

# Local Topological Effects of Questions: A Preliminary Analysis of High Curvature and Center Dependency

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## Abstract

This paper examines a structural phenomenon in questioning that has received relatively limited independent attention: some question sequences do not follow typical patterns of linear discourse progression.

In many existing approaches, questions are primarily understood as information-seeking acts or interactional moves that unfold through sequential response structures. Within such frameworks, later utterances are often assumed to depend primarily on immediately preceding ones, thereby forming local linear chains.

This paper identifies a different structural pattern. In some question sequences, later questions do not primarily respond to the immediately prior question. Instead, they repeatedly orient toward a problem center that remains **not yet stably accessible** and difficult to enter directly. Under such conditions, the relationship between questions is better described as **center dependency** rather than linear dependency.

When this occurs, questioning may display non-linear exploratory behaviors rather than straightforward sequential progression. This paper therefore proposes that some questions can be understood as **local topology events** embedded within broader discourse: they temporarily alter local patterns of progression without determining the structure of the entire discourse.

Building on this distinction, the paper differentiates three question states: **open-field questions** (the problem space remains underdetermined), **constrained-path questions** (the answer remains unknown but available pathways are relatively limited), and **structurally closed questions** (surface interrogatives in which the space of inquiry is already highly restricted).

Methodologically, the paper draws on approximately ninety publicly available Reddit examples as materials for structured conceptual observation. The goal is not statistical generalization, but to examine whether these structural distinctions can be observed consistently across different contexts.

This paper argues that not all questions open information gaps through linear progression. Some

questions temporarily reorganize local discourse movement, and **center dependency** may represent an important but underexamined structural form of questioning.

## Chapter 1. Introduction: Why Some Questions Do Not Behave Like Linear Progression

### 1.1 How Questions Are Typically Understood

In existing language research, questions are most commonly understood as linguistic forms associated with information gaps. One of the most common approaches treats questions as forms of **information-seeking behavior**, in which speakers mark an unknown state and expect subsequent responses to provide relevant information. Within this framework, the primary function of questions is often located in information retrieval, knowledge updating, or the temporary management of uncertainty.

Beyond information-seeking models, questions are also frequently analyzed within speech act frameworks. From this perspective, questions are treated as specific pragmatic actions whose functions may include requesting information, maintaining politeness strategies, or performing acts such as irony, skepticism, or challenge in particular contexts.

In conversation analysis and discourse studies, questions are often examined through frameworks such as adjacency pairs, including question-answer sequences, repair sequences, and other predictable response structures. These approaches emphasize how questions generate response expectations and how subsequent responses fulfill, reject, or deviate from those expectations.

Many discourse and dialogue models do not focus on questions as their primary object of analysis. However, they often still assume that discourse primarily moves through forms of **local sequential dependency**: later utterances are expected to respond primarily to conditions established by immediately preceding ones, thereby extending local semantic continuity.

These frameworks remain highly effective for explaining many common functions of questioning in information exchange and interactional organization.

However, this paper identifies a different structural pattern. In some consecutive question sequences, later questions do not primarily respond to the immediately preceding question. Instead, they repeatedly approach the same problem center from different angles—a center that remains difficult to access directly and has not yet become structurally stable.

Under such conditions, the relationship between questions is not primarily organized through linear dependency. It is better understood as a form of **center dependency**.

### 1.2 An Anomalous Pattern: When Consecutive Questions No Longer Display Linear Progression

Although the frameworks discussed above successfully explain many common uses of questions, this paper identifies a type of phenomenon that is more difficult to fully capture through linear models alone.

In more typical cases, questions often follow relatively clear interactional expectations. After a question is asked, subsequent utterances may directly provide answers, offer additional information, or otherwise respond to the original inquiry. In such cases, the basic structure can be simplified as:

**Q -> A**

In other cases, consecutive questions may still form relatively linear progression. A later question builds on conditions established by an earlier one and continues moving along an existing direction:

**Q1 -> Q2 -> Q3**

In this structure, later questions primarily depend on preceding questions, forming local sequential dependency.

However, some question sequences appear to follow neither of these patterns.

In these cases, later questions do not primarily respond to previous ones, nor do they necessarily move forward along a single path. Instead, they repeatedly approach a shared problem center from different angles. The relationship between questions is therefore not primarily organized through linear continuation, but through repeated orientation toward the same unresolved center:

Q1 -> center

Q2 -> center

Q3 -> center

For example:

*Do you love me more than the sun?*

*Than water?*

*Than air?*

In this sequence, the later questions are not simply extending the informational content of the previous question, nor are they functioning as independent requests for information. Instead, they repeatedly approach a deeper problem center that remains difficult to articulate directly—questions concerning one's relational importance, emotional security, or perceived value to another person.

A similar pattern can be observed in sequences such as:

*Why did they leave?*

*Was I not good enough?*

*Could I have done something differently?*

*Am I worth loving?*

Although these questions appear to ask about different topics on the surface, their structural movement does not fully resemble linear progression. Instead, they repeatedly approach overlapping concerns related to loss, self-worth, responsibility, and relational explanation.

This does not suggest that existing theories of questioning are incorrect. Rather, it suggests that alongside information exchange and linear sequencing, some questions may involve a different type of local structural phenomenon that has received relatively limited independent attention.

The central motivation of this paper begins here:

**when questions no longer move linearly, what exactly is happening within discourse structure?**

### 1.3 Research Problem: How Some Questions Reconfigure Local Discourse Topology

Building on the anomaly identified above, this paper asks a narrower structural question: what kinds of local structural reorganization emerge when questions no longer follow ordinary sequential dependency?

This paper argues that some question sequences are better understood as local structural events that temporarily reorganize discourse movement.

It provisionally describes these shifts as **local topological effects**.

The term topology is used here as a descriptive concept rather than a mathematical claim. It refers to temporary local changes in discourse organization, including bending, concentration, collapse, and redirection.

Accordingly, the central goal of this paper is not to redefine questions in general, but to examine how certain questions temporarily reorganize local discourse structure when ordinary linear progression weakens.

### 1.4 Scope of Analysis and Research Boundaries

Because the phenomenon examined in this paper is relatively specific, its analytical scope is intentionally narrow.

First, this paper is not concerned with the formal syntax of interrogatives. It does not examine issues such as *wh*- structures, auxiliary inversion, or other sentence-level syntactic configurations, because the structural differences examined here primarily emerge between consecutive questions rather than within individual interrogative forms.

Second, this paper does not attempt to reconstruct a full conversation analysis framework. In real interaction, questions may involve turn-taking, repair organization, politeness negotiation, and other complex social dynamics. However, the materials used in this paper primarily consist of relatively short discourse segments. The goal is to observe how questions alter local patterns of progression within discourse, rather than to reconstruct entire interactional processes.

Methodologically, the corpus used in this paper functions primarily as material for structural observation. It is used to examine whether different question structures can be repeatedly observed across multiple contexts.

This paper does not aim for statistical generalization, nor does it attempt to estimate the overall distribution of different question types in language use more broadly.

Its objective is therefore relatively focused: to use limited but comparable naturalistic examples to describe a relatively underexamined **local structural phenomenon** in questioning and to provide a preliminary framework for future large-scale validation.

## Chapter 2. Linear Dependency vs. Center Dependency

### 2.1 Declarative Chains as a Baseline Model of Linear Dependency

Before examining the distinctive structure of certain question sequences, this paper first establishes a baseline model for what more typical linear progression often looks like.

In many everyday discourse segments, utterances unfold through relatively stable forms of sequential dependency. Earlier utterances provide local conditions—such as contextual information, causal background, narrative states, or evaluative framing—and later utterances extend from those previously established conditions.

Under such conditions, later utterances are typically interpreted as depending primarily on immediately preceding ones.

This structure can be simplified as:

**A -> B -> C**

In this model, later utterances primarily depend on earlier ones, and discourse progresses along a relatively continuous direction. Although these sequences may involve emotional content, narrative development, or evaluative reasoning, their underlying structure still tends to display relatively clear linear dependency.

This type of linear chaining frequently appears in narrative discourse, causal explanation, self-reflection, and argumentative discourse.

For example:

*I missed the interview.*

*I overslept this morning.*

*My phone alarm never went off.*

Although the content of this sequence is relatively simple, its progression remains strongly linear. Each utterance provides conditions that make the following utterance more interpretable. The discourse moves through a relatively continuous explanatory chain rather than repeatedly returning to the same unresolved issue.

If the middle utterance is removed, the interpretability of the later utterance often becomes weaker. For example, moving directly from “*I missed the interview*” to “*My phone alarm never went off*” may still remain understandable, but the local progression becomes noticeably less stable because an intermediate explanatory step has been removed.

This paper does not argue that all declarative discourse strictly follows linear models, nor does it claim that discourse structures can be reduced to a single pattern. However, in many ordinary cases, sequential dependency remains a common baseline structure of discourse progression.

Establishing this baseline makes it easier to identify how certain question sequences depart from this more typical pattern and display a different form of dependency.

## 2.2 Center Dependency in Questions: A Non-Linear Structure of Inquiry

In contrast to the linear chaining structure discussed in the previous section, this paper identifies a different dependency pattern in certain consecutive question sequences.

In these cases, later questions do not primarily build on the local conditions established by earlier questions. As a result, their structural relationships do not fully conform to sequential linear dependency.

Instead, multiple questions often organize themselves around a shared problem center that is not directly articulated, yet continues to shape the direction of inquiry.

This structure can be provisionally represented as:

Q1 -> center

Q2 -> center

Q3 -> center

In this model, the primary relationship between questions is not linear chaining. Instead, multiple questions repeatedly orient toward the same underlying problem center.

This center does not always appear as an explicit proposition. Rather, it functions as an implicit reference point that continues to organize subsequent inquiry.

For example:

*Do you love me more than the sun?*

*Than water?*

*Than air?*

Under a strictly linear model, these may appear to be three sequentially unfolding questions.

However, closer examination suggests otherwise.

For example:

- “*Than air?*” does not require “*Than water?*” in order to remain interpretable.
- “*Than water?*” is not a necessary structural prerequisite for “*Than air?*”

Instead, these questions repeatedly approach a deeper concern that remains difficult to articulate directly, such as relational importance, emotional security, or irreplaceability.

The primary relationship between these questions is therefore not sequential dependence, but shared dependence on the same underlying center.

This distinction becomes especially visible through a simple removal test: when one intermediate question is removed, the remaining questions often remain broadly interpretable because their primary dependency is directed toward the same center rather than toward one another.

Unlike more conventional information-seeking models, the defining feature of this structure is not simply filling a single information gap. Instead, it involves repeated attempts to approach a problem

space that has not yet become fully accessible.

This paper provisionally refers to this structure as **center dependency**, in order to distinguish it from the linear dependency discussed in the previous section.

This distinction does not suggest that all consecutive questions follow center dependency. Rather, it proposes that when certain question sequences no longer unfold linearly, traditional sequential models may become insufficient for fully describing their internal organization.

### 2.3 The Removal Test: An Operational Criterion for Distinguishing Linear Dependency from Center Dependency

To further distinguish between **linear dependency** and **center dependency**, this paper proposes a preliminary operational criterion: the **removal test**.

The central question is relatively simple:

**If an intermediate question is removed from a sequence, does the later question remain relatively interpretable?**

In more typical linear chains, later utterances often depend heavily on local conditions established by earlier ones. When an intermediate node is removed, the original chain of progression is often disrupted, and the interpretability of later utterances may decline significantly.

By contrast, in center-dependent structures, later questions often do not primarily depend on immediately preceding questions. Instead, they remain connected through a shared underlying center.

As a result, removing an intermediate question may leave the broader direction of inquiry largely intact.

This does **not** mean that the sequence remains fully identical after removal. Rather, it suggests that the central orientation of inquiry often remains structurally stable even when a single intermediate question is removed.

For example:

*Do you still love me?*

*How can you tell me I'm beautiful without looking at me?*

*Why does it feel like you are programmed to say you love me?*

Although these questions address different surface-level concerns, their deeper orientation repeatedly returns to overlapping concerns such as:

- whether love remains genuine
- whether emotional expression remains sincere
- whether relational connection is deteriorating

If the middle question is removed:

*How can you tell me I'm beautiful without looking at me?*

the final question often remains relatively interpretable because its primary dependency is not directed toward the immediately preceding question, but toward the broader unresolved center.

A similar pattern appears in sequences such as:

*Why did they leave?*

*Was I not good enough?*

*Could I have done something differently?*

*Am I worthy of being loved?*

Although these questions ask different things on the surface, they repeatedly return to overlapping concerns involving abandonment, self-worth, responsibility, and relational failure.

If the question:

*Could I have done something differently?*

is removed, the final question:

*Am I worthy of being loved?*

often remains broadly interpretable because the inquiry continues to return to the same underlying center.

This paper does not claim that the removal test constitutes a strict formal criterion, nor does it suggest that all cases can be cleanly divided into binary categories.

Some sequences may contain both linear and center-dependent features.

However, as a preliminary diagnostic tool, the removal test helps identify whether consecutive questions primarily depend on local chaining or whether they display a shared orientation toward an underlying center.

### **Chapter 3. Open-Field Questions: From Linear Flow to High-Curvature Inquiry**

This paper does not argue that the categories discussed here constitute fully discrete classifications. In real discourse data, different question sequences may display transitional or hybrid states.

The distinctions proposed in this paper are primarily intended to improve structural comparability.

#### **3.1 From Linear Continuation to Center Dependency**

Linear question structures do appear in many information-oriented questions.

For example:

*Do you use an SFF case?*

*If so, can you tell me more about your CPU temperatures?*



In this example, the second question clearly depends on conditions established by the first one. If the first question is removed, the phrase “*if so*” loses its referential basis, and the structural coherence of the sequence becomes noticeably weaker.

This type of question sequence aligns more closely with conventional linear progression: later questions depend on earlier ones and continue moving along an existing informational path.

However, the type of question sequence examined in this paper often cannot be fully explained through this model.

For example:

*Do you love me more than the sun?*

*Than water?*

*Than air?*

On the surface, this sequence also appears to involve consecutive questioning. However, its internal structure does not resemble typical linear progression.

The second and third questions do not primarily build on newly established information from previous questions. Instead, they repeatedly approach the same underlying concern from different angles.

Even if the middle question is removed:

*Do you love me more than the sun?*

*Than air?*

the sequence remains broadly interpretable, and its central concern does not disappear.

This suggests that the stability of this type of questioning does not primarily emerge from adjacent chaining, but from repeated orientation toward a shared center.

In this case, although the surface-level comparisons involve the sun, water, and air, the deeper question being repeatedly tested is closer to:

**Am I irreplaceable to you?**

A similar pattern appears in sequences such as:

*How can I trust that someone will still be here tomorrow?*

*How can I trust anyone after being lied to for so long?*

Here, the second question is not simply the natural next step of the first one. Instead, it re-enters the same underlying concern from a different angle: whether trust itself has fundamentally collapsed.

This paper therefore argues that when certain question sequences can no longer be adequately explained through adjacent dependency, the issue is not structural disorder.

Rather, their dependency pattern has shifted from linear continuation toward a different organizational structure.

The relative stability of these sequences emerges less from local chaining and more from multiple questions repeatedly orienting toward the same underlying center.

The following sections examine how this broader open-field structure can produce multiple distinct inquiry patterns.

### **3.2 Unstable Centers: When Shared Centers Have Not Yet Fully Formed**

The previous section argued that the structural stability of some question sequences does not primarily emerge from adjacent linear chaining, but from multiple questions orienting toward a shared center.

If this is the case, a further question immediately follows:

**what exactly is this center?**

One possible misunderstanding would be to treat the center as a fully formed but unspoken proposition—for example, a hidden answer, a single underlying fact, or a clearly defined question waiting to be revealed.

This paper argues that many real examples do not fit such an overly stable interpretation.

In many cases, multiple questions may orient toward the same central region, while that center itself remains highly unstable.

It may not yet have formed into a clearly articulated proposition, may not yet be stably named, and may not even possess boundaries clear enough to be directly questioned.

In such cases, what questioning circles around is not a fully formed center, but an evolving problem space.

For example:

*Should I hire a career coach?*

*How do I know whether I need to make changes or not?*

*I don't know what to do with myself.*

On the surface, these questions appear to concern specific decisions, such as whether to hire a career coach or whether a life adjustment is needed.

However, closer examination suggests that these questions do not converge on a single clearly formulated proposition.

What persists instead is a broader instability concerning direction:

**What should I do with my life?**

This center is not completely inaccessible, but its boundaries remain unstable enough that the speaker repeatedly approaches it through smaller local questions.

A similar pattern appears in more abstract examples:

*Why am I still here?*  
*Why haven't I moved on at all?*  
*Is this where I'm supposed to be?*

Here, multiple questions again orient toward a shared center, but the center is no longer a specific decision problem. It is closer to a broader experience of existential stagnation.

The speaker can sense that a problem exists, but cannot yet compress it into a single operational question.

Under higher emotional pressure, this instability may expand even further.

For example:

*I don't understand.*  
*I want the love and fulfillment that other people seem to have.*  
*Was I such a bad person in another life that I'm being punished in this one?*  
*I don't know.*  
*My head hurts.*  
*I just wanted to enjoy life like everyone else.*

Here, the problem center becomes even more diffuse. Personal value, fate attribution, life dissatisfaction, and emotional pain begin to overlap, making the center increasingly difficult to stabilize.

At this point, questioning no longer functions as movement toward a single answer. Instead, it oscillates across multiple partially formed problem regions.

This paper refers to these structures as **unstable centers**.

Their defining feature is not the absence of a problem, but the fact that the center has not yet become propositionally stable.

In such cases, the center may remain propositionally unstable, boundary-ambiguous, and continuously shifting across overlapping problem regions.

Center dependency therefore does not necessarily imply a clear center.

In many cases, questioning becomes repetitive precisely because the center remains insufficiently stabilized to be compressed into a single directly manageable problem.

### **3.3 Orbital Progression: Non-Linear Circulation Around a Perceived Center**

If the unstable centers discussed in the previous section describe situations in which the problem center has not yet fully formed, another type of questioning displays a different structure.

In these cases, speakers often possess a clearer sense of the underlying problem, yet their inquiry still does not move toward direct linear convergence.

Instead, they repeatedly approach the same center through circling movements, lateral entry, and repeated shifts in angle.

The defining feature of these sequences is therefore not the complete absence of a recognizable center.

Rather, the center is partially perceived, but direct access remains difficult.

As a result, questioning moves through repeated orbital patterns rather than direct linear progression.

For example:

*So I started hanging out with other guys, and I kept asking myself:*

*Am I alone in feeling this emptiness?*

*Are you loving someone else?*

*Would you ever come back to me?*

*Why can't you give me what I deserve?*

*Am I still yours?*

*Do you still miss me dancing in the shower?*

On the surface, these questions address different issues: loneliness, the possibility of a third party, reconciliation, self-worth, relational identity, and intimate memory.

However, they are neither independent questions nor examples of conventional linear progression.

Each question repeatedly re-enters the same central region from a different angle.

At a deeper structural level, the recurring center is closer to:

### **Am I still loved, chosen, and irreplaceable?**

This center is not resolved by any single question. Instead, it is repeatedly tested through multiple angles of approach.

This differs from unstable centers because the speaker often has a stronger sense of where the center is located.

The difficulty lies not in identifying the center, but in reaching it directly through a single path.

A similar pattern appears in lower-intensity examples:

*What do you make of this?*

*Am I actually anxiously attached?*

*Or am I more fearful-avoidant?*

Here, the speaker again circles around a central identity question.

The sequence does not progress linearly. Instead, it moves back and forth across different interpretive frameworks of self-understanding.

The deeper center is closer to:

### **How should I understand my own relational patterns?**

Although the emotional intensity is lower, the structural movement remains distinctly orbital.

This paper refers to this pattern as **orbital progression**.

Its defining features include:

- multiple questions orient toward the same center
- each question changes the angle of approach rather than simply adding new information
- questions may repeatedly return to the same center
- progression becomes circular rather than linearly convergent

The repetitive quality of these sequences should not be interpreted as simple inefficiency.

Rather, repetition often emerges because the system is using multiple pathways to approach a center that is already perceived but remains difficult to reach directly.

If unstable centers describe situations in which the center has not yet fully formed, orbital progression describes situations in which:

**the center is perceived, but direct access remains difficult.**

When even repeated circling fails to produce sufficient access, questioning may move into the higher-threshold patterns discussed in the following section.

### **3.4 Threshold-Based Access: When the Problem Center Is Too Costly to Approach Directly**

The orbital structures discussed in the previous section describe how questioning repeatedly approaches the same center through multiple angles.

However, another type of questioning reflects a different constraint.

In these cases, the speaker often has a relatively clear sense of what the core question is, yet still cannot directly approach it.

This difficulty does not emerge because the center is unclear, nor simply because information is missing.

Rather, the center itself carries excessive emotional cost, psychological risk, or destabilizing consequences.

The problem is not:

**“I do not know what to ask.”**

The problem is closer to:

**“Can I survive what happens if I ask this directly?”**

As a result, the system often avoids immediate direct contact.

Instead, it moves through lower-cost probing, partial contact, and repeated tests of emotional tolerance before approaching the center itself.

For example:

*Do I even dare to find out your answer?*

*Would it crush me if it were no?*

*Would I be able to smile and bury the flames of this never-ending love I still have for you?*

*Would I be able to swallow my pride and tell you that I still feel the same?*

*Would I even be able to hold myself together?*

What is structurally significant here is that the speaker repeatedly explores the consequences of receiving an answer without directly asking the underlying question itself.

The sequence repeatedly tests:

- whether the answer can be tolerated
- whether rejection can be survived
- whether emotional control can be maintained
- whether personal stability can be preserved

Meanwhile, the underlying question:

**Do you still love me?**

remains structurally present but explicitly delayed.

This suggests that the system is already extremely close to the center, but direct contact is postponed because the perceived cost is too high.

A related pattern appears in more gradual escalation sequences:

*Do you still love me the way you say you do?*

*I want to know.*

*How can you tell me I'm beautiful without even looking at me?*

*Why does it feel like you're programmed to say you love me every five minutes, yet it never feels real?*

Here, questioning does not immediately move toward maximal exposure.

Instead, the sequence gradually increases contact intensity.

Earlier questions remain relatively safer, while later questions move toward more destabilizing concerns regarding authenticity, trust, and emotional reality.

A simpler version appears in sequences such as:

*Have you moved on?*

*Do you still love me?*

The first question creates a lower-risk entry point, while the second moves toward more direct contact with the center.

This paper refers to these structures as **threshold-based access**.

Their defining features include:

- the center is relatively clear
- direct access carries high psychological cost
- the system often performs lower-cost tests first
- direct articulation of the core question may be delayed
- questioning may either eventually reach the center or remain in pre-contact states

The distinctive feature of these questions is therefore not simple uncertainty about an answer.

Rather, they test whether the speaker can tolerate the structural consequences of allowing the answer to fully enter the system.

When high-curvature questioning produces actual local instability, discourse often requires mechanisms of re-stabilization.

This leads to the next section.

### **3.5 Declarative Stabilization: Stabilization After High-Curvature Questioning**

The previous sections examined how questioning can move beyond simple linear continuation and shift toward structures such as center dependency, unstable centers, orbital progression, and threshold-based access.

However, when questioning becomes highly concentrated around a core problem, another consequence often emerges:

existing pathways of discourse may become temporarily disrupted, and local interpretive stability may begin to weaken.

In other words, the function of some questions is not simply to obtain answers.

Instead, they temporarily open multiple possible pathways, pushing previously stable discourse movement into high-curvature regions.

When this local instability continues to expand, subsequent discourse often requires some form of re-stabilization so that understanding can regain a sustainable path.

This paper refers to this phenomenon as **declarative stabilization**.

The defining feature of declarative stabilization is that later declarative statements do not primarily function as ordinary informational continuation.

Instead, they stabilize local instability produced by earlier questioning and help discourse return to a more sustainable trajectory.

For example:

*Why did they leave?*

*Was I not good enough?*

*Could I have done something differently?*

*Am I worthy of being loved?*

*It can help to slowly address those haunting thoughts.*

Here, the consecutive questions repeatedly push discourse toward an unstable center involving self-worth, responsibility, and abandonment.

Each question opens additional uncertainty, gradually moving the discourse further away from stability.

The subsequent statement:

*It can help to slowly address those haunting thoughts.*

does not function as ordinary informational expansion.

Instead, it acts as a stabilizing intervention.

Declarative stabilization therefore does not refer to all declarative statements that follow questions.

They refer specifically to declarative moves that emerge after high-curvature questioning in order to restore local stability.

If the previous sections describe how questioning can temporarily move discourse away from linear progression, this section highlights an equally important point:

**high-curvature questioning is not necessarily an endpoint.**

When questioning pushes discourse into unstable regions, language often generates new pressures toward stabilization—and declarative stabilization is one common mechanism through which that stabilization occurs.

This helps explain why questioning may temporarily disrupt narrative flow without necessarily producing total structural collapse.

## **Chapter 4. Constrained-Path Questions**

### **4.1 Unknown Answers Do Not Necessarily Create Open Fields**

The high-curvature question structures discussed in the previous chapter primarily involve situations in which the problem center remains difficult to stabilize or directly access.

In such cases, speakers may sense that an important underlying problem exists, but they struggle to clearly formulate it through a single question.

As a result, questioning often takes the form of repeated non-linear approximation.



However, unknown answers do not automatically produce this type of structure.

In everyday language use, many questions also involve unknown answers without displaying strong high-curvature characteristics.

Speakers may not know what the correct answer is, while still possessing a relatively clear understanding of the broader problem space and its major available pathways.

Under these conditions, answers remain uncertain, but the structure of inquiry may still remain relatively stable and directional.

In other words:

**an unknown answer is not the same thing as an open field.**

An unknown answer simply means that the speaker has not yet reached a final answer.

An open field, by contrast, refers to situations in which the speaker has not yet stabilized the core structure of the problem itself, including its major pathways, boundaries, or organizing center.

For example:

*Should I switch my major?*

*Should I finish my degree and try to get a certificate?*

*Should I try substitute teaching first?*

In this example, the speaker clearly does not know the final answer.

However, the problem space itself remains relatively structured.

The major pathways are already identifiable:

- switching majors directly
- finishing the current degree before obtaining certification
- testing career fit through substitute teaching first

Although uncertainty remains, the inquiry space is relatively constrained.

These questions do not display the repeated circling, lateral entry, or threshold escalation discussed in the previous chapter.

This example demonstrates that uncertainty alone is insufficient to generate high-curvature questioning.

The more important distinction concerns whether the problem space itself remains structurally recognizable.

This paper therefore distinguishes between **open-field questions** and **constrained-path questions** in order to avoid treating all genuine questions as high-curvature phenomena.

## 4.2 Structured Path Exploration: Limited Search and Local Re-Linearization

In **constrained-path questions**, speakers may still lack a final answer, but their inquiry typically occurs within a relatively limited and recognizable problem space.

Compared with the open-field questions discussed in the previous chapter, these sequences are less likely to involve repeated circling, lateral entry, or threshold-based access.

Their direction of inquiry is usually more predictable.

The defining feature of these questions is that speakers are often able to identify several relatively clear pathways, but remain uncertain about which one should be selected.

As a result, later questions often function less as attempts to identify a hidden center and more as efforts to compare options, rank alternatives, assess risk, and plan execution.

For example:

*Should I switch my major to education?*

*Should I finish my communication degree and try to get a teaching certificate?*

*Should I try substitute teaching first to make sure I would enjoy being a teacher?*

In this example, the speaker is not completely unable to identify the direction of the problem.

On the contrary, the major pathways are already relatively clear:

- switching majors directly
- keeping the current degree while pursuing certification
- testing career fit through lower-risk experimentation

Although uncertainty remains, the inquiry primarily occurs between limited alternatives rather than through repeated attempts to identify an unstable center.

As the problem space becomes more constrained, these questions may even begin to display local forms of linear progression.

For example:

*What do you want to do?*

*Where do you want to be in a year?*

*In three years?*

*What are the next steps toward getting there?*

*Just applying for jobs?*

*Certifications?*

Although uncertainty remains present, the broader movement of this sequence becomes noticeably more linear:

**goal clarification**

-> **time horizon clarification**

-> **action planning**

-> **implementation clarification**

For example, the question “*Certifications?*” depends heavily on the previously established context of career goals and planning.

If earlier questions are removed, the interpretability of later questions becomes noticeably weaker.

This contrasts sharply with the center-dependent structures discussed in Chapter 2.

In other words, constrained-path questions are neither fully open nor fully closed.

Their distinctive feature is that while answers remain unknown, the broader problem space has already become sufficiently constrained for inquiry to re-enter structured exploration—and sometimes even local linear progression.

These examples further suggest that questioning should not be reduced to a simple binary distinction between linear and non-linear structures.

Different problem conditions may produce different degrees of structural convergence.

#### **4.3 Transitional Cases: Between Open Fields and Constrained Paths**

Although this paper distinguishes between **open-field questions** and **constrained-path questions**, real discourse data does not always present such clean divisions.

Some cases display characteristics of both structures and are better understood as transitional forms.

The distinctive feature of these cases is that speakers may identify relatively clear directions of action while the broader problem space remains insufficiently stable.

As a result, questioning may simultaneously display local path exploration and repeated returns to higher-level uncertainty.

For example:

*Sigh, I just don't get it.*

*I've always dreamed of doing this—just leaving.*

*How does someone actually do that?*

*Money-wise?*

*I'm in so much debt that I could never leave.*

At the beginning of this sequence, the speaker has already identified a relatively clear direction:

leaving their current life situation.

This distinguishes the sequence from more prototypical open-field questions, where the problem center may remain far less recognizable.

The later questions:

*How does someone actually do that?*  
*Money-wise?*

move toward more concrete implementation concerns, including:

- how leaving could realistically happen
- financial feasibility
- practical execution constraints

At this stage, the sequence begins to display features of constrained-path questioning.

The speaker temporarily shifts toward evaluating practical pathways rather than repeatedly circling an unstable center.

However, the later statement:

*I'm in so much debt that I could never leave.*

reintroduces a higher-order structural constraint.

What initially appeared to be increasing convergence is interrupted by larger practical limitations.

In other words, the sequence temporarily moves toward structured exploration, only to be pulled back into instability by broader constraints.

These cases are best understood as transitional structures in which temporary convergence remains vulnerable to larger destabilizing constraints.

### **partial convergence**

-> **local exploration**

-> **re-entry of higher-order constraints**

This paper treats such cases as transitional structures.

Their importance lies in showing that question structures are not fully discrete categories, but may shift dynamically across different levels of stability.

This observation further supports the broader argument of this paper:

the local structure of questioning often changes as problem spaces become more or less stable under changing internal and external constraints.

## **Chapter 5. Structurally Closed Questions**

### **5.1 Preloaded-Answer Questions: Directional Closure Before Exploration**

The **constrained-path questions** discussed in the previous chapter involve relatively limited pathways, but they still retain one important feature:

the speaker remains meaningfully uncertain about the final answer.

As a result, the inquiry process remains at least partially open.

However, not all utterances that take interrogative form retain this type of openness.

Some questions preserve the formal appearance of inquiry while the directional outcome has already been heavily constrained in advance.

For example:

*Why should someone in my situation keep taking this abuse?*

At the surface level, this appears to be a conventional *why-question*.

However, the direction of inquiry has already been heavily shaped before exploration begins.

The apparent question concerns whether the speaker should continue tolerating their current situation.

Yet the word “*abuse*” already introduces a strong evaluative framework that significantly narrows the problem space in advance.

The interrogative form remains present, but the inquiry itself has already become directionally constrained.

Certain linguistic choices pre-structure the problem space by assigning stronger legitimacy to one conclusion while implicitly weakening alternative possibilities.

As a result, the primary function of these questions is often not to open genuine inquiry.

Instead, they may function more as mechanisms for reinforcement, confirmation, or external validation of an already emerging position.

Compared with **open-field questions**, these sequences rarely display repeated attempts to approach unstable centers.

Compared with **constrained-path questions**, the difference is that genuine uncertainty about direction has already been significantly reduced.

This paper refers to these structures as **preloaded-answer questions**.

The term highlights an important distinction:

the presence of interrogative form does not necessarily imply genuine openness of inquiry.

This paper does not treat all rhetorical questions as structurally closed questions.

Rather, it focuses more narrowly on cases in which inquiry structure remains superficially present while the underlying problem space has already become heavily preloaded.

## 5.2 Declarative-Core Questions: Position Advancement Through Interrogative Form

Compared with the **preloaded-answer questions** discussed in the previous section, some question structures display an even stronger form of closure.

These utterances may preserve the surface appearance of consecutive questioning, but their primary function is no longer genuine inquiry.

Instead, they use interrogative form to advance an already existing position.

For example:

*Do you want him as a grandpa for your kid? Most likely not.*

*Do you want him to be a role model for your kid? No.*

*Do you want him and his family to be part of your kid's life? No way.*

*So why does he even need to know?*

At the surface level, this sequence contains multiple consecutive questions.

However, these questions do not meaningfully open new inquiry spaces.

Instead, each question is almost immediately answered by the speaker:

- *Most likely not*
- *No*
- *No way*

This rapidly closes whatever uncertainty might have existed.

Later questions do not function to explore new possibilities.

Instead, they progressively accumulate justification for the same underlying position.

The broader progression is closer to:

**existing position**

-> **interrogative restatement**

-> **self-confirmation**

-> **final conclusion**

The final question:

*So why does he even need to know?*

still appears formally interrogative.

Structurally, however, it functions much more like a concluding statement.

At this point, questioning no longer performs exploratory work.

It functions as a rhetorical mechanism for strengthening an already established judgment.

This paper refers to these structures as **declarative-core questions**.

The term emphasizes that although interrogative form remains visible on the surface, the deeper structural logic increasingly resembles declarative progression.

Unlike preloaded-answer questions, which may still preserve limited uncertainty, declarative-core questions move much more directly toward conclusions that are already largely formed.

These cases further demonstrate that interrogative form and genuine inquiry structure do not necessarily align.

A question may appear open grammatically while remaining structurally closed.

### 5.3 Rhetorical Closure: Using Interrogative Form to Produce Final Closure

Beyond **preloaded-answer questions** and **declarative-core questions**, this paper identifies another structure that displays an even stronger form of closure.

In these cases, the primary function of questioning is neither genuine exploration nor the gradual advancement of an existing position.

Instead, interrogative form is used to directly produce normative closure.

Unlike the declarative-core questions discussed in the previous section—which primarily reinforce the speaker’s own position—these structures more directly compress the response space available to others.

For example:

*Doesn’t your baby deserve peace and calm?*

*Babies—born and unborn—can feel their mother’s stress, pain, anger, and hurt, both before and after birth.*

*Doesn’t your baby deserve the best environment and the best version of you?*

At the surface level, this sequence contains two questions.

However, these questions do not meaningfully open answer space.

The first question:

*Doesn’t your baby deserve peace and calm?*

already heavily constrains acceptable responses.

Rejecting this proposition would require resisting strong normative expectations, which significantly narrows the practical response space.

The intervening declarative statement then provides additional emotional and normative justification through references to:

- stress
- pain
- anger
- hurt

The final question:

*Doesn't your baby deserve the best environment...?*

completes the closure process by directing discourse toward a highly constrained conclusion.

Its broader structure is closer to:

**normative premise**

-> **emotional justification**

-> **rheterical closure**

The defining feature of these questions is that they preserve interrogative form while dramatically restricting possible responses.

Although they appear structurally open on the surface, they strongly direct discourse toward highly convergent conclusions.

This paper refers to these structures as **rheterical closure** in order to distinguish them from genuinely open forms of inquiry.

These cases further reinforce one of the central claims of this paper:

**interrogative form alone is insufficient for determining structural function.**

Questions may differ dramatically in openness, dependency structure, and response space.

## Chapter 6. Questions as Local Topology Events

### 6.1 Declarative Baseline: Relatively Stable Discourse Progression

The previous chapters primarily focused on structural differences within question sequences themselves.

However, in real discourse progression, questions do not always appear in isolation.

Many discourse segments remain primarily driven by declarative statements, with questions appearing only as local interruptions within broader flows.

Before examining how questions alter local discourse structures, this paper therefore re-establishes a baseline condition:

how discourse typically progresses when questions are not actively intervening.

In more typical cases, discourse continues through relatively stable declarative chaining.

This structure can be simplified as:

**D -> D -> D**

In this model, later utterances primarily build on narrative, emotional, or causal conditions established by earlier ones.

The broader direction of discourse remains relatively stable.



For example:

*You said you loved me, but I knew you were lying.  
You think I'm weak and foolish, and you're probably right.  
I wish I had told you I loved you back.  
You would've been nice to me for a day or two.  
After that, everything would've gone back to normal.  
I'd still be waiting around for your attention.  
Now I can't even get that.  
We're broken up, and you've already moved on.*

The declarative sequence primarily moves through:

**past experience**

-> **self-evaluation**

-> **counterfactual reflection**

-> **relationship pattern description**

-> **present outcome**

Even when emotional intensity is present, the broader discourse progression remains relatively continuous.

Establishing this baseline matters because high-curvature questioning is not the default state of discourse. In many ordinary cases, discourse remains relatively stable until questioning temporarily alters its local trajectory.

The following sections examine how such local disruptions emerge.

## **6.2 Local Question Vortices: Temporary Disruptions in Discourse Flow**

In contrast to the relatively stable declarative baseline discussed in the previous section, this structure can be simplified as:

**D -> Q -> D**

In this pattern, questioning does not fully take over the progression of the entire discourse, nor does it expand into prolonged high-curvature questioning sequences.

Instead, it functions more as a local event embedded within an existing declarative flow.

The question temporarily increases local instability, creates a short-lived disruption in discourse movement, and is then followed by a return to declarative progression.

For example:

*It feels like I'm just a habit—or a badge of honor you keep around to protect your own pride.  
I've always been the one who thinks and feels the most in our relationship.  
Did you really love me this little?  
I don't want to regret the love I poured into you.  
Please show me that it meant something.*

In this example, the earlier statements maintain relatively stable declarative progression:

**relationship evaluation**

-> **self-positioning**

The question:

*Did you really love me this little?*

temporarily interrupts this progression and pulls discourse toward a more unstable region of emotional uncertainty.

However, the question does not expand into a full high-curvature sequence.

Instead, discourse quickly returns to declarative form:

*I don't want to regret...*

*Please show me...*

Structurally, this type of questioning functions as a **local vortex-like disruption**.

Its role is not to fully reorganize discourse progression, but to temporarily create a local increase in instability before discourse returns to its prior trajectory.

Here, vortex refers to brief moments in which discourse direction becomes temporarily distorted and locally destabilized.

These cases further demonstrate that the structural effects of questioning do not necessarily reshape entire discourse sequences.

In many cases, questioning produces short but highly visible local structural shifts.

### 6.3 Collapse: Local Breakdown After Questioning

Beyond the local question vortices discussed in the previous section, some cases display a more severe structural shift.

These structures can be simplified as:

**D -> Q -> collapse**

In this pattern, the earlier discourse still maintains relatively stable declarative progression.

However, the introduction of a question does not generate sustainable inquiry, nor does discourse successfully return to a stable trajectory.

Instead, the discourse enters a state of local contraction, stagnation, or breakdown.

For example:

*I don't understand.*

*I want the love and fulfillment that others have.*

*Was I such a bad person in another life that I'm paying for it in this one?*

*I don't know.*

*My head hurts.*

*I just wanted to enjoy life like everyone around me.*

In this example, the earlier statements establish relatively stable declarative conditions:

confusion about the present situation and longing for a desired life state.

The question:

*Was I such a bad person in another life...?*

suddenly pulls discourse toward a highly unstable explanatory framework that becomes difficult to verify or productively pursue.

Rather than opening sustainable inquiry, the question accelerates instability.

The later statements:

*I don't know.*

*My head hurts.*

display clear structural contraction.

Discourse no longer maintains its earlier narrative progression, but it also fails to establish a new stable direction.

Instead, it enters a form of **local discourse collapse**.

The term *collapse* here does not refer simply to emotional intensity.

It refers more specifically to situations in which discourse temporarily loses its ability to maintain coherent forward movement.

The question does not generate a new pathway.

Instead, it accelerates the breakdown of the previous one.

These examples further demonstrate that the local structural effects of questioning are not uniform.

Some questions create temporary disruption, while others may push discourse into more direct forms of local instability.

Unlike the vortex structures discussed earlier, these questions do not produce re-stabilization.

They temporarily weaken discourse's ability to continue moving forward.

#### **6.4 Recovery and Redirection: Structural Reorganization After Questioning**

Beyond local vortices and local collapse, this paper identifies another structural outcome.

This pattern can be simplified as:

**D -> Q -> D'**

In this structure, **D'** is not necessarily identical to the original **D**.

The intervention of questioning may alter the later direction of discourse, the speaker's position, or the broader interactional frame, allowing discourse to stabilize in a new form.

For example:

*We've been NC for about two years now, but once I started doing cool things in my 30s, all of a sudden she became interested.*

*One time she heard through the grapevine that I got a concussion and called me in a tizzy, asking, "Why didn't you tell me!?"*

*I didn't have the energy to sugarcoat it, so I said:*

*"Why would I tell you? What were you going to do about it?"*

In this example, the earlier discourse first establishes a relatively stable narrative baseline:

- long-term no contact
- sudden re-entry from the other person
- a specific triggering event

The questions:

*Why would I tell you?*

*What were you going to do about it?*

temporarily interrupt the original narrative flow.

However, their function is not to open genuine inquiry.

Instead, they create a structural redirection.

Through interrogative form, the speaker redefines relational positioning and redistributes responsibility.

After these questions, discourse does not return to its earlier vulnerable narrative position.

Instead, it moves toward a new state characterized by:

- rejection of obligation
- boundary reconstruction
- relational repositioning

This is why **D'** differs from the original **D**.

The questions do not produce collapse.

They generate a new direction of stability.

These cases demonstrate that questioning does not merely produce disruption or instability.

In some contexts, questions function as turning points that redirect discourse into new structural trajectories.

This further supports one of the central claims of this paper:

the structural effects of questioning are highly context-dependent and may produce very different local outcomes.

## **Chapter 7. Methodological Note and Dataset**

### **7.1 Dataset Construction**

The materials used in this paper primarily consist of publicly available Reddit discussions, which serve as preliminary materials for structural observation.

Reddit was selected primarily because several features of its discourse structure make it particularly useful for observing consecutive questioning patterns.

First, Reddit discussions often contain relatively naturalistic everyday language.

Compared with highly edited formal texts, these discussions more frequently preserve real-time processes of uncertainty, emotional expression, decision-making, and self-reflection.

Users often express questions, confusion, conflict, or personal dilemmas with relatively low levels of editorial filtering, making it easier to observe how questioning unfolds in more natural settings.

Second, Reddit contains highly diverse topical domains, including:

- interpersonal relationships
- career decisions
- identity concerns
- family conflict
- religious experiences
- everyday life problems

This heterogeneity helps reduce the risk of overfitting the analysis to a single thematic domain and allows the structural distinctions proposed in this paper to be observed across different contexts.

Third, Reddit data frequently contains spontaneous multi-question sequences.

Users often ask multiple consecutive questions without substantial revision, making it easier to observe structural variation in questioning behavior.

The dataset was manually collected during the research process through keyword searches, topic browsing, and manual filtering.

This paper did not rely on large-scale automated scraping.

During selection, the analysis prioritized examples that contained:

- clear question sequences or question-embedded structures
- observable local dependency relationships
- sufficient local discourse context
- strong relevance to structural comparison

Highly fragmented examples, cases with insufficient contextual information, or examples with low structural clarity were excluded from primary analysis.

The final dataset consists of approximately ninety examples used for structured observation.

Only representative cases are discussed in detail within the main analysis.

The remaining materials function primarily as background validation data used to examine whether the proposed structural distinctions recur across broader contexts.

The goal of this dataset is not statistical representativeness.

Rather, it is designed to test whether the structural distinctions proposed in this paper remain repeatedly observable across diverse naturalistic examples.

Reddit was selected primarily because it provides relatively accessible long-form natural discourse.

However, it remains primarily written discourse and differs from real-time spoken interaction.

Future work may extend this analysis to interview corpora, conversational datasets, or spoken corpora in order to test whether these observations remain stable in higher-interaction environments.

## **7.2 Dataset Composition**

To observe structural differences across different discourse conditions, this paper did not collect only one type of questioning material.

Instead, the final dataset was provisionally divided according to dominant structural characteristics.

The final dataset of approximately ninety examples can be broadly grouped into three categories.

### **(1) Question-Only Corpus**

These examples are primarily composed of consecutive questions.

Questioning functions as the dominant mode of discourse progression.

These materials were primarily used to examine:

- differences between linear dependency and center dependency

- high-curvature inquiry in open-field questions
- limited pathway exploration in constrained-path questions
- directional closure in structurally closed questions

Most analyses in Chapters 2 through 5 are primarily based on this category.

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## **(2) Declarative-Only Corpus**

These examples are primarily composed of declarative statements and tend to display relatively stable linear progression.

These materials are not the primary focus of the paper.

Instead, they function as comparative baselines for understanding how discourse typically progresses before questioning intervenes.

The declarative baseline discussed in Chapter 6 primarily draws from this category.

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## **(3) Mixed Corpus**

These examples contain both declarative statements and questions within the same discourse segment.

They were primarily used to examine how questions become embedded within broader discourse progression and produce different degrees of local structural change.

The major patterns observed in this category include:

- local vortices
- collapse
- recovery and redirection

These materials form the primary basis for the analyses presented in Chapter 6.

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These categories are intended as analytical distinctions rather than rigid classifications.

Some examples may display characteristics of multiple categories and could potentially be classified differently under alternative analytical frameworks.

The purpose of this categorization is to improve structural comparability and to avoid treating all question data as a single homogeneous category.

This distinction allows the paper to more clearly observe how questioning produces different structural effects under different discourse conditions.

### 7.3 Analytical Procedure

After initial data collection and provisional categorization, this paper relied on **manual structural analysis** for subsequent observation.

Because the goal of this research is not to build large-scale statistical models, but rather to identify local structural differences across question sequences, the analytical procedure primarily focuses on dependency relationships and patterns of discourse movement.

The overall analytical process broadly involved the following steps.

First, the analysis identified question sequences.

This step examined whether discourse segments contained consecutive questions or whether questions were embedded within broader declarative structures.

These sequences served as the primary units of analysis.

Second, the analysis examined dependency relationships between utterances.

This step focused on whether later questions primarily depended on earlier ones or whether they displayed shared orientation toward underlying centers.

Third, the analysis compared **linear dependency** and **center dependency**.

Observed question sequences were repeatedly compared with the sequential baseline established in Chapter 2 in order to determine whether they departed from more typical linear progression.

Fourth, the analysis identified local structural behaviors.

In question-only data, this step focused on distinctions such as:

- high-curvature inquiry
- constrained-path exploration
- directional closure

In mixed data, the analysis additionally examined how questioning produced:

- local vortices
- collapse
- recovery and redirection

Fifth, the analysis used the **removal test** as a supplementary diagnostic tool.

Intermediate questions were temporarily removed from sequences in order to observe whether later questions remained relatively interpretable.



This helped distinguish linear dependency from center dependency.

To reduce traceability to original posts, some examples were minimally modified when necessary.

These changes were limited to removing unnecessary identifying details while preserving the original structural relationships of the discourse.

These steps were not intended as a rigid linear procedure.

In practice, the analysis frequently involved repeated comparison, revision, and re-evaluation of structural distinctions.

This paper does not present this procedure as a fully formalized methodological framework.

Instead, it should be understood as a preliminary observational process designed to improve analytical consistency and structural comparability.

The purpose of the dataset is not large-scale statistical inference.

Rather, it functions as conceptual observational support for testing whether the structural distinctions proposed in this paper remain repeatedly observable across diverse discourse contexts.

## 7.4 Research Limitations

This paper has several clear limitations that should be explicitly acknowledged.

First, the structural distinctions proposed in this paper have not yet been validated through behavioral or experimental research.

The distinctions between **linear dependency**, **center dependency**, and **high-curvature inquiry** are currently based primarily on structural observation rather than experimentally tested processing differences.

Second, this paper does not make large-scale corpus claims.

The current dataset remains relatively limited in both size and source diversity, and this paper does not attempt to estimate the broader distribution of these structures in natural language use.

Third, some observed phenomena remain at an early exploratory stage.

For example, the research process occasionally identified possible forms of **recursive return**, in which later questions appeared to reactivate earlier inquiry regions.

However, the current evidence remains insufficient to support stronger structural claims, and these patterns were therefore excluded from the core analytical framework.

In addition, this paper primarily examines English-language Reddit data.

Cross-linguistic differences, cultural variation, and platform-specific discourse environments remain important areas for future research.

These limitations do not invalidate the paper’s central observations.

Rather, they clarify that this study currently offers a preliminary structural framework that requires further testing through larger datasets, cross-linguistic comparison, and future behavioral research.

## Chapter 8. Conclusion

This paper examined a relatively under-described phenomenon in questioning:

some consecutive question sequences do not follow typical patterns of linear progression.

In existing research, questions are often understood as information-seeking behaviors, interactional speech acts, or components of predictable adjacency structures.

These frameworks remain highly effective for explaining many everyday language phenomena.

However, this paper argues that some question sequences do not primarily depend on sequential continuation.

Instead, they display a different form of local structural organization.

To describe this phenomenon, the paper first distinguished between **linear dependency** and **center dependency**, and introduced the **removal test** as a preliminary diagnostic tool.

It further argued that some **open-field questions** display high-curvature inquiry because their problem centers remain difficult to directly access, leading speakers to repeatedly approach partially unstable centers through different pathways.

The paper also distinguished **constrained-path questions** and **structurally closed questions**, demonstrating that unknown answers do not automatically generate high-curvature inquiry, and that interrogative form does not necessarily imply genuine openness.

In mixed discourse data, the paper further showed that questions do not always dominate entire discourse sequences.

Instead, they often function as local events embedded within broader discourse flows.

Questions may produce temporary vortices, local collapse, or later structural redirection.

Taken together, the central argument of this paper is that questions do not produce uniform structural effects.

Different questions may generate fundamentally different local consequences depending on how problem spaces are organized.

These differences are not limited to semantic content.

They also emerge through dependency structures and patterns of discourse movement.

This paper therefore proposes a relatively narrow but concrete claim:

not all questions open informational gaps in the same way.

They may be responding to problem spaces that have not yet become structurally stable.

When problem centers remain difficult to access, questioning may become high-curvature.

When pathways become clearer, questioning may return to constrained exploration.

When directional outcomes are heavily preloaded, interrogative form may function primarily as a mechanism of closure.

More fundamentally, this paper argues that question research has often focused on questions as **answer-seeking units**, while paying less attention to how problem spaces themselves are formed and reorganized during discourse.

In many cases, questions are not simply about obtaining answers—they are attempts to navigate unstable problem spaces.

This paper offers a preliminary structural framework for describing that process.