

CAUSE AND EFFECT AS A LINGUISTIC CATEGORY: LOGICAL-PHILOSOPHICAL, COGNITIVE AND PRAGMATIC FOUNDATIONS FOR STUDYING CAUSAL RELATIONS IN MODERN KARAKALPAK

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Abstract:

Causality is usually taught in Karakalpak grammar as one semantic type of the complex sentence: a clause joined to another by a conjunction such as *sebebi* or *sonliqtan*. That description is accurate as far as it goes, but it leaves most of the phenomenon outside the frame. Speakers of Karakalpak express cause and effect through nouns and verbs, case endings, participles and converbs, unmarked sequences of sentences, and inferences that the reader draws without any marker at all. This article develops the theoretical and methodological foundations needed to study that whole range. Drawing on logical-philosophical accounts of causation, Talmy's force dynamics, script and frame theory, discourse coherence research, and the functional-semantic tradition of Russian and Turkic linguistics, it proposes a working definition of the cause-effect relation for Karakalpak and separates causation from five neighbouring relations: temporal sequence, condition, purpose, concession and pretext. It then sets out a two-stage analytical model: a functional-semantic stage that fixes the direction, level, marker, explicitness and field position of each causal unit, and a pragmatic stage that determines its domain (content, epistemic or speech-act), source of subjectivity, factivity and communicative function. Five criteria are proposed for admitting unmarked (implicit) examples into a corpus. The scientific novelty of the study lies in offering the first integrated, multi-level model of causality designed specifically for Karakalpak material. The main conclusion is that causality in Karakalpak is best described not as a clause type but as a centre-periphery field whose units are selected by speakers for communicative ends.

Keywords: Causality, cause-effect relation, Karakalpak language, functional-semantic field, force dynamics, pragmatics, implicit causality, epistemic causality.

Introduction

Every language gives its speakers ways of saying why things happen. The question is never whether a language can express cause and effect, but how many ways it has of doing so, how those ways divide the work between them, and what a speaker gains by choosing one over another. For Karakalpak, a Kipchak Turkic language with rich agglutinative morphology, an extensive system of participles and converbs, and a large inventory of auxiliary words, the answer to the first question is "a great many." The answers to the other two have not yet been systematically worked out.

Existing Karakalpak grammars do address causality, but they do so mainly inside the syntax of the complex sentence. The standard university syntax of A. Dáwletov, M. Dáwletov and M. Qudaybergenov divides asyndetic compound sentences by the semantic and positional properties of their parts into "cause-effect" and "effect-cause" models, noting that the clause naming the cause may come first and its result second, or the reverse [1]. This is a useful starting point. It is not, however, a theory of causality in the language. It says little about how the same relation is carried by a noun such as *sebe* "cause," by an ablative case ending, by a converb in *-ıp*, or by two sentences placed side by side with nothing between them. Bibliographic surveys of Karakalpak linguistics show a substantial body of work on phonetics, lexicology, morphology, syntax, stylistics and the language of fiction [2]; what they do not show is a study that pulls the lexical, morphological, syntactic, textual and pragmatic means of expressing causality into one system.

The wider literature makes such a system possible. In Karakalpak linguistics, A. Dáwletov has argued that dialectical categories such as cause and effect, possibility and reality, the general and the particular are methodological tools for explaining linguistic phenomena themselves [3]. A. A. Musaev's comparative study of English and Karakalpak causative constructions treats causation as both an objective and a subjective, psychologically grounded relation, and shows that causative force in Karakalpak is graded not only by affixes but by intonation, tempo, the speaker's emotional state and attitude to the addressee [4]. Outside Karakalpak, Sh. Safarov's work on cognitive linguistics and pragmalinguistics in Uzbek treats scripts, frames, presupposition, implicature and inference as the machinery through which unspoken meaning is recovered [5], [6]. L. Talmy's force-dynamics theory recasts causation as the interaction of an agonist and an antagonist force [7]; T. Sanders, W. Spooren and L. Noordman make causality one of the cognitive primitives of discourse coherence [8]; and A. Santana and colleagues distinguish objective content causality from subjective epistemic and speech-act causality [9]. In the Russian functional tradition, V. B. Evtyukhin places cause, condition, purpose, consequence and concession together in a macro-field of "conditionality" [10], and M. V. Lyapon emphasises the gap between the objective causal link and the speaker's strategy of justification [11].

These approaches have rarely been brought to bear on Karakalpak at the same time. Grammatical descriptions catalogue markers but stop at the sentence boundary; cognitive and discourse theories explain inference and coherence but were built on other languages and do not account for Karakalpak's specific morphology. This article tries to join the two. The question driving it is: what theoretical criteria are needed to identify, classify and interpret cause-effect relations across all levels of modern Karakalpak, from the word to the literary text?

Methodology

This is a theoretical-methodological study. Its aim is not to report frequencies but to build the conceptual apparatus (definitions, distinctions and analytical criteria) that a corpus study of Karakalpak causality requires. The work proceeded in three steps.

First, the major theoretical frameworks for causality were reviewed and compared: logical-philosophical accounts (necessary and sufficient conditions, deterministic versus probabilistic causation, direct versus indirect causation), cognitive semantics (Talmy's force dynamics; scripts,

scenarios and frames as described by Safarov), discourse studies (coherence relations; objective versus subjective causality), and functional-semantic and pragmatic approaches.

Second, these frameworks were tested against Karakalpak material: examples from the standard grammars, illustrative constructed sentences checked against native-speaker norms, and passages from modern Karakalpak prose, primarily T. Qayıpbergenov's novel *Qaraqalpaq dástanı. Maman biy ápsanası*. Each framework was retained only insofar as it helped to explain a contrast that the Karakalpak data actually make.

Third, the retained distinctions were organised into an operational model with explicit criteria, so that different analysts working on the same text would classify the same example in the same way.

The methods used were descriptive analysis, conceptual and component analysis, contextual analysis, transformational testing (substituting an explicit causal marker into an unmarked sequence to check whether meaning survives), and functional-semantic and pragmalinguistic analysis. Karakalpak examples are given in the official Latin alphabet with English glosses.

Results

1. Causality as a multi-dimensional phenomenon

The first result is that causality cannot be located at a single level. It has an ontological side (an influence in the world produces a change), a logical side (one judgement grounds another), an epistemological side (how a person comes to know and explain a cause), and a linguistic side (how all of this is put into words). Language does not simply copy a ready-made philosophical category; it gives that category a form shaped by the grammar, semantic system and communicative possibilities of a particular language. A further consequence is that cause and effect are not fixed roles. Rain wets the ground; the wet ground then becomes a factor in plant growth. The "effect" of one link is the "cause" of the next, so causality is better treated as a chain of events unfolding in time than as a pair of isolated facts.

The relation can be written conventionally as $C \rightarrow E$, where C is the causing situation and E the resulting one. The arrow does not mean simple succession. That one event precedes another is necessary for causation, but it is not sufficient: a causal reading also requires an influence, a law-like link, counterfactual dependence ("had C not occurred, E would not have occurred"), or at least a justification the speaker presents as credible. In real situations a single factor is seldom both necessary and sufficient; results usually arise from several factors acting together. Language does not list them all. The speaker selects the factor he or she considers most relevant and presents it as "the cause." This selection is the point where linguistic causality begins to differ from causality in the world.

2. Parameters along which causal relations vary

The analysis identified a set of parameters along which Karakalpak causal expressions differ. They are summarised in Table 1.

Table 1. Parameters of variation in causal relations, with Karakalpak illustrations

Parameter	Poles	Karakalpak illustration
Strength	deterministic / probabilistic	keltirip shıǵardı "brought about" vs. bálkim sonıń ushın shıǵar "perhaps that is why"
Mediation	direct / indirect	Ol xabardı esitti hám reńi aǵardı "He heard the news and turned pale" (intermediate psychological link left unstated)

Parameter	Poles	Karakalpak illustration
Domain	content / epistemic / speech act	Jawın jawdı, jer ızǵarlandı / Jer ızǵar, demek, jawın jawǵan / Suwıq boldı, esikti jabıń
Factivity	factive / non-factive	Ul kelmegeni ushın jıyılıs qaldırıldı vs. Ul kelmese, jıyılıs qaldırılıwı múmkin
Agency and control	natural force / human agent / unintended act	Shamal esikti ashtı / Ol esikti ashtı / Onıń qátesi esiktiń ashıq qalıwına alıp keldi
Explicitness	marked / unmarked	sebebi, sonlıqtan vs. bare juxtaposition
Order	$C \rightarrow E$ / $E \leftarrow C$	sonlıqtan, sol sebepli vs. sebebi, óytkeni

Two of these deserve comment. The domain parameter, adapted from Santana et al., prevents three very different relations from being lumped together because they share a connective. In Jawın jawdı, jer ızǵarlandı "It rained, the ground got wet," the rain physically causes the wetness. In Kósheler ızǵar, demek, jawın jawǵan "The streets are wet, so it must have rained," the wet streets do not cause the rain; they are evidence for the speaker's conclusion. In Suwıq boldı, esikti jabıń "It has got cold, close the door," the cold is the pragmatic ground for a directive. A grammar that registers only the marker would file all three under "cause." The same holds for Úyde shıraq janbay tur, olar uyıqlaǵan bolsa kerek "There is no light on in the house; they must be asleep," which is epistemic, not physical.

The agency parameter matters for literary texts in particular. In the three sentences "The wind opened the door," "He opened the door," and "His mistake led to the door being left open," the outcome is the same, but the balance of forces, the degree of control and the allocation of responsibility are different. Whether an author attributes a cause to a person, a circumstance or fate is a stylistic and evaluative choice, and it shapes the moral portrait of a character.

3. Force dynamics: causing versus enabling

Talmy's force-dynamics model proved especially productive for Karakalpak. It describes causation as the interaction between a force tending in one direction and a force opposing it, and it distinguishes several configurations: exerting force, resisting, blocking, overcoming a block, letting (removing a block), and restraining. These operate not only in the physical world but in psychological, social, inferential and discourse domains. A person who does something májbúriy "under compulsion" reflects the dominance of an external force; one who "finds an opportunity" reflects the absence of an obstacle; one who "restrains himself" shows an internal counter-force at work.

The key distinction is between causing and enabling. A causing force acts against an entity's natural tendency and moves it into a new state; an enabling factor merely removes an existing obstacle so that the entity can follow its own tendency. Karakalpak does not always mark this difference with a dedicated form. Onı jiberdi "He sent him (away)" and Oǵan ketiwge ruxsat berdi "He allowed him to leave" produce the same outcome (the person leaves), but the configuration of forces is different. In Karakalpak prose, such distinctions have to be recovered from verb semantics, auxiliary verbs and context. Musaev has already shown that the dynamic-force model can be applied to Karakalpak literary examples through the sequence of agent, instrument and affected object; the present model extends it beyond causative verbs to the whole causal field.

4. Scripts, frames and the recovery of missing links

Cognitive linguistics explains why speakers can leave links out. Safarov describes the scenario as a structure in which each preceding action creates the conditions for the next, and the script as a set of episodes held together by cause-and-consequence links. In a "journey" script, for instance, deciding,

preparing, setting out and arriving follow in order; if the text omits one stage, the reader restores it from script knowledge. Frame semantics [12] makes the same point at the level of participants: a causal frame has slots for the source of influence, the affected entity, the manner, the process and the resulting state, and the addressee fills the empty ones. This is what allows Karakalpak authors to write compact, unmarked causal sequences such as *Ol xabardı esitti hám reñi ağardı*, where hearing, understanding, being moved and turning pale are linked by a chain of inferences of which only the first and last are stated.

5. *Boundaries with neighbouring relations*

Following Evtukhin's model of the conditionality macro-field, cause was separated from five neighbouring relations. The results are summarised in Table 2.

Table 2. Distinguishing cause from neighbouring relations

Relation	Key feature	Karakalpak contrast
Temporal sequence	succession without dependence	<i>Ol úyge kelip, kitap oqıdı</i> "He came home and read a book" (no causal link)
Condition	irreal, hypothetical, future-oriented	<i>Eger hawa ashılsa, jolğa shıǵamız</i> "If the weather clears, we will set off" vs. <i>Hawa ashılǵanı ushın jolğa shıqtıq</i> "We set off because the weather cleared"
Purpose	not-yet-realised intended outcome	<i>Suwıq bolǵanı ushın aynanı japtı</i> "He closed the window because it was cold" vs. <i>Úy jılısın dep aynanı japtı</i> "He closed the window so that the house would warm up"
Concession	expected causal link is overridden	<i>Jawın jawsı da, ol jolğa shıqtı</i> "Although it was raining, he set off"
Pretext (<i>báne, sıltaw</i>)	presented as a cause, not the real determinant	revealed by context, irony, or the character's earlier actions

Concession turned out to be a form of hidden causality: in *Jawın jawsı da, ol jolğa shıqtı*, rain is conceptualised as a potential reason not to set off, but its force is defeated. In fiction, such constructions emphasise a character's resolve or a surprising turn of events. Pretext is the most important boundary for literary analysis. A motive is the inner need, value or intention that drives a conscious action; a pretext is the justification a person offers others for that action. The two need not coincide, and authors frequently exploit the gap. A causal connective shows that something is presented as a cause; it does not guarantee that it is one.

6. *Explicit and implicit causality and the corpus criteria*

In explicit causality the relation is marked by a dedicated lexical or grammatical unit; in implicit causality it is recovered from background knowledge, context, the order of events and pragmatic inference. Safarov treats context, relevance, presupposition, implicature and inference as the mechanisms through which unstated content is understood. The absence of a marker therefore does not mean the absence of a relation. But the opposite error is equally real: not every pair of adjacent sentences is a cause and its effect. To guard against over-interpretation, the study proposes five criteria that an unmarked example must satisfy before it is admitted into a corpus as causal:

1. the components are related in content (semantic relevance);
2. the second situation follows naturally or contextually from the first;
3. inserting a causal marker (*sebebi, sonlıqtan, -ǵanlıqtan*) does not seriously distort the basic meaning;
4. the subsequent text does not cancel the causal interpretation;

5. at least two independent semantic signals support the relation.

These criteria reduce the researcher's reliance on intuition and make the classification of implicit examples reproducible.

7. *The functional-semantic field of causality in Karakalpak*

Combining the "meaning-to-form" and "form-to-meaning" directions of analysis yields a centre-periphery field. Starting only from form leaves implicit and textual causality outside the description; starting only from meaning risks expanding the field without limit. Checking each direction against the other gives the field its boundaries. The resulting structure is shown in Table 3.

Table 3. Structure of the causal functional-semantic field in modern Karakalpak

Zone	Units	Basis for placement
Centre	causal conjunctions and connectives (sebebi, sonlıqtan, sol sebepli); causal subordinate-clause forms (-ğanlıqtan, -ğanı ushın, -ıw sebepli); causative verbs; lexemes directly naming cause and effect (sebep, nátiyje)	causal meaning is primary, context-independent and explicit
Near periphery	case-and-postposition constructions; participial and converbial constructions; adverbials of cause	causal meaning is regular but shares the form with temporal, spatial or modal meanings
Far periphery	asyndetic compound sentences; lexical-semantic relations between predicates; intonation; word order; textual sequence; pragmatic inference	causal meaning depends on context and on the addressee's knowledge

Six criteria were used to place units in the field: whether causal meaning is primary or secondary for the unit; the marker's independence from context; productivity; stylistic neutrality; whether both cause and effect are overtly expressed; and how easily the relation can be reconstructed. The boundary between centre and periphery is not rigid. In a given context, a peripheral unit can express causality very clearly.

8. *A two-stage analytical model*

The final result is a two-stage algorithm for analysing any causal example. At the functional-semantic stage, the analyst identifies the cause and effect components, their direction ($C \rightarrow E$ or $E \leftarrow C$), the language level at which the relation is expressed, the type of marker, the degree of explicitness, and the unit's place in the field. At the pragmatic stage, the analyst determines the domain (content, epistemic or speech act), whose viewpoint the cause is presented from (author, character, collective opinion), the factivity of the situations, the supporting context, and the communicative function (explaining, justifying, persuading, shifting blame, grounding a request). Following E. V. Klobukov's distinction between dictum and modus [13], the first stage largely concerns the dictum, that is, the link between situations, and the second the modus, that is, the speaker's belief, assessment and intent.

Discussion

The central claim of this study is that the familiar description of causality as a type of complex sentence is not wrong but too narrow. The material reviewed here suggests that it captures the centre of the field and misses most of the rest. That has practical consequences: a corpus built only by searching for sebebi and sonlıqtan would systematically under-represent the converbial, participial and unmarked causal constructions that dominate narrative prose, and would therefore misrepresent how Karakalpak authors actually build causal chains.

The domain distinction is probably the single most useful import from discourse studies. Karakalpak connectives such as demek "so, therefore" and sonlıqtan "therefore" can introduce physical

consequences, conclusions and justifications for requests alike. Without the content/epistemic/speech-act distinction, these uses would be classified together on formal grounds, and the clear functional differences between them, differences that Santana et al. show matter for subjectivity in discourse, would disappear from the description. This is consistent with Abdurahmonov's early observation for Uzbek that causal meaning in compound sentences depends not only on conjunctions but on the lexical-semantic content of the clauses themselves [14], and with Shalabay's analysis of Kazakh, where *sondiqtan* and *sol sebepti* build cause-to-effect structures while *óytkeni* and *sebebi* build effect-to-cause ones [15]. Karakalpak shares this two-directional system [16], and the model proposed here treats direction as an information-structure choice rather than a mere syntactic fact: putting the cause first develops events in natural chronological order, while putting the effect first makes it the focus and then explains it.

Force dynamics fills a gap that neither grammar nor discourse theory addresses well: the difference between making something happen and letting it happen. For a language in which causative affixes are productive and often polysemous (the same form can mean compelling, commissioning, permitting or simply bringing about a state), this distinction is not a refinement but a necessity. It also connects naturally to Musaev's anthropocentric reading of causation, in which changing the addressee's state, pushing someone to act, or influencing the course of events are all causal relations between people rather than between things.

The five criteria for implicit causality are offered as a practical safeguard rather than a final solution. They are deliberately conservative: an example that fails any one of them is excluded. This means the resulting corpus will probably undercount implicit causality somewhat, but it will not inflate it, and the classification will be reproducible. That trade-off seems the right one for a first systematic description. Several limitations should be noted. The model is built on theoretical analysis and illustrative material rather than on a fully annotated corpus; the frequencies of the various types in Karakalpak texts remain to be established. The prose examples come mainly from one major novel [17], and genre differences (historical epic, contemporary short fiction, journalism, everyday speech) may redistribute the field in ways not yet visible. Finally, intonation, which grammars list among the means of signalling causal links in asyndetic sentences, can only be inferred from punctuation in written texts; an experimental phonetic study would be needed to describe it properly.

Conclusion

This article set out to build the theoretical foundations for describing cause-effect relations in modern Karakalpak as a whole rather than as a single clause type. On the basis of logical-philosophical, cognitive, discourse-analytic and functional-pragmatic approaches, it defines the cause-effect relation in Karakalpak as the conceptualisation of one event, state, property, judgement or speech act as a factor that brings about another, as evidence for recognising it, or as a pragmatic ground for performing it, together with the explicit or implicit expression of that link through lexical, morphological, syntactic or textual means. This definition covers objective, epistemic and speech-act causality while requiring that causation be kept distinct from temporal sequence, condition, purpose, concession and pretext.

The relation is organised as a centre-periphery functional-semantic field, with dedicated conjunctions, causal subordinate forms, causative verbs and causal lexemes at the centre; case and participial constructions in the near periphery; and asyndetic sequences, predicate semantics, intonation and pragmatic inference at the far periphery. A two-stage model (functional-semantic, then pragmatic) and five criteria for admitting implicit examples make this description operational.

The next steps follow directly: applying the model to a larger annotated corpus of Karakalpak prose, quantifying the distribution of causal types by level and genre, and comparing the results with Uzbek, Kazakh and other Turkic languages under the same criteria. Causality is where grammar, cognition and

rhetoric meet, and Karakalpak offers an unusually rich place to observe that meeting.

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