire …] – L

47. [… giving ten minutes of comparative quiet before another *storm of quick-changes* and *running repairs* …] – M

48. [… Bouncing along the rubble track, you arrive in the midst of *a dust storm of your own creation* …] – L

49. [… a fierily hollow quivering, the force at the centre *of a storm of sensation* …] – M

50. [… After a while, that first *storm of angry passion* seemed to dissolve …] – M

51. [… The sensations she had experienced in Bruges were mere frissons compared with this *storm of need* …] – M

52. [… In this *storm of righteous indignation* few commentators made the important but disheartening point that …] – M

53. [… His mouth covered hers *in a storm of intemperate kisses* and then his head lowered …] – M: 2.1, “Storm Intensity of positive emotion and enthusiasm”

54. [… primeval need which united them almost at once in *a storm of love* and need as fierce as the one which raged, unheard, outside …] – M: 2.1, “Storm Intensity of positive emotion and enthusiasm”

55. [… a rotary *storm of collective fulmination* conjures up generally-agreed ‘solutions’ for the British Fall …] – M

56. [… before *the storm of the Reformation* razed its holy places …] – M

57. [… Great calm before *a storm of pain* …] – M

58. [… ‘It's not too much to say it's the *storm of the century*,’ said Joe Friday, director of the National Weather Service …] – L

59. [… The clouds were beginning to break, revealing *a storm of stars* across the heavens. …] – M

60. [… *A storm of laughter arose* and even the tiniest child joined in’ …] – M

61. [… It's a great power to be very physical, to be able *to storm through life* with swaying shoulders, instead of creeping and just relying on your thesaurus …] – M

62. [… The voice surveyed the wasteland it had made and *stormed away* …] – M: 2.1, “Storm as angry departure”

63. [… The Weem women have not been behind-hand they would have *stormed Castle* …] – M

64. [… who *stormed* onto the women's pro tour at the age of 14 last year …] – M

65. [… Lennox Lewis, the British heavyweight, *stormed to anotherthrilling* …] – M

66. [… After In-Keeping, the 11-10 favourite, *had stormed to a five-length success* …] – M: 2.1, “Storm as strong advance”

67. [… ‘These are typical stupid decisions by anti-angling politicians,’ *stormed* Rugby …] – M

68. [… Some *stormed* across in jubilation, others in a mood closer to melancholy …] – M

69. [… The meeting dragged into the early hours of yesterday morning as the Honduran President, Mr Jose Azcona, *stormed out* of the session after …] – M

70. [… ‘But that was a very precious jewel!’ *she stormed* …] – M: 2.1, “Storm as angry departure”

71. [… Gloucester after Saturday's match at Kingsholm were left feeling just as impotent and just as confounded after Bath had *stormed away* in the last five minutes of extra time to win this semi-final …] – M

72. [… And Hulme *stormed back*, ‘But using ‘sexual harassment’ to describe someone who says ‘Phwooar!’ is to suggest that all men are animals …] – M

73. [… Chelsea fans applauded Le Saux off the pitch but the cheers turned to boos as he *stormed off*. …] – M: 2.1, “Storm as angry departure”

74. [… But that was a very precious jewel!’ *she stormed* …] – M: 2.1, “Storm as angry departure”

75. [… Trans-Atlantic, which has experienced *a stormy relationship* with the Sun board, would demand a fancy price …] – M

76. [… two combustible personalities whose *stormy meetings* (or shouting matches) …] – M

77. [… As an indirect result of this association's *stormy history* …] – M

78. [… The Berg, with all its elusive nuances and its *stormy outbursts* (in the orchestra as well as in the solo part) …] – M

79. [… A muffled silence reigned, only broken at times by the *shrieks of the storm* …] – M

80. [… *A dreadful storm comes on*, the ship is like to break. But now when the boatswain calls all hands to lighten her …] – L

81. [… *A storm between* the uncle and nephew was the consequence …] – M

82. [… From thence it is the *storm of God's quick wrath* is first descried …] – M

83. [… They stood still while the *storm beat down*, and the fearful work of destruction went on …] – L

84. [… Like the oak, bent under the pressure of *a fierce storm*, he comes up erect too soon …] – S

85. [… but whose courage does not go to rest so early, who go to sleep only when *the storm sleeps* or the sinews of their iron steed are frozen …] – M

86. [… the body may get loose from the ship by reason of a *violent storm* …] – L

87. [… I said this to myself, resolutely, by way of answer to the *intimidating storm*. Mrs. Jones was a widow, and poor …] – M: 2.1, “Storm as rage doing on the body.”

Cold (24) – Section 2.4

1. [… But even the Randolph, which caters for the top end of the market, has felt the chill *wind of economic depression* …] – M

2. [… *chill wind of economic depression* …] – M

3. [… the *chill wind of competition* …] – M

4. [… Now something more than a quelling look appeared on Lord Woodleigh's fine-bred features. *Cold anger* …] – M

5. [… But then he turned towards the stairs and his *face went grim and* cold …] – M

6. [… a mixture of soft words and *cold* fingers …] – L

7. [… This place isn't beautiful, it's miserable - *bloody* cold, bloody …] – L

8. [… I felt a *cold thrill* in my bones when I realized the implications of the word ‘hunters’ …] – M

9. [… The martyrdom of his father in 205 left him with a *cold* antipathy …] – M

10. [… Why did he want people to *cast a* cold *eye* on him? …] – M

11. [… An enigmatic amalgam of *cold ruthlessness* and surprising kindness and sensitivity …] – M: 2.4, “Cold as harsh moral character”

12. [… I love her but I take an intense, *cold* interest in noting the signs …] – M

13. [… The gentle old men who took up the presidency of Lebanon had about them a streak of *cold savagery* …] – M

14. [… I fancied I could hear the *cold* laughter of market traders …] – M

15. [… roll in the swells for days, with the moisture beading the shrouds and the air *as cold as charity* …] – S

16. [… Both Price Waterhouse and now Touche Ross have dallied with the Deloitte domestic partnership and been given the *cold shoulder* …] – F

17. [… the poor swollen hands of the cold woman were already *cramping with the cold* …] – L

18. [… This prodigal use of cold water … was his inflexible habit, saving him from the colds …] – L

19. [… Her husband is a bit of *a cold fish* …] – S

20. [… officer of extreme gallantry, with the *qualities of* coolness and high powers of leadership …] – M: 2.4, “Cool as emotional self-control”

21. [… Patel showed *mature* coolness as he slipped the ball beneath the prostrate keeper …] – M: 2.4, “Cool as emotional self-control”

22. [… *a chill of the morning* …] – L

23. [… for the first time Vivial felt an unlasy *chill of fear* …] – M

24. [… *a chill of a time…* …] – M

Ice (27) – Section 2.5

1. [… I haven’t signed on the dotted line yet, but *it`s on ice* …] – M

2. [… Of that *icy* coldness she was very aware, but not as relief, rather as pain, rather as shock …] – M: 2.4, “Cold as somatic shock and death”

3. [… a *coldness* that was not ice- cream and not winter, not part of summer`s heat went through Tom …] – L

4. [… Let us blow smoke at each other, you and I smoke gets in your eyes, your green eyes, my *icy love* …] – M

5. [… Partly a question of its size, of the intractability of the glass, of its *icy self-containment* …] – M

6. [… It was winter, and something of its *icy strains* entered the young boy's soul, never to be forgotten …] – M

7. [… The sky was clear and glittering with *icy stars* …] – M

8. [… *an icy* reception awaited the Soviet Union touring side at Aspatria last night, but they did their reputation no harm by providing a stern test …] – M

9. [… Merely the removal of about £100,000 from the League annually in TV fees and sponsorship can cause an *icy blast* to the Fourth Division's infirm …] – M

10. [… The *thoughts dropped small and icy,* into the very centre of him, paralysing all his senses …] – M: 2.5, “Icy thoughts as figurative shock”

11. [… For a second the *icy eyes* were distant, remembering something pleasurable …] – M: 2.5, “Ice-cold eyes repressed emotion”

12. [… Hall's producer Maria Kell Brown, his director Sandy Fullerton, his company's vice-president, Cheryl Bonacci, and his *icy publicist,* Dana Friendman …] – M

13. [… *icy power* of a Nordic goddess as Club Adonis …] – M: 2.5, “The majestic power of icy authority”

14. [… She accepted the kiss with *icy disdain,* and his misery was complete …] – M: 2.5, “Rejection in action – cold contempt”

15. [… It is my attitude to women, or my conduct with them, which provides the rumours, the poison, the imprisonment in an *icy room* …] – M

16. [… a disastrous retreat in the *icy wastes* of the Russian winter could only be staved off with difficulty and at high human cost …] – L

17. [… Even in the *ice of the mystery* …] – M

18. [… *This cut no ice* with the doctor …] – M

19. [… That gloom and doom *cut no ice with* Conservative voters …] – M

20. [… discoveries about genetics *cut no ice with* human evolution, because human things …] – M: 2.5, “Ice as communicative impenetrability”

21. [… to extend onto the thin *ice of speculation and comparison* with other animals, But all this cuts little ice with someone who's …] – M: 2.5, “Ice as communicative impenetrability”

22. [… Will nothing ‘*melt the ice’* – the cosmic ice of marriage? …] – M

23. [… ‘The *ice wants to eat us* – men, dogs, sledges, everything …] – M

24. [… The sound turned my *blood to ice* …] – M: 2.5, “Blood to ice as somatic fear”

25. [… Terms like ‘I'm fine’ and ‘there's no need to worry’ *don't cut much* ice after *two months away* …] – M

26. [… Patrick Barclay on the British manager *putting the nice on ice* in the hotbed of Spanish football …] – M

27. [… And to think that once she had accused him of having *a shard of ice in his heart the ice in her body* seemed to affect her, for it came out as a croak, saying: ‘Da …] – M

Frost (6) – Section 2.4

1. [… There is little great poetry that has not come from the *frost* of sorrow …] – M: 2.4, “Frost as creative paradox”

2. [… *Frost* bites …] – R

3. [… There was a light *frost* of anger in Jackson's tone …] – M

4. [… Pacific of clear-skied summer of the *lung-stinging frost* of winter were all the same… …] – L

5. [… *frost of one`s treatment* …] – M

6. [… *The entertainment was a frost…* …] – M

Thunder and lightning (19) – Section 2.3

1. [… As I started my walk, *a storm broke and lightning lit* the sky …] – L

2. [… "*what in thunder do you mean* by that? Don't you know you might have killed that chap?" "What him say?" said Queequeg, as he mildly turned to me …] – F

3. [… *Man the capstan! Blood and thunder! - jump!* - was the next command, and the crew sprang …] – F

4. [… roared Radney, pretending not to have heard the sailors' talk.' *Thunder away at it*!' …] – M: 2.3, “Thunder as authoritative voice”

5. [… *By thunder*, men, we must do something or go for it …] – F

6. [… *Thunder splits* the ships, But he only smacks his lips, A tastin' of …] – L

7. [… *Go to thunder*, gal! What do you take a feller for? …] – F

8. [… conclusive on paper, it becomes altogether unintelligible, and even absurd, *amid the thunder of the abyss*. You have had a good look at the whirl now …] – M

9. [… Tom was silent. "Speak!" *thundered* Legree, striking him furiously. Do you know anything? …] – M: 2.3, “Thunder as authoritative voice”

10. [… Now, while all these ideas were passing through *me like lightning*, this harpooneer never noticed me at all …] – S

11. [… *Lash of lightning itself* …] – M

12. [… *The memory of lightning* flaring between the cracks in the boards …] – L

13. [… *As quick as lightning*, Toby climbed up and pulled Oliver after him …] – S

14. [… Suddenly a huge *fork of lightning* hit the tree …] – L

15. [… I remembered how the *lightning had destroyed* the tree …] – L

16. [… A strong wind was now blowing and there was a loud *crack of thunder* …] – L

17. [… The first distant *crash of thunder shook* the air …] – L

18. [… I was never afraid of Flint in his life and, *by thunder*, I'll face him dead! …] – F

19. [… There was a wild storm, and with it came the most *frightening thunder and lightning* that I have ever seen in my life …] – L

Hail (16) – Section 2.2

1. [… Carried him on his back through a *hail of bullets*. Was your hubby a military man at all? …] – M

2. [… *Hail of gunfire*, screech of tires…], …] – M

3. [… *Hail of gunfire*, freeze-frame and roll the credits …] – M

4. [… I cringe in the *hail of unsupported assumptions* being flung at me. Snap judgment about " Peoria "? …] – M: 2.2, “Hail as verbal attack”

5. [… predominantly non-Jewish population were run out in a *hail of gunfire* and explosions …] – M

6. [… Before I am cut down in a *hail of poison arrows*, the point is that there is always two ways of assessing …] – M

7. [… The two teenage girls in Birmingham were cut down by a *hail of fire* from automatic weapons not adapted air-pistols …] – M

8. [… make a last attempt at something of a discussion as opposed to shouting above your *hail of insults* to be heard …] – M

9. [… A week later, after a *hail of criticism* from assorted women's groups …] – M

10. [… When he said this, *a hail of profane words and images* fell in his brain …] – M

11. [… And now the winged spaceplane, too, is under constant fire, dodging *a hail of political*, technical and budgetary bullets on its way to orbit. …] – M

12. [… he left in a *hail of negative press stories* about his temperament, his character, his business practices …] – M

13. [… Then there was the American ninja pounded silly with a *hail of fists and elbows*, a twenty-second beating good for thirty-four stitches to the face …] – M

14. [… There is no doubt that The Beast Forever will reveal itself *as a hailstorm of fire*. It will blaze through Oz until it has obliterated that which fell …] – M

15. [… The Chicago rapper and Def Jam signee found himself *in a hailstorm of criticism* when video of him punching and kicking a woman later identified as Tiairah …] – M

16. [… It's unleashed a *hailstorm of psychic energy*. Psychic memories. Connecting me directly to my father.…] – M

Other (9)

1. [… This is work which requires an *emotional* coldness …] – M

2. [… Since the arrival of the letter *a* coldnesshad grown inside her, and a pain in her throat that wasn't really a pain but a hard, tight ball of anger …] – M

3. [… Coldness settled in her stomach, hearing Miss Jarman bark out …] – M: 2.4, “Cold as somatic shock and death”

4. [… He clutched at the hand in panic, and felt *the* coldness *of death* …] – M: 2.4, “Cold as somatic shock and death”

5. [… The images were more vivid tonight, perhaps because of thecoldness which had developed between him and Celia …] – M

6. [… Everyone in the office noticed the new, impeccably *polite* coldness between Miranda and Adam …] – M

7. [… Their *coldness* accentuated the tenderness and sympathy of the servants …] – M

8. [… *thestorm booming* without in solemn swells …] – L

9. [… I only saw him for a moment, but my *blood seemed to freeze* …] – M

Appendix D

NCKL/ACKL corpus sentences containing meteorological lexicon

The group headings indicate the section of Chapter 3 in which the examples of each meteonym are analysed. The status of every example is marked: M – metaphorical use (for examples quoted in the chapters, the section and sphere are given); L – literal use; S – simile; Mt – metonymy; H – homonymy; F – fossilized idiom or formula; T – terminological or colour-coded nomination; R – reverse transfer; B – insufficient corpus attestation. Only the examples marked M are counted in Table 5. Of the 297 examples, 132 are metaphorical (M), 89 literal (L), 55 similes (S), 11 terminological or colour-coded nominations (T), 5 homonymous (H), 2 metonymic (Mt), 2 fossilized idioms (F) and 1 case of insufficient corpus attestation (B).

Жел (Wind) (144) – Section 3.1

1. [… басқа жүйріктердің ерен бітімі мен *жел тұяқты желісі* …] – M
2. [… қайыңның *басын жел алса,* Балапаным суға кетер деп …] – L
3. [… баяу соққан *самал желге сыбдыр* қағып тұр …] – L
4. [… Бастары көгеріп, бүрленіп қалған қалың қараған *жел лебімен* сыбдыр-сыбдыр қағып теңселіп, ырғалып қояды …] – L
5. [… *Ақылды жел де ұшырмас,* ұры да ұрламас …] – M
6. [… *Аузы желдей есу*, ауыз жиғызбау, көкезулену, мұрнынан сөйлеу, тілін безеу …] – S
7. [… Қазіргі қазақ тілінде бөрі сөзінің метафоралы мағыналары мына тұрақты тіркестерде байқалады: бөрі құрсақтанды ас орнына *жел жұтты* …] – L
8. [… Түйені *жел шайқаса,* ешкіні аспаннан көр/көктен ізде …] – M
9. [… біреуге олар түйені *жел тербеткендей* сезілсе …] – S
10. [… Үлгілері төмендегідей: Сұрай арнау: *Желі толған* сар түйе, Ағажан кімге тапсырдың? …] – H
11. [… екеуміз бір-біріміздің *бетімізге жел болып тиген* емеспіз …] – M
12. [… *Үйіріп соққан жел* өңменіңнен *итеріп құлата* жаздайды …] – L
13. [… Таң ата оянсам, көп жылағаннан екенін немесе *терезеден жел тигенін* білмеймін …] – L
14. [… *Жел өкпелеу* кейбір бозбалалар сиырларды да сырнайлатып қарсы алар еді …] – M
15. [… *Жел жетпейтін құландар*, деп, оларды қазақ поэзиясының ең ірі өкілдері ретінде таниды …] – M
16. [… Тойға келген *таң желі сыбырласып* деген сияқты өлең жолдарында күн …] – M
17. [… Ол арманы *еркін жел,* мөлдір ауа, жылы шуақ, алыс қыр …] – M
18. [… Ешкімді жатсынып, жатырқамай, кісі баласының *бетіне жел боп тимей* …] – M

19. [… Жаурап тұр ғой әнеки құба талың *жел ұшырған* жазықсыз жапырақты …] – L

20. […Жапырақтың жанарын моншақтатып, *Асау жел* азынатып бара жатыр…] – M

21. [… Қуат кеміп, қажыған соң *жүйрік жел*, Өксіп өксіп жылағандай болады …] – S

22. [… *Жел гуілі* тұтқынның үнілеген күңіренісі мен күрсінісіне ұласады …] – M

23. [… *Жел мен тұтқын* сырласуы табиғат лирикасына алтын діңгек бола алған …] – M

24. [… Мазасы жоқ *жел ерке*, Оянып тым ерте Жорғалай басып кетеді …] – M

25. [… Кете бардым азыната *жарып жел*, Көз алдымда бұлдырайды сары бел, Жаны қалмай қолын созып тұс-тұстан …] – L

26. [… *жел шайқаған*, күндізгі аңызақ …] – L

27. [… *жел жұлмалаған, азынаған жел* …] – M: 3.1, “The wind as a wild predatory animal”

28. [… кейде *жел жұлқынып* …] – M

29. [… *заман – соққан жел* …] – B

30. [… *жел жеп қойған* қылилау оң жақ көзі …] – M: 3.1, “The wind as harmful physical touch”

31. [… денеңді *жел аймаласын* …] – M: 3.1, “The wind as gentle caress”

32. [… *ұры жел* көзге ілінбей зыр жүгіріп …] – M: 3.1, “The wind as a living and feeling agent”

33. [… *долы жел* шығып …] – M

34. [… *жел ұстаған* белі қиқаң …] – M: 3.1, “The wind as harmful physical touch”

35. [… *аузының желі бар* …] – M

36. [… түндегі *айқай жел басылса* да …] – M: 3.1, “The wind as a living and feeling agent”

37. [… бірақ гуілдей соққан *кәрлі жел* ұйқы бермеді …] – M

38. [… *қатты жел жыртып* …] – L

39. [… күн үйдіріп, *жел сүйіп* …] – M: 3.1, “The wind as gentle caress”

40. [… Бетбақтың бет қаратпайтын *ызғарлы желі* желіккен жастық шаққа сексеуілдің …] – M

41. [… *Жел соқпаса* шөптің басы қимылдамайды …] – M

42. [… Өмірі *жел боп көрмеген* жарымды жағынан …] – M

43. [… *құтырған желмен* жарысып олар да …] – M

44. [… компрессор арқылы *жел айдап* …] – L

45. [… Ажар жеңешем *бетіме жел боп жоқ* …] – M

46. [… *Құдды желмен* соғысқандай күйде болдық …] – S

47. [… деген *желдей есіп* желпінген жалғыз сөйлем …] – S

48. [… қарсы соққан *өкпек желден өтініп* келеді …] – L

49. [… өзінің түп-тамырына *жел тигізбейді* …] – M

50. [… *Желмен желпініп* .....] – L

51. [… Қамшы батса қазандай *қарны да жел* қуықтай желпілдейді екен …] – S

52. [… Басындағы бар ақылы тар бөксесіне түсіп кеткен *жел қуық* …] – M

53. [… Терезеден оқыс, ұйытқан соққан *қоңыр жел* ортадағы столдың үстінде тұрған гүлдерді шайқай …] – T

54. [… Ашық терезенің пердесін серпіп жіберіп қанатын қаққан *самал жел* маңдай шашының …] – M

55. [… Бірақ сұлу біткенді ежелден емін-еркін сүйіп ескен *ерке жел* ақша бетті өзі ғана сүйгісі келгендей …] – M

56. [… *желдей есетін арқасы* бар …] – S

57. [… Анда-санда *жел қағып жалғыз ішегін ызыңдатқаны* болмаса …] – L

58. [… кейде *жел ғана ыңыранып* ызылдайды …] – M

59. [… Ыққан жылқы *желге қарсы* жүрмейді …] – M

60. [… денесіне *желден басқаны* тигізгісі келмейтін жаны таза қыз екен…] – M: 3.1, “The wind as a touch of taint”

61. [… Хабарды кеш естіп, кейіндеп келгендердің жетпей айтқан *жел сөзі* …] – M

62. [… Өңкей *жел буаздар* …] – M

63. [… Бурахандай жерлесім болса менің де *жел жағымнан жан жүрмес* еді…] – M

64. [Оның бәрі *желге кеткелі* тұр …] – M

65. [… Екілене соққан *желдің ызыңы* арасынан …] – L

66. [… түшкіріп, сәл ғана *жел тисе*, ауырып қалатын нәзік, әлжуаз жан еді десем …] – Mt

67. [… кәдімгідей *ызғарлы жел* қойны-қонышын тіміскілеп, қалған-ұтқан жылуды жалап-жұқтап қойды …] – M

68. [… *Сұғанақ желден* денесітүршікті әлдебір күш еріксіз ішке тартты , жылыға сүйреді …] – M

69. [… кек теректің ұшар басы *жел тұрғандай* арлы-берлі шайқала бастаған еді …] – S

70. [… Әлгі сәтте Алатау жақтан бұлқына соққан *жел көкпен таласқан* көк басын көк құрақтай шайқады …] – M

71. [… Үмбетбай бастығының сырына әбден қанықпын дей алмайтын, да бұл жолы қалайша *жел жағынан* шығып қалғанын аңғармады …] – M

72. [… Екі жыл жер тепкілегенің әпсәтте естен шығып, екі *бүйіріңнен жел есіп* …] – M

73. [… тұлабойын тосын *жел кеулеп* бір жеңілдік пайда болғандай …] – M

74. [… Ешкім жоқта *жел қақсын* деп бүктеуін жазып ұстап отырады …] – L

75. [… Орысша айтсақ: сені қандай *жел айдап келді* , кәне , әуелі соны сөйле …] – M

76. [… Құрышпай *сөз желісін* өз мақсатына бұра сөйледі …] – H

77. [… Арқаның *самал желі жібек шәлідей* машина доңғалағына оралып дыр-дыр етіп жыртылып жатты …] – S

78. [… Айша сөзінің ар жағын *жел қақты*, естілмеді, сыбырға көшкендей …] – L

79. [… *жел желпіп* әкеткендей қайта тынысталады …] – S

80. [… Арқаның дөңесінде қақбақ қуып, асыр салған *қызыл жел*, саябыр тапқандай. [Күлкі басылды. *Жел де тынды* …] – T

81. [… көсіліп келіп жүргенінде қарсы алдынан аңқи есетін *самал желдің иісіндей мұрнын қытықтайды* …] – S

82. [… Омырауын *жел қауып,* көсіле шабудың не екенін де ұмытты …] – M

83. [… Алдынан соққан *өткір жел* тұяқ ұшырған шаң мен топырақты, кейде түйдек-түйдек саздарды айдап әкеп бетіне ұрады …] – L

84. [… Қасарыса *итерген жел бұрынғыдан да күшейе түсті* …] – M

85. [… Кеудеден итерген *жел де бәсеңдепті* …] – L

86. [… Енді тұяқтарын *жел кеуледі* …] – M

87. [… Бұда барын салды Қапталынан қасарыса итерген *қайсар желден* құтылды …] – M

88. [… Дастарқан жайылған соң жаңағы *жел буаз әңгіме* де басылыпты …] – M

89. [… күйкі *көңіліне жел бітіп*, желпініп, жер-көкке сыймайды …] – M

90. [… Оттай ыстық жүйрік аттың жалын құшып, кері ыршыған жалбыр *жел жалап* қалады …] – M

91. [… жалаңаш сауырларын *жел қытықтап,* шапқан сайын рақатқа батып, үдей түсті …] – M

92. [… Бағана Қыземшек төбеден аттанғанда бетеге түбінде *бұғып жатқан жел* бұлар шапқанда өре тұрып қарсы шауып …] – M

93. [… Сырттағы *баяу жел* басылған …] – L

94. [… Күн жеп, *жел қаққан* жиде жапырақтарынан көкірегіңді ашатын етене таныс кермек иіс аңқып қоя берді …] – L

95. [… *Ұшарын жел*, қонарын сай білетін көшпелі елдің перзенті қай қара қазанда да өз сыбағам бар деп ойлайды …] – M

96. [… Шөп басын дірдектетіп *ызғырық жел* …] – L

97. [… кеудеден итермелеген *өкпек желден* діңкелері құрып, қара тепсеңде қараусыз қалған құрым үйге сүре жығылды …] – L

98. [… Қабырдың үстінде *жел мүжіп,* күн жеп, әбден шөгіп …] – M

99. [… Ал Дәулет, *жын иектеген жел көкірек,* талай рет намысыңды …] – M

100. [… Күйші, өлеңші дегендерің де күлімсіреген еркекке емешегі құрып, есі кетіп қалатын *жел қуық* ұрғашы сияқты ғой …] – M

101. [… Қу бастың астындағы ашылып қалған тесікке *жел кіріп*, әлдеқандай ызың шығады …] – L

102. [… Әлдеқайдан *жел айдап* әкеп қосса да …] – M

103. [… Даланы билеп алған жалғыз үн күн сайын қатая түскен күзгі *желдің уілі* ғана …] – L

104. [… Кейде қарқылдай күліп, аяусыз мысқылдап, намысқа тиіп алға сүйрейді, кейде ақжарқын, *желдей есіп*, жігеріңе қанат беріп жібереді …] – S

105. [… Жайқалып келіп жағаға тірелген көк майсаны *майда жел ғана тербетіп*, теңселтіп қояды …] – L

106. [… Кеменің алдыңғы тұмсығында маңдайымды *ескек желге* тосып, мен тұрмын …] – L

107. [… Мүгедектердің қасынан *желдей есіп өтіп,* тоқтаусыз зарлап …] – S

108. [… Мен оларға осы сөздің өзін де айғайлап қалар ем, *жел аударып босқа* кете ме деп, оны да істемеймін …] – L

109. [… Таңертеңгі *жаяу жел* әдеттегідей таза емес, өрт исін ала келіпті …] – L

110. [… Түнде жүзген қайықшының отындай әлсіз жылтылдап, ұшып кеткісі келгендей зәресіз қыпылдап, айнала жұлқынып білте шам тұр; *болмашы* желден бұға шалқып …] – L

111. [… Ардақты қолбасым, Ростов қаласына қайта оралғанда тағы да, қанатыңнан *жеңіс желі есіп*, қырандай шүйілуіңді тілеймін …] – M

112. [… Қатты *жел айғайды* ұйпалақтай қуып, ұйтқытып айдап, жоғары әкетіп бара жатқанын көзіңмен көріп тұрғандай боласың …] – L

113. [… *Жел қатайып* кетті …] – L

114. [… Жырым-жырым болған туымызды алып Самед бекініске келді: Сабағын оқ қырқып, *жел сындырып* түсірді …] – L

115. [… Бәрібір *жел сол жақтан* …] – M

116. [… Жаздыгүні ауылдың шетінде, қыстыгүні *желдің өтінде жұрдай* болдық та қалдық …] – L

117. [… Ол *жел лебімен* теңселе ырғалып тұрғандай көрінеді …] – L

118. [… Жауын үстінен *жел өңменімнен* өтіп, түн ұйқысын қырық бөле қалғыған қажыған азаматтар тобына лайды сыпылдата басып келемін …] – L

119. [… Оның: Үшінші, деген жауабы ұйтқыған *жел жұлып* үзіп ала жөнелгендей естілді …] – S

120. [… Киіммен бірте солтүстіктің *жел маясы* …] – M

121. [… Есіктен соққан *жел аңырап* төрді қаптайды …] – M

122. [… Сөйтіп жандай жақсы көретін достымның өмірінде білдірген жалғыз сабағатын *желге ұшырдым* …] – M

123. [… Аттың шабысымен *кеулеген жел* омырауын екі жаққа әкетіп …] – L

124. [… Жапырағы әлі түсе қоймаған теректің бостаны сыбдырлап, *түнгі желмен тербеліп* тұр …] – L

125. [… Егер байсасы тікірейіп, *айдарынан желі есіп* тұрған болса бұл маған жалынан ұстатар ма еді …] – M

126. [… Кейде ол шоқ егер *жел тигендей* болса түнімен қоздап, ішінен ақ шоқтанып жанып бітіп қалады …] – S

127. [… Ол кезде оған *жел аяқ* деген қосалқы атты және тақты …] – M

128. [… *Самал жел* жапырақтарын сыбдырлатады, әлдеқайдан алыстан бақ ішінен өзіне шақырған қыз әні естіледі …] – L

129. [… Құла дүз соғатын сәске түстегі Құла дүз *өкпек жел* бауырлай қанатымен егіндіктің …] – M

130. [… Бірінде үн Ауық-ауық *соққан сотқар жел* жыландай айналып …] – S

131. [… Мынау, жалаңаш *тас тауды жел* қырнап …] – L

132. [… *ескен жел сүргілеп жона* берген …] – M

133. [… оған қосылған есер *жел ысқырып,* жол кеседі …] – M

134. [… Нұрлан *желдің* қай жақтан соққанын енді түсінді: Нұрқат бөлесі екен ғой , әкесіне салмақ сап жүрген …] – M

135. [… *Жел басылып,* жан-жануар айғай-шуын, жәндік сыбдырын азайтып, дала тыныстаған мезгілді …] – L

136. [… Мүмкін, әлде естімей отырған болар *жел қағып* …] – L

137. [… *Жел қаққан* қошқар тұмсығы бұрыннан бетер делдиіп танауы дір-дір етеді . …] – L

138. [… *Желке жақтағы* таудан соққан қызыл жел құлақ түбінен ызыңдап ма заны алады …] – T

139. [… Жоқ! деп басын көтеріп алғанда арқырай соққан *жел* бас киімін *алып ұшып* …] – L

140. [… Іші пысып, ары-бері теңселіп жүрген бұжыр бет қиялын *жел аударған қайықтай* бұзып жіберді …] – S

141. [… Оларға сенбеңіз. Олардың бақайынан насоспен *жел үреді* де тігіп тастайды? …] – L

142. [… Қой фермалар бұзылып *жел көтерді* баспанасы бой көтерді? …] – L

143. [… ықтырмасынан *жел ызғып, зықын кетіріп біткесін* …] – L

144. [… Қырдан соққан *қатқыл желден* қыс ызғары сезіле ақ бастағасын …] – L

Жаңбыр (Rain) (37) – Section 3.2

1. [… кейде жаңбырдың *жел ұйтқыған* кездегі …] – L

2. [… *Күн сүйіп, жел өбіп, жаңбыр мүжіген* қам кірпіштердің әрқайсысы сырын ішіне бүккен көненің көзіндей көк күмбезді қиналмай, ауырсынбай көтеріп тұр …] – M

3. [… *Жаңбыр шелектеп құя* бастады… …] – L

4. [… Кеше осы жолмен қалың кірешілер еткен еді, таңертеңгі өткінші *жаңбыр ізін шайып кетіпті*… …] – M

5. [… осылай іштей қинап өзіне *қазір жаңбырдай жауатынсұрауларды*ң жауабын ойлап …] – S

6. [… Ол жақындаған сайын *жаңбырдың үні өшіп* барады… …] – L

7. [… Зордан өйте алмады, жұрттың ырқына көніп ыржалақтап күле беріпті, *жаңбырдай құйылған құттықтаудың* астында мәз-мейрам болып… …] – S

8. [… *Жаңбыр үдей бастады*… …] – L

9. [… Дабыл ұрғандай, *жаңбыр шатырды төпелей* ұрып тұр… …] – M

10. [… Бүгін де сырттағы сытыр *жаңбыр үніне* құлағын тосып жатты да қойды… …] – L

11. [… Астың мұз, үстіңнен ақ *жаңбыр арылмайды* деп жазады… …] – T

12. [… Қой кетті. *Жалаң қабат жаңбыр өтті,* жаурадым, Қалқажан… …] – L

13. [… *Жаңбыр үдей түсіп,* бетке бүркіп-бүркіп жібереді… …] – L

14. [… *Жаңбыр себелеп жауып* тұр… …] – L

15. [… Арада бір ай өтті. Күздің *сылбыр жаңбыры*… …] – L

16. [… Рахман нұр *алтын жаңбыр* құйылды, қаны, жаны, тәні, миы жуылды… …] – M: 3.2, “Abundance and divine blessing”

17. [… Төс қағысып батырлар табысыпты тағдырлар, қара орманның тілегі төгіп *алтын жаңбырлар*… …] – M

18. [… Жаратылысты жаңартар Алланың *алтын жаңбыры*… …] – M

19. [… *Сүмбіле жаңбыры* жүріп өткен жердің кәдесінің түбі көк, малға от болады деп, жылқыны қыста сол жерге тебіндеткен… …] – Mt

20. [… Қатардағы өлеңде: Тақыр жерге *соқыр жаңбыр* жауады… …] – M

21. [… *Нөсер жаңбыр* құйылғандай шүмекпен, Осы маңды өршелене үдеткен… …] – S

22. [… Ол күзді күнгі *жаңбырдай жібіскілеп тұрып* алмай сергек тамады… …] – S

23. [… Тап осы араға аспаннан әлдебір *тас жаңбыр* жауғандай шашырай қағылған қада тас… …] – S

24. [… Тек қара ленталарға алтын әріппен жазылған сөздер ғана *жаңбыр шайып өше* бастапты… …] – L

25. [… кезек шайқап, шыңыраудың айналасына *қара жаңбыр* бүркіп тұр… …] – T

26. [… Бір өкініш сыздатып жан жүректі, Ыстық бір сезімімді *жаңбыр етті*…] – M

27. […*Дауысын тыңдап жаңбырдың*, Қалғушы ем қамсыз көз іліп, Әуірі сынды тандырдың ЫІп ыссы демді сезініп… …] – M

28. […Бұла түн қайда? Аспанды бұлттар қаптап ап жалбыр, Тұратын майда сіркіреп *ақтамақ жаңбыр*?… …] – M

29. […Арудай болар ақ қайың *ақ жаңбыр* душтың астында… …] – T

30. […*Шапағатпен жауады жылы жаңбыр*… …] – M: 3.2, “Abundance and divine blessing”

31. […Жарық түнде жауа берсін Ақ қағазға *алтын жаңбыр*… …] – M

32. […Сан ұмтылдым, таппадым, *ұрды жаңбыр* әйнекті; Жүрек тулап, ақты ағын… …] – M

33. […Онда жоқ мынау жасыл бақ, Ол жақтың бағы тым басқа, Аспаны күнде жасындап, *жаңбыры жауар тынбастан*… …] – L

34. […Жау, *жаңбырым*, нөсерлет… …] – M

35. […*Маңдайдан жаңбыр өткенде*, Таңдайдан тағдыр өпкенде… …] – M

36. […Өлтіріп ап, ұялмастан *Жас төгеміз жаңбырдай*… …] – S

37. […*Қара жаңбыр* әлі де құйып ау тұр, Аттай алмай отырған сиқы мынау…] – T

Қар (Snow) (23) – Section 3.2

1. […Жаңағы сұңқардың қаза болған қайғылы хабарын *мұңлы желден* естіпті де Бұлар, әсіресе Медеу *жел көңілденіп* алыпты …] – M

2. […Шолақ киімдері жоғары сырылып кетіпті де, ашылып қалған жалаңаш арқасына *айдама жел* түйір қиыршық қарды тығындап жатыр …] – L

3. […Оған ерегіскендей *жел булыға үдей соғып, қар суырып, бұрқырай жөнелді* …] – L

4. […Күрекпен қарды көтере бергенде *жел суырып* ала жөнеледі …] – L

5. […*Жаздай қар қатқан қабағына* тұңғыш рет жылу орнап, қайдан тапқанын қайдам, сол күні қазанда ет қайнап, дастархан жайнап… …] – M

6. […Дала жап-жарық, *аппақ қар*, бұл да қыстың күні еді… …] – L

7. […Ақ қарға түскен көмір еттер бажылдай *қар астына сүңгіп* жатыр… …] – L

8. […Жасымыз біразға келгенімен, “қалауын тапса *қар жандыратын*” әйел емеспіз бе?… …] – M

9. […*Басыңды қар басып қалар*, құлақшыныңды ала көрме… …] – L

10. […Өлікті қарға көмгеннен пайда жоқ мына құзғындар *қардан ақ* қазір аршып алады, жерге кемуге шама жоқ, енді не істеу керек ?… …] – L

11. […Менің *қабағымнан қар жауса*… …] – M

12. […Әлгінде ғана қиыршық *қар қиыршық қар* емес екен, мыңдаған үшкір ине екен!… …] – M

13. […Ақ қар тон сары самырсын орманнан да өтіпті… …] – M

14. […Еңкейе, шалқая белі жазылыпты, денесі бусаныпты, әлгінде *қар үстіне* тастай салған тұлыбын қайта көтеріп… …] – L

15. [… *Аппақ қар* аппақ дүниеде қалт еткен қыбыр білінер емес, дың еткен дыбыс білінер емес… …] – L

16. [… Ауыл шетіндегі Қыпшақ бейітте Ұлтарақтың кіндігінен жаралған үш ұл, екі қыздың шошайған моласы қыста *ақ қар* жазда шалғын басып қатар жатыр…] – L

17. [… Еркек асықпай шығармын деп, мың қой айдаған көңілмен *ақ қар* далаға терезеден тамсана қарап тұр… …] – L

18. [… Жапалақтап жауған *қар* да көңіл шіркінге *демеу… …*] – M

19. [… Самолет іші де ағарып, күнге шағылысқан *ақ қардай көз қариды… …*] – S

20. [… Өй, шірік қар! Мына қалпыңмен инженер қыз түгіл, кез келген қыз тартып әкетеді… …] – M

21. [… Майданның шекарасына жақындап келеміз, жер де, аспан да көкпеңбек *көк түтін қардай жауғаноқ… …*] – S

22. [… Ақмарал одырая қарап: *Өй жасық қар*, көзіңе ақ түссін …] – M

23. [… ақ екі бөлме, қонақ келсе ас үйде жатамыз, деп келіннің *қабағынан қар жауды…*] – M

Боран / дауыл (Storm) (4) – Section 3.1

1. [… Аяғынан жараланған жауынгер Гришин қазақ даласын үздіксіз соғып тұратын *борандай жел сөйлейді* …] – S

2. [… Теңіз жағасының *ескек желі* төбенің үстіндегі қара боранды етегімен желпіп, ысырып әкетіп барады …] – T

3. [… *Жел* үлпек қарды көтеріп *қуалай, борандата бастады* …] – L

4. [… Найзатас ғасырлар бойы *қар жаңбыр, дауыл жел* ысқылап, егелеп …] – M

Суық (Cold) (18) – Section 3.4

1. [… суық *жел* жұқа киімнің *ішіне кіріп* …] – M: 3.1, “The wind as harmful physical touch”

2. [… суық *жел кеулеп* …] – L

3. [… айдап әкеткісі келгендей екілене соққан *желдің суық сүреңі адам* үнін жөнді естіртер емес …] – L

4. [… Жап-жаңа ғана салқын су ұрттағандай саябыр тартып, сабыр таба қалған көңілдерге тағы да *жел бітті* …] – S

5. [… *Азынаған суық желдер* ауылда қасқырды еске салушы еді, балалар үйінде ашық-тесікті тез қымтап, пешке жағатын отынды ойла деп тұрғандай …] – M

6. [… Солтүстіктен соққан суық *қара жел* қаратар емес …] – T

7. [… Қақ маңдайдан қасарыса соққан *суық жел* ақын Сараның арқасында он метр мата тыққан айттырған күйеуіндей боп жатқан жігіттің қоржынын желп-желп қозғап …] – L

8. [… түнгі суық жел беттен ұрып Құлағында шараналардың *іңгәсі жел боп ұйтқып* тұрған шығар …] – L

9. [… Қияқ шабарман *суық хабар* әкелген …] – M

10. [… сұлу мұртты Жәнібек пен жалаңаш қанжардай *түсі суық* Керейге көз қиығын аударды …] – S

11. [… Сонан кейін *суық үрей* бойын алған жау …] – M

12. [… бір *суық сезім* жүрегіне шауып шошып қалды …] – M: 3.4, “Cold as fear and emotional alarm”

13. [… *Суық, ызғарлы сұлулығымен* тек ертегілерде ғана кездесетіндей …] – M: 3.4, “Cold as sublime aesthetic value”

14. [… өзге жолдастарындай *суық сынмен* қараған жоқ-ты …] – M

15. [… іргеден *суық қол* кіріп келді …] – M: 3.4, “The cold hand of the thief and the unfortunate touch”

16. [… түсі *суық дүниеге* шошына қарадың …] – M: 3.4, “Cold as character and moral evaluation”

17. [… Бұл *суық жүріс* …] – M

18. [… Әттең қазақтың салқын *көңіл суық* жігіті-ай! …] – M

Мұз (Ice) (21) – Section 3.5

1. [… Балмұздаққа айналып кеткен теңге *желге ұшқандай* “жалт” етіп жоқ болғанымен …] – L

2. [… Жалғыз ішкі жейдеммен қалғанымда *суық жел денемді мұздай қарыды* …] – S

3. [… күзді күнгі *суықжелдей* көңілі ұйтқып, денесі мұздап, тітіркенгендей болды …] – L

4. [… Сабындыкөлден соққан *суық жел* дене мұздатып …] – L

5. [… Отарбамен жарыса *уілдеген жел* жонарқасын мұздатып, қойын-қонышын түгел аралап, алпыс екі тамырын сыздатып қоя береді …] – L

6. [… *мұз бен қарға бауырымды басып* …] – M: 3.5, “Endurance, suffering and hardship”

7. [… соғысқа аттанған күннен бері *мұз боп қатқан көңілі* тұңғыш рет жібіп …] – M: 3.5, “Frozen emotion and the heart”

8. [… *Қар төсеніп, мұз жастанып дамыл алмай жүріп...]* …] – M

9. [… *мұз боп қатып жатқан жүрек* жібіді ме? …] – M

10. [… Ауыл аймақ болып аузының суы құрып тыңдап...татарларды *мұзға отырғызып кету* …. …] – F

11. [… Екеуі де *мұздай* киініпті…. …] – S

12. [… Әйтпесе , құстың қанаты талатын қиянға, *ақ қар көк мұзда* үдере көшіп неміз бар? …] – T

13. [… жұбайынан естігенде төбесінен *мұздай су құйғандай* сілейіп тұрып қалды …] – S

14. [… *ішінде бір мұз жатқанын* Мәди сезген секілді …] – M

15. [… Яковенко да бұған *мұз көзімен* тесіле қарап тұрды …] – M: 3.5, “Gaze and facial expression”

16. [… Еламан ат тұсарлығынан келетін *мұздай көкке бауырын* төсеп, көміліп жата кетті]. …] – S

17. [… Еламанның *жүрегі мұздай болды* …] – S

18. [… *Көкірегім мұздай болды* …] – S

19. [… Даладай боп ашылған ақ тамаққа қазан пышақтың *мұздай жүзі тиді* …] – S

20. [… Бұлар осы жолда қар жамылып, *мұз төсенді* …] – M

21. [… Көбіне үнсіз. *Қабағында мұз, жүзінде ызғар* …] – M

Аяз / қырау (Frost) (7) – Section 3.4

1. [… Сырттағы қырық градус аязды қаңыраған вагон іші одан бетер құтыртып тұрған, сырттағы *аяз желмен жұмсаруы* ықтимал немесе желмен қатаюы ықтимал …] – L

2. [… Шолақ тонының түймелері ағытылып кетіпті, құлақшыны артына қарай сырғыған, қара бұйра аязды ж*ел желбіретіп* түр …] – L

3. [… Қырау қатқан қарап тұрып сөйлеген Мұстафа *қар басқан* кең даланы Қырау қатқан көре алмады… …] – L

4. [… Бойын *аяз қысқандай* азырақ діріл бар…. …] – S

5. [… Ағаштар ақ тонының етегі жер сызған *аяз аталарды* еске түсіріп …] – F

6. [… сүйектен өтіп бара жатқан *үскірік аяз* жанын қоярға жер таптырмай қос жұдырықпен …] – M: 3.4, “Frost as physical force on the body”

7. [… Сол күні таңертең сақылдаған *сары аяз* еді …] – T

Найзағай (Lightning) (27) – Section 3.3

1. [… Оның мұндай кездегі соққысы *найзағайдай тиетінді* …] – S

2. [… екеуінің арқасына найзағай ойнағандай болып кетті де …] – S

3. [… *жарқылдаған найзағайға* ұқсап кетті …] – S

4. [… Міне, көрдің бе, сен жадырап едің, *аспанның найзағайлары* маған өзімнің мынау қамшымдай көріне бастады …] – S

5. [… оғын ата шатырлаған *найзағай өршелене* …] – M: 3.3, “The lightning as an animate agent”

6. [… Жоқ, бұл соқаның емес, жанағы *найзағайдың ізі*, сен бұған емес, анаған қара, ана шала жанып жатқан қасқырға қара …] – L

7. [… *Қас-қағымда найзағай* сөнді, бірақ жаңағы жалғыз қабірге жабысқан елес Сапардың көзінен өшер емес …] – L

8. [… *Найзағай оты өшісімен* басын көтеріп, қараңғыны қармап еңбектеп келе жатқанға ұқсайды …] – L

9. [… Қара түнмен қағысып *найзағай отын шашпаса*, адыра қалсын найзаң …] – M

10. [… Мәдидің осы әмірін күтіп тұрғандай *найзағай жарқ* өтіп …] – S

11. [… Оның ойынша: Мәди қиырдан қиырға құлаш ұрып жүйткитін *найзағай секілді жан екен* …] – S

12. [… Аспанның сонау заңғарынан отын шаша, оғын атқылап сатырлаған найзағай да сол ауылға төніп келеді …] – M

13. [… *Найзағай сатырлай* қалса да ол деп жалбарынады …] – L

14. [… Жаңағы бір жарқ етіп кеп *найзағай болып соққан асау сезімді* кері серпіп тастады да: Сәлеметсіздер ме? деді бас изеп …] – M

15. [… Сауыс ұмтылып барып оның қолтығынан ұстай алды: *Төбеңізге аспанныңнайзағайы түссе де* мейлі, оны жұлып тастау маған киын емес …] – M

16. [… Ашық аспан жақсы ғой, дегенмен, бұлт жөңкіп, *найзағай ойнап*, нөсер шайып еткен аспанға не жетсін …] – M

17. [… Сол ауыр *түнді найзағайдай тіліп*, әйел әні аспанға өрлеп бара жатқандай …] – S

18. [… *Жел мен жауынның* командирі *жау төбесінен найзағай* түсірем деп кетті ме екен *құйын соқтырам* деп кетті ме екен? деген ой әлі арылмай бірге келе жатыр …] – M

19. [… *Найзағай найза шаншып* …] – M

20. [… *Найзағайдан құлаған емендердің*, Өшін көрдім өртенген өлеңдердің …] – L

21. [… Сұмдық оқтың көрмейміз жолақтарын, *От боп ойнап найзағай оқ* атқанын …] – M

22. [… Қасқиып тұрған жалғызды, *Найзағай іздеп табады* …] – M

23. [… *Найзағай бір күн ұрады,* Есіңде ұста мынаны: Қасқиып тұрған жалғызға, Артады сосын кінәні …] – M

24. [… Тайбурылдың осынау шаққа дейін, *Найзағайлар ұшады табанынан* …] – M

25. [… Қара бұлт қаптаса да аспан, айды, *Түссе де найзағайдай басқа қайғы* …] – S

26. [… Жұрт мені қатал дейді *найзағайдай мінезі* шатырлаған …] – S

27. [… Сезім тұр тасығалы, Жанардағы *найзағай жарқылдарынКірпіктер жасырады* …] – M

Бұршақ (Hail) (16) – Section 3.2

1. [… ол қыздың кеудесінде үлкендігі жалғыз *түйір бұршақтай* ғана алтын түсті меңі бар... …] – H

2. [… Таңертеңгі жым-жырт алқап төбеден *тас бұршақ* жауғандай дүрсілдеп кетті... …] – S

3. [… кезде *бұршақтай жауып* кеткен көп құдалардың аяқтарына теп-тегіс жем түсе қалуы да тегіннен емес... …] – S

4. [… *Мұның мойнына бұршақ салып* тілеп алған Тілепалдысы қайда... …] – H

5. [… Төр алдында *бұршақтай терлеп* жатқан бөбекті орауымен алып, оң құлағына аузын апарды …] – S

6. [… Алтынмен араласа, іркес-тіркес біткен торы ала әкем мен шешемнің...] арғы-бергісін қазбалаған сөздерді *бұршақтай төгіп келеді* …] – S

7. [… Майданда *бұршақтай құйылып* тұрған оқты беріп жатқан Қоңырат …] – S

8. [… Оқ су *бетін бұршақтай сабалап*, шып-шып етеді... …] – S

9. [… Осы күнгі, автомат дегендер *оқты бұршақтай төгеді*...] – S

10. [… *шашылған бұршақтай*, жан-жаққа бытырай қашты, балаң жігіттер уылдап, қол шапалақтады …] – S

11. [… *Тас бұршақтай тасырлап* жатқан тастай бірдеңелердің қайда тиіп, қайда тимей жатқанын ойлауға да шамасы болған жоқ …] – S

12. [… Анау ашық айдында ірі құстар *бұршақ соғып* мертігіп жатқанда, бергі жақта - саяз , қызыл суларда солар жан сақтап, аман қалатын еді ғой …] – L

13. […Пулеметтерден, Бомбалардан Қорғасын *бұршақ жауады*…] – M

14. […мана таңертең бірде-бірі көрінбеген жау самолеті енді қара бұлттай қаптап, *бомбаны бұршақтай жаудырып жіберді*…] – S

15. […*Бұршақ салып тілеп алған құдайдан*, Есекеңнің ұлқып сүйген бір қызы …] – H

16. […Бәріне жауаптымын. Қашан менен қалғалы тағат, тыным, Пісіп тұрған егінді *бұршақ ұрса*, Айтыңдар жауапты кім?…] – L