

# **FROM SUBORDINATE CLAUSES TO DISCOURSE COHERENCE: A CRITICAL REVIEW OF RESEARCH ON CAUSE-EFFECT RELATIONS IN WORLD AND TURKIC LINGUISTICS AND ITS IMPLICATIONS FOR KARAKALPAK**

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## **Abstract:**

Research on how languages express cause and effect has changed shape several times over the past century. It began with the classification of conjunctions and causal subordinate clauses, moved on to predicate semantics and causative constructions, then to functional-semantic fields, and most recently to force dynamics, discourse coherence, subjectivity and pragmatic inference. Each stage solved a problem the previous one left open, but each also left something out. This article reviews that body of work in general linguistics, Russian functional grammar, and the Turkic tradition (Uzbek, Kazakh, Tatar, Khakas and Karakalpak), and organises it not chronologically but by theoretical principle and object of analysis. The review shows that world linguistics has supplied strong models of the conceptual, subjective and implicit sides of causality, while Turkic grammatical scholarship has produced precise descriptions of affixes, cases, participial forms, conjunctions and complex-sentence models. The two traditions are complementary: the first tends to miss language-specific formal detail, and the second tends to stop at the sentence boundary and ignore inference. For Karakalpak, earlier work by N. A. Baskakov, A. Najimov, M. Dáwletov and A. A. Musaev established the syntactic and causative core of the system, but no study has yet integrated its lexical, morphological, syntactic, textual and pragmatic means into one model. The scientific novelty of the article lies in a four-stage periodisation of causality research and a terminological framework that separates causality, the cause-effect relation and causativity. The review concludes by identifying the specific gaps that a comprehensive study of Karakalpak should fill.

**Keywords:** Causality, cause-effect relation, causative, Turkic languages, Karakalpak, functional-semantic field, discourse coherence, literature review.

## Introduction

Few semantic relations have been studied from as many angles as causality. Philosophers have argued about its nature since antiquity; grammarians have catalogued its markers; psychologists have studied how people infer it; discourse analysts have shown that it holds texts together. For a researcher working on a less-described language like Karakalpak, this abundance is both an opportunity and a problem. There is no shortage of theory. The difficulty is knowing which parts of it fit the language, how they relate to one another, and what the existing descriptions of Karakalpak and its Turkic relatives have already established.

Karakalpak grammar has addressed causality mainly through the classification of complex sentences. The standard syntax distinguishes cause-effect and effect-cause models of asyndetic compound sentences [1], and A. Najimov's practicum on complex sentences, first issued in 1990 and republished in full in 2025, describes causal compound and complex sentences in some detail [2]. But a growing body of work in general and Turkic linguistics treats causality as something much broader than a sentence type: as a conceptual operation, a functional-semantic field, and a pragmatic strategy. These strands have not yet been brought together for Karakalpak.

This article reviews the relevant research in order to answer three questions: (1) What theoretical approaches to cause-effect relations have been developed in world and Turkic linguistics? (2) What has each contributed, and what has each left unexplained? (3) What do these findings imply for a comprehensive description of causality in modern Karakalpak?

## Methodology

The review is qualitative and analytical. Sources were selected on three grounds: they deal directly with the expression of cause-effect or causative relations; they represent a distinct theoretical approach; or they describe Karakalpak or a closely related Turkic language. The final set comprises works in general and cognitive linguistics, discourse studies, Russian functional grammar, and Uzbek, Kazakh, Tatar, Khakas and Karakalpak linguistics.

Rather than listing the studies in chronological order, the review classifies them by their theoretical principle (formal-grammatical, semantic-syntactic, functional-semantic, cognitive-discursive, pragmatic) and by their object of analysis (morpheme, word, clause, complex sentence, text). For each work, the review records what unit is analysed, how causal meaning is identified, whether implicit causality is considered, and whether the approach extends beyond the sentence. The comparative and descriptive methods were used throughout, and the findings were synthesised into a periodisation of the field and a set of implications for Karakalpak.

## Results

### *1. The formal-grammatical tradition*

The earliest systematic approach studied causality chiefly as the content of the causal subordinate clause. Its strength was precision: it identified the conjunctions, auxiliary words, case endings and verb forms that mark causal meaning, and it gave each a place in a classification. Its weakness was that, by making the formal marker the main criterion, it captured asyndetic constructions, units larger than the sentence, and implicit relations recovered from context only poorly or not at all. This tradition remains the backbone of school and university grammars in the Turkic languages, including Karakalpak.

### *2. Semantic syntax and causative constructions*

Semantic syntax shifted the focus from form to the content relation between two situations, independent of their grammatical packaging. Causality came to be seen as an asymmetric relation between predicative situations in which one is the influencing or grounding component and the other its result. This brought new factors into view: lexical semantics, predicate valency, subject-object structure and

word order. A causal conjunction ceased to be the only criterion; the meaning of predicates such as "bring about," "force," "change" or "fear" was recognised as itself capable of creating causal structure. In parallel, causatives were studied intensively as the grammaticalised form of causation. In a causative construction, a causer acts upon another participant's action or state. The construction may be realised by an affix, a dedicated causative verb, an analytic construction or a syntactic model. Causative research made it possible to see causation not merely as a logical link between two propositions but as a relation between event participants, their semantic roles, and their degree of control and influence.

### ***3. Functional-semantic and pragmatic approaches***

The functional-semantic approach studies all the units, at whatever level, that serve a single semantic content, grouping them into a field with a centre and a periphery. For causality, the centre holds dedicated causal conjunctions, causal subordinate clauses and causative verbs; the periphery holds case forms, auxiliary constructions, converbs, lexical meaning, intonation and contextual inference. The field principle explicitly allows for asymmetry between form and meaning: one form may express several meanings, and one meaning may be expressed by several forms.

Within Russian functional grammar, two contributions are directly relevant. A. M. Amatov studies cause-effect links as a general linguistic phenomenon operating across phonetic, lexical, morphological, syntactic and textual levels [3]. V. B. Evtyukhin classifies cause, condition, purpose, consequence and concession as interconnected micro-fields of a single macro-field of conditionality [4]. Together these works place causality within a system of interconnected levels and fields rather than treating it as an isolated relation.

### ***4. Cognitive and discourse approaches***

L. Talmy's force-dynamics theory is among the most influential approaches in cognitive semantics. It explains causation in broader terms than traditional causative meaning, unifying exerting force, resistance, blocking, overcoming a block, letting and restraining in a single conceptual system that applies to psychological, social, inferential and discourse domains as well as physical ones [5]. Force dynamics shows that an outcome depends not only on the causing force but on the strength of the opposing force and the inherent tendency of the affected entity. This makes it possible to capture the graded nature of causation: in compulsion the external force dominates; in enabling an obstacle is removed; in resistance the entity's natural tendency is not realised.

In cognitive linguistics more broadly, causality is studied as the human activity of conceptually linking events. Sh. Safarov notes that in a scenario each preceding action creates the conditions for the next, and that script episodes are organised through cause-and-consequence links [6]; he also characterises cognitive linguistics as an "explanatory" direction that studies human language activity in terms of cause and consequence. In frame-semantic terms, meaning is linked to concepts, prototypes and frames, so that a causal frame contains slots (the source of influence, the affected entity, the manner, the process, the resulting state) which the addressee can fill even when the text leaves them empty.

Discourse analysis treats causality as one of the main relations that make a text coherent. T. Sanders, W. Spooren and L. Noordman classify coherence relations on the basis of cognitive primitives and make causality a central parameter [7]. Their approach allowed relations to be distinguished not only by their connectives but by direction, source and the objective-subjective distinction. A. Santana and colleagues represent causality as an implicational relation  $P \rightarrow Q$  and separate objective causality in the content domain from subjective relations in the epistemic and speech-act domains [8]. Their work places explicit and implicit causality at the centre of research.

### ***5. The Turkic tradition: Uzbek***

In Uzbek linguistics, cause-effect relations were first studied extensively within the syntax of the complex sentence. G'. Abdurahmonov showed that causal meaning does not depend on conjunctions

alone but also on lexical-semantic elements within the clauses [9], an early recognition of the semantic criterion. Safarov's work in cognitive linguistics then pushed the field toward studying linguistic units in relation to the speech situation, human knowledge and communicative purpose. The main achievement of Uzbek scholarship is the demonstration that causality arises from formal markers and component semantics together; its main limitation is that analysis has mostly been confined to the sentence.

### **6. The Turkic tradition: Kazakh, Tatar and Khakas**

In Kazakh linguistics, causal compound sentences occupy a special place as "cause-consequence coordinate sentences." B. Shalabay shows that *sondıqtan* and *sol sebepti* build a model running from the cause in the first clause to the effect in the second, while *óytkeni* and *sebebi* build a model that states an event first and explains its cause afterwards [10]. He also discusses the omission of the connective: in some constructions the causal relation survives through context and component semantics, while in others the relation changes or becomes unclear.

L. G. Valieva studied causality in the Tatar literary language systematically across sentence members, complex-sentence components, introductory and parenthetical constructions, simple sentences and even paragraphs [11]. O. D. Abumova examined Khakas cause-effect constructions from the perspective of structural typology and semantic realisation [12]. These studies show that in the Turkic languages causality has to be treated as a system that covers polypredicative and textual units, not as a single two-clause model.

### **7. The Karakalpak tradition**

The history of complex-sentence research in Karakalpak goes back to N. A. Baskakov's study, which placed Karakalpak constructions within comparative Turkic syntax [13]. A. Najimov's practicum and M. Dáwletov's work on theoretical problems of complex sentences [14] became key sources for later syntactic classifications. The standard syntax of A. Dáwletov, M. Dáwletov and M. Qudaybergenov fixed the two-directional (cause-effect and effect-cause) model.

The republication of Najimov's practicum in 2025 made it possible to evaluate the earliest systematic treatment of Karakalpak causal sentences on the basis of its full text. Najimov describes the causal link between clauses as one of the basic relations that create the semantic unity of a complex sentence. He divides cause-effect compound sentences into *asyndetic* and *syndetic* types, describing their semantic structure, clause order and linking devices on Karakalpak literary examples. In *asyndetic* constructions the causal relation is expressed by intonation, predicate content and context; in *syndetic* ones, *óytkeni* and *sebebi* form an effect-to-cause ( $E \leftarrow C$ ) direction, while *sonlıqtan*, *sol sebepli* and *sonıń sebebinen* form a cause-to-effect ( $C \rightarrow E$ ) direction. Causal subordinate clauses are described on the basis of synthetic and analytic forms: *-ǵanlıqtan/-genlikten*, *-may/-mey*, *-ıp/-ip/-p*, *-ǵanı ushın*, *-ǵanı sebepli*, verb + *dep*, *-ǵannan keyin*, *-ǵan soń* and *-ıwı sebepli*.

The newest stage is represented by A. A. Musaev's comparative study of English and Karakalpak causative constructions. Musaev treats causativity as a relation with subjective and objective, psychological and interpersonal features, and shows its connection with lexical units, intonation, tempo and emotional state [15]. He finds that causative meaning in Karakalpak is realised through causative-voice affixes, transitive causative verbs, verb forms and incomplete verb constructions, argues that morphological structure alone cannot reveal the meaning of the sentence without attention to syntactic links, and applies the dynamic-force model to Karakalpak fiction through the sequence of subject, causing means and affected object.

### **8. A periodisation of causality research**

Organising the studies by principle rather than date reveals four broad stages, summarised in Table 1.

**Table 1.** Four stages in the study of cause-effect relations

| Stage                                 | Dominant focus                                              | Main contribution                                           | Main limitation                                                 |
|---------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------|
| 1. Formal-grammatical                 | causal adverbials, subordinate clauses, conjunctions        | precise inventory of markers                                | marker-bound; ignores asyndetic, textual and implicit relations |
| 2. Semantic-syntactic                 | predicate semantics, valency, causative constructions       | causation as a relation between situations and participants | largely sentence-bound                                          |
| 3. Functional-semantic                | the field principle; form-meaning asymmetry                 | all units serving causal meaning studied together           | centre-periphery boundaries often intuitive                     |
| 4. Cognitive-discursive and pragmatic | scripts, force dynamics, coherence, subjectivity, inference | explains implicit and subjective causality                  | built on other languages; misses language-specific morphology   |

The present stage does not reject any of the earlier ones. Its task is to reconcile their results within a single multi-level model.

### 9. Terminology

The literature also reveals terminological inconsistency. "Causality," "causativity," "the cause-effect relation," "grounding," "resultativity" and "causal coherence" are sometimes used interchangeably. This review proposes the following hierarchy. Causality is the broadest conceptual category. The cause-effect relation is its realisation in language and communication as a link between two situations. Causativity is a specific semantic-grammatical type in which a subject or force brings about another participant's action or change of state. The cause-effect relation is therefore wider than causativity: it also covers natural events, inner motives, epistemic conclusions, the grounding of speech acts and inter-sentential coherence. Causative constructions belong to the centre of the causal field, but they are not the whole of it.

### Discussion

The clearest finding of this review is that the two main research traditions answer different questions and are better used together than apart. Cognitive and discourse research explains the conceptual, subjective and implicit sides of causality in depth, but it was built on English, Dutch, Spanish and other languages and does not reach the formal specifics of agglutinative morphology. Turkic grammatical scholarship describes affixes, cases, participles, conjunctions and complex-sentence models with great precision, but it seldom looks beyond the sentence or at the addressee's inferences. Neither tradition alone can describe how a Karakalpak novelist builds a causal chain across several sentences using a converb in one, an ablative participle in the next, and an unmarked juxtaposition in the third.

Comparative Turkic material is valuable for showing what is shared and what is specific. The two-directional system of connectives found in Kazakh appears in Karakalpak as well. The importance of lexical-semantic content in Uzbek complex sentences applies equally to Karakalpak. And Valieva's demonstration that Tatar causality reaches as far as paragraph boundaries suggests that the same should be tested for Karakalpak prose. At the same time, similarity of form does not mean identity of function: collocations, stylistic colouring and degrees of grammaticalisation differ from language to language. Comparative data are best used as a tool for identifying general and specific features, not as a template into which Karakalpak is fitted.

The distinction between causativity and the cause-effect relation is not merely terminological. Musaev's work is a major step for Karakalpak, but its object is causative constructions. Extending its results to the whole cause-effect field (natural causation, epistemic inference, the grounding of requests and judgements, inter-sentential links) requires a broader functional-semantic and textual framework. Keeping the terms apart also allows results from different theories to be compared without contradiction.

The review has its own limits. It is confined to studies available in Karakalpak, Uzbek, Kazakh, Russian and English, and to works directly concerned with causal expression; relevant typological work on other language families has been mentioned only where it shaped the frameworks discussed. A fuller bibliographic study would strengthen the periodisation proposed here.

## Conclusion

This review traced the study of cause-effect relations from formal-grammatical classification through semantic syntax and the functional-semantic field to cognitive, discourse and pragmatic approaches. World linguistics has supplied models of causality as force interaction, event conceptualisation and discourse coherence. Uzbek scholarship has shown the joint role of formal markers and component semantics; Kazakh scholarship has described marked models running from cause to effect and from effect to cause; Tatar and Khakas studies have shown causality operating across polypredicative and textual units; and Karakalpak scholarship has established the national specifics of asyndetic complex sentences and causative constructions.

What is missing for Karakalpak is clear. Explicit syntactic models have been described relatively fully, but implicit causality, long-distance causal links in literary texts, and the competition of viewpoints have been studied much less. The centre-periphery organisation of causal units, their distribution across semantic types, and their pragmatic functions in an individual author's style have not been established on the basis of a dedicated corpus. Filling these gaps by classifying examples from Karakalpak fiction comprehensively by lexical, morphological, syntactic, textual and pragmatic features is the logical next step, and the integration of functional-semantic, cognitive and pragmatic principles reviewed here provides the methodological basis for doing so.

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