

Stress-sensitive cognitive disorganization in help-seeking youth: a transdiagnostic developmental formulation perspective

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Perspective

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Abstract

Help-seeking youth may present with cognitive disorganization, unusual experiences, withdrawal, or threat-related meanings that cross familiar diagnostic boundaries. This Perspective proposes describing domain-specific within-person changes in organization separately from developmental baseline, actual or potential environmental threat, and established psychosis-risk assessment. It introduces “sorting capacity” only as a deliberately non-technical, descriptive clinical shorthand for a family of related but separable changes in attention and working-memory deployment, sequencing and task organization, access to language, discourse organization, and contextualization. The shorthand is not a latent construct, unitary mechanism, diagnosis, scale, causal pathway, biomarker, or treatment target. Four complementary formulation questions are proposed as a clinical heuristic: reconstruct developmental baseline; examine a provisional within-person state hypothesis; assess environmental safety, events, and meanings; and determine whether established clinical-risk indicators require formal assessment or referral. These questions can coexist and are neither equivalent nor scoreable. Reports of bullying, abuse, discrimination, family violence, coercion, online harassment, institutional harm, or other danger require proportionate safety and safeguarding assessment before interpretive formulations are advanced. Evidence directly relevant to stress is confined to specified executive-function outcomes under studied conditions; it does not establish effects on speech disorganization, threat interpretation, or reality testing. The manuscript’s novelty is therefore limited to a safety-gated organization of established assessment domains and a documentation shorthand whose proposed clinical value requires prospective testing.

Introduction: start with the sign, not the label

A young person who usually manages schoolwork adequately reports that, under social and academic load, their thoughts “run apart.” They open a homework document, check messages, lose the task sequence, and later struggle to explain how the evening became chaotic. Another adolescent becomes blank and verbally sparse when asked about a conflict at school. A third reports repeated hostile messages, exclusion, and pressure from peers. Those reports might describe verified harm, an ambiguous event, a mistaken interpretation, or a mixture of these possibilities; the first clinical obligation is to assess safety and the events themselves, not to decide prematurely that the account is internally generated. These are constructed illustrations rather than clinical cases. They show why an observable sign can be clinically important before its diagnostic meaning is stable.

The same surface presentation may be described as anxiety-related cognitive interference, executive dysfunction, attention-deficit/hyperactivity disorder-related disorganization, autism-related overload, “brain fog,” dissociation, developmental language difficulty, formal thought disorder, suspiciousness, or emerging psychosis risk. Each label refers to a different assessment domain, and several may apply at once. Developmental and bioecological perspectives direct attention to adaptation across the person, relationships, institutions, culture, and time rather than locating every change inside the individual [1–2]. This is especially important in youth, when developmental baselines are still changing and accounts from the young person, caregivers, school, and clinicians may diverge.

This Perspective proposes describing cognitive disorganization and unusual experiences in help-seeking youth by separating domain-specific within-person changes in organization from developmental baseline, actual or potential environmental danger and meaning, and established psychosis-risk assessment within a nonvalidated, non-scoreable formulation heuristic. The manuscript's only claimed novelty is the explicit, safety-gated juxtaposition of established assessment domains within one clinician-facing heuristic and the proposed non-technical shorthand "sorting capacity" for documenting function-specific within-person change. It introduces no new latent construct, unitary mechanism, trait, diagnosis, scale, causal pathway, biomarker, risk algorithm, or evidence-based intervention.

Psychosis-related language without premature labeling

Psychosis-related concepts are relevant but require careful separation. A contemporary child and adolescent review distinguishes psychotic disorders, psychotic experiences, and psychosis-risk states and emphasizes their different meanings and developmental contexts [3]. A systematic review and meta-analysis found that psychotic experiences are common among children and adolescents presenting to mental health services, although estimates vary with assessment method, setting, and sample [4]. Epidemiological evidence indicates that psychotic experiences can be transient and occur across diagnostic categories [5], while transdiagnostic accounts place them on an extended phenotype rather than equating them with an inevitable psychotic disorder [6]. These findings support asking about unusual experiences; they do not classify an individual or determine prognosis.

Clinical-high-risk for psychosis (CHR-P) assessment has a different status. Established CHR-P approaches use specified symptom, functional, and risk criteria and require trained assessment rather than impressionistic substitution [7]. Basic-symptom research likewise concerns defined subjective cognitive and perceptual experiences and should not be collapsed into a generic observation of disorganization [8]. Meta-analytic estimates of transition in children and adolescents who meet CHR-P criteria describe one possible group outcome, not the fate of every young person [9]. Conceptual clarity is particularly important in child and adolescent applications [10]. A meta-analysis of CHR-P participants who did not transition, with a mean sample age of 20.4 years and therefore not youth-specific, found persistent symptoms or functional needs [11]. Transdiagnostic youth mental-health approaches therefore broaden clinical attention without making formal psychosis-risk classification redundant [12].

In this Perspective, psychotic experiences, formal thought disorder, and CHR-P classification remain distinct. A transdiagnostic formulation may slow premature closure, but it must not delay validated assessment, medical review, safeguarding, or specialist referral when indicated.

Scope, evidence status, and novelty

This is a Perspective and conceptual synthesis, not a systematic review, diagnostic study, or validation study. Four evidence categories govern the argument. Directly supported claims stay within the population, exposure, comparator, and outcome actually studied. Adjacent-extrapolated claims draw on a

relevant literature but cross at least one important boundary, such as moving from adult or early-psychosis findings to adolescents, or from executive-task performance to conversational organization. A clinical hypothesis is plausible but untested and is stated with a potential falsification condition. Proposed utility refers to what the shorthand or heuristic might help clinicians document or researchers test; it is not an established benefit.

Table 1 makes these boundaries explicit. Evidence that anxiety or acute stress can impair specified executive functions is not direct evidence that stress causes disorganized speech, inaccurate threat meanings, impaired reality testing, or a psychosis-risk state. Conversely, the absence of such direct evidence does not show that state effects are clinically irrelevant. It identifies the next measurement problem.

Table 1
Claim-evidence status and inferential limits

Central proposition	Evidence status	Evidence base and outcome actually studied	Permissible inference	Not established; required test or falsification condition
Psychotic experiences are encountered in youth mental-health services and are not synonymous with a psychotic disorder.	Directly supported	Child/adolescent review, service-sample meta-analysis, epidemiological meta-analysis, and transdiagnostic review; outcomes include reported psychotic experiences, prevalence, persistence, and diagnostic distribution [3–6].	Unusual experiences warrant careful assessment without automatic diagnostic assignment.	No individual diagnosis, prognosis, or causal explanation follows from prevalence. Test with validated individual-level longitudinal assessment.
CHR-P transition is one outcome among several and requires established assessment.	Directly supported	CHR-P reviews, basic-symptom literature, youth transition meta-analysis, child/adolescent conceptual guidance, a non-transition outcome meta-analysis with a mean sample age of 20.4 years (not youth-specific), and a transdiagnostic early-intervention perspective [7–12].	Use validated CHR-P assessment and attend to symptoms and functioning whether or not transition occurs.	The proposed heuristic does not classify CHR-P or predict transition. Falsified as an adequate substitute if it misses established criteria or delays referral.
Acute stress can affect specified executive functions under studied conditions.	Directly supported for the measured executive outcomes	Acute-stress meta-analysis and neurobiological review; outcomes include working memory, inhibition, cognitive flexibility, and prefrontal task performance, predominantly outside youth	Stress-related variation in named executive functions is plausible and measurable.	Speech organization, threat interpretation, reality testing, and a unitary “sorting” mechanism were not established. Test each outcome separately with repeated, developmentally

Central proposition	Evidence status	Evidence base and outcome actually studied	Permissible inference	Not established; required test or falsification condition
		clinical samples [13, 14].		appropriate measures.
Daily stress can covary with response-inhibition performance in adolescents.	Directly supported for a narrow adolescent outcome	A small adolescent study related daily stress to response inhibition and neural activation [15].	Within-person adolescent stress-cognition studies are feasible.	General executive decline, language or discourse change, threat meaning, and reality testing were not studied. Replicate across larger samples, domains, contexts, and repeated observations.
Affective activation may be associated with formal thought disorder in early psychosis.	Adjacent-extrapolated	Early-psychosis systematic review and experimental affect-induction study; outcomes concern formal thought disorder and its associations [16, 17].	Affect-linked variation in formal thought disorder is a relevant adjacent finding.	The evidence is not youth-specific and does not validate pacing response or the proposed shorthand. Test with blinded, repeated discourse ratings in youth.
Reported threat may correspond to genuine adversity or danger.	Directly supported that relevant youth harms occur; individual application requires assessment	Child-maltreatment guidance and youth bullying, discrimination, and cyberbullying reviews [18–21].	Bullying, abuse, discrimination, family violence, coercion, online harassment, institutional harm, and other danger must remain live possibilities and prompt proportionate safety assessment.	No citation determines whether an individual report is accurate. Evaluate events, chronology, safe corroboration, immediate risk, and safeguarding duties without treating non-corroboration as proof of internal origin.
Mentalizing is a distinct domain that can be context-sensitive.	Adjacent-extrapolated	Clinical review of mentalizing across psychopathology [22].	Self-other meaning may be assessed as a separate formulation layer.	The source does not establish a shared sorting mechanism or adjudicate event

Central proposition	Evidence status	Evidence base and outcome actually studied	Permissible inference	Not established; required test or falsification condition
				accuracy. Use domain-specific mentalizing measures and independent event/safety assessment.
"Sorting capacity" may help decompose a global description into named, observable domains.	Proposed utility	Author proposal informed by the bounded literatures above.	The term may serve as documentation shorthand when domain, baseline, context, and time course are stated.	Reliability, validity, incremental value, etiology, prognosis, and treatment sensitivity are unknown. Abandon or revise the term if it adds no information beyond domain-specific description or causes construct confusion.
Four complementary questions may help prevent premature closure.	Proposed utility	Author-organized clinical heuristic; not a validated model.	The questions may keep developmental baseline, provisional state variation, environmental safety/events/meaning, and established risk assessment visible at the same time.	No improvement in decisions or outcomes is established. Compare with usual formulation and measure missed danger, missed referral, agreement, burden, and clinical outcomes.
Improvement during pacing or down-regulation may provide descriptive within-session information.	Clinical hypothesis	No direct evidence was identified that pacing or down-regulation specifically normalizes organization in this presentation or identifies mechanism, truth, diagnosis, or risk.	Record what changed, in which domain, under what conditions, and for how long.	A response is not a truth test or diagnostic proof. The hypothesis fails if change is unreliable, nonspecific, unrelated to load, or misleading about safety or specialist need.

Figure 1 separates published findings from the inferential stop and the author's proposal. Its purpose is epistemic rather than clinical sequencing: it shows where evidence ends, where extrapolation begins, and why the genuine-danger branch remains separate.

“Sorting capacity”: definition and differential boundaries

In this Perspective, “sorting capacity” is a deliberately non-technical, descriptive clinical shorthand for a family of related but separable changes in attention and working-memory deployment, sequencing and task organization, access to language, discourse organization, and contextualization that may vary within a person across load, setting, and time. It is neither a latent trait nor a unitary mechanism, diagnosis, scale, causal process, pathway, or biomarker. The term is permissible only when the clinician names the affected domain or domains, anchors the observation to the young person's individual developmental and usual baseline, specifies the context and putative load, and records onset, duration, fluctuation, and recovery course. Threat accuracy and reality testing are excluded from the definition and require separate assessment. Its limited incremental inference is only that apparently similar surface disorganization may be decomposed into observable, domain-specific, within-person patterns that can guide what to assess next and how to document uncertainty; it does not identify etiology, diagnosis, prognosis, truth, or treatment response.

This usage imposes a term-governance rule. After the definition, the affected domain should be named whenever possible: for example, “topic maintenance decreased during a high-demand interview” is preferable to “sorting capacity was poor.” The shorthand must not become a causal noun, a global attribute of the young person, or a substitute for validated assessment.

Executive functions include separable processes such as working memory, inhibitory control, cognitive flexibility, planning, and monitoring [23]. Anxiety-related attentional interference [24], acute-stress effects on core executive functions [13], and stress-sensitive prefrontal function [14] support a bounded prediction that some named cognitive operations may vary under load. An adolescent study relating daily stress to response inhibition and neural activation provides youth-specific but narrow within-person evidence [15]. None of these sources directly measured the proposed family of changes as a whole, and none establishes effects on conversational coherence, threat accuracy, or reality testing. A qualitative analysis of Reddit submissions, not a youth-specific clinical study, illustrates the heterogeneity of the broad self-description “brain fog”; it should be unpacked rather than used as an explanation [25].

Formal thought disorder (FTD) concerns disturbances in thought form, discourse coherence, and language organization and requires its own phenomenological and, where appropriate, linguistic assessment [26]. Associations among FTD, neurocognition, and functioning have been reviewed mainly in early psychosis [16]. An affect-induction study found state-related changes in FTD in early-stage psychosis [17], but that finding is not youth-specific and does not show that reduced demand distinguishes FTD from other sources of disorganization. Word-finding difficulty, reduced speech, fatigue, dissociative blankness, and topic loss therefore cannot be relabeled as FTD without appropriate assessment.

Dissociation may involve discontinuities in consciousness, perception, memory, identity, affect, or bodily experience. A recent systematic review shows that dissociation instruments vary in scope and evidence quality [27]. If blankness, derealization, depersonalization, amnesia, or detachment is reported, those phenomena, their triggers, and their time course should be assessed directly.

“Autism-related overload” is used here only as a contextual description of distress under cumulative sensory, social, communicative, or cognitive demand in an autistic person. It is not a standardized diagnosis or generic synonym for stress sensitivity. Authoritative guidance recommends identifying environmental, communication, physical-health, and co-occurring mental-health factors that may precipitate or maintain distress or behavior that challenges [28]. Developmental autism history and demand mapping remain necessary; the shorthand cannot infer autism.

Developmental or acquired language disturbance also requires an independent boundary. The CATALISE consensus clarifies terminology for persistent developmental language problems and underscores the need to describe affected language domains and functional impact [29]. A single interview cannot establish that word access, pragmatic language, or discourse difficulty is state-dependent. Developmental, multilingual, educational, hearing, neurological, and speech-language history may be required.

Mentalization refers to understanding behavior in relation to mental states in oneself and others [30]. Contemporary reviews describe mentalizing as context- and arousal-sensitive and as relevant across forms of psychopathology [22]. This literature may inform a separate formulation layer concerning self-other meaning, but it does not establish a cognitive mechanism, determine whether a reported threat is true, or replace psychosis-risk or language assessment. Table 2 summarizes the seven differential boundaries and the distinct assessment each requires.

Table 2
Sorting capacity and boundaries with established constructs

Established construct or domain	Primary referent	Possible surface overlap	Boundary and required assessment	Limited role of the shorthand
Executive dysfunction	Working memory, inhibition, shifting, planning, monitoring, and related executive processes; these may be trait-like, acquired, or state-sensitive [13–15, 23–24].	Task-sequencing loss, distractibility, or difficulty holding a conversational goal.	Do not infer executive dysfunction from conversational “fog” or response to pacing. Use developmental and task history and, when indicated, validated cognitive assessment.	Prompts the clinician to name the function that varied within the person; neither replaces nor explains executive dysfunction.
Cognitive disorganization	The presenting sign or symptom domain; its operational meaning must be specified.	May include task, attentional, linguistic, or discourse-level disorganization.	Treat it as the observation to be described, not as a mechanism. Avoid circularly using the shorthand as both definition and cause.	Offers a grammar for decomposing the observation, not a second construct.
Formal thought disorder	Disturbance in thought form, discourse coherence, and/or language organization assessed with appropriate clinical or linguistic methods [16–17, 26].	Reduced topic maintenance or coherence may appear similar.	Do not infer FTD from word-finding difficulty, reduced speech, fatigue, fog, or improvement with pacing. Conduct an FTD-specific assessment when indicated.	Adds no diagnostic inference; prompts referral to the appropriate assessment domain.
Dissociation	Disruption or discontinuity in normally integrated consciousness, perception, memory, identity, affect, or bodily experience [27].	Blankness, memory gaps, derealization, depersonalization, or detachment may coexist with organizational difficulty.	Assess dissociative phenomenology, amnesia, triggers, and time course separately using developmentally appropriate methods.	Intended to guard against collapsing all blankness into one mechanism; does not explain dissociation.

Established construct or domain	Primary referent	Possible surface overlap	Boundary and required assessment	Limited role of the shorthand
Autism-related overload	A contextual, non-diagnostic description of distress under cumulative sensory, social, communicative, or cognitive demand in an autistic person [28].	Shutdown, withdrawal, reduced speech, task loss, or distress may look disorganized.	Establish developmental autism context and map sensory, social, communication, physical-health, and environmental demands.	Prompts domain and context description only; does not infer autism or a mechanism.
Developmental or acquired language disturbance	Persistent developmental language difficulty, with developmental terminology established by CATALISE [29]; separately, an acquired disturbance in structural, semantic, pragmatic, or discourse functions.	Word access, topic maintenance, and contextual framing may overlap.	Obtain developmental, multilingual, educational, hearing, neurological, and speech-language history; do not infer state dependence from one interview.	Encourages baseline comparison but does not replace language assessment.
Reduced mentalization	Difficulty representing behavior in terms of mental states in self and others; may vary with arousal and relationship context [22, 30].	Contextualization and self-other meaning may overlap with the presentation.	It is neither executive dysfunction nor language disorder and cannot determine whether a reported threat is accurate.	At most adds a separate formulation layer; provides no truth or psychosis-risk inference.

Adjacent literatures and candidate processes

Several literatures make the proposed distinctions clinically plausible without establishing a unitary mechanism. Reviews of childhood trauma and psychosis integrate multiple epidemiological, psychological, and biological pathways, but they do not show that trauma explains every unusual experience or that one stress process links executive performance, speech organization, threat meaning, and reality testing [31]. Research on amygdala circuits describes substrates involved in adaptation to stress and adversity [32]; translation from this work to a particular young person's account remains limited.

The environment is not merely a trigger for an internal process. It can contain the danger. A systematic review and meta-analysis documents substantial bullying involvement among children and adolescents with neurodevelopmental or psychiatric conditions [19]. Meta-analytic work also links racial or ethnic discrimination during adolescence with poorer well-being [20], and youth cyberbullying research demonstrates that harm may occur through digital as well as face-to-face contexts [21]. Child-maltreatment guidance requires a health-sector response that includes identification, immediate support, safety assessment, documentation, and referral consistent with local safeguarding duties [18]. These sources establish that relevant harms occur; they cannot adjudicate an individual report. Clinicians should therefore distinguish the event question (“What happened, is happening, or may happen?”) from the meaning question (“How is it understood?”), while recognizing that both may have mixed or uncertain answers.

Network theory offers one way to investigate reciprocal relations among stress, sleep, affect, cognition, behavior, and unusual experiences without assuming a single hidden cause [33]. Dimensional psychosis-superspectrum work likewise distinguishes psychoticism, detachment, cognition, and functional impairment [34], while critiques of narrow categorical accounts emphasize the breadth and heterogeneity of psychosis-related phenomena [35]. These are adjacent conceptual supports for keeping domains separate. They do not validate the present shorthand or heuristic.

Four complementary formulation questions: a clinical heuristic

These questions form a clinical heuristic rather than a validated model. They address different objects and require different evidence: Question 1 reconstructs developmental baseline; Question 2 examines a provisional within-person state hypothesis; Question 3 assesses environmental safety, events, and meanings; and Question 4 invokes established clinical-risk classification and referral. Their answers may coexist. They are not dimensions, stages, pathways, or scoreable components and are neither scored nor summed. Immediate medical, safeguarding, and acute-risk checks take precedence, and validated assessment remains necessary when indicated.

Question 1: What is the young person’s developmental and neurodevelopmental baseline?

Baseline reconstruction asks what is usual for this young person and how that pattern developed. Relevant sources may include the young person’s own account, caregiver and school observations, prior records, and language or learning assessments. The history should address onset and course; variation across settings; attention and executive-function patterns; social communication; sensory demands; structural and pragmatic language; learning; sleep; medical and neurological factors; medication and substance exposure; and prior periods of deterioration or recovery.

A longstanding difference does not exclude a new change, and a new change does not erase a longstanding developmental profile. Informants may observe different contexts and may also be

participants in conflict or harm. Their accounts should therefore be compared rather than ranked automatically. Acute danger, medical need, or rapid functional deterioration may require action before a complete developmental history is available.

Question 2: Which functions vary within the person as load, context, and time change?

This question examines a provisional state hypothesis rather than diagnosing a “capacity loss.” The clinician first names the domain: attention to task, working-memory deployment, sequence maintenance, language access, discourse coherence, contextualization, or another observable function. The record should specify the young person’s usual level, the context, the putative load, onset, duration, fluctuation, and recovery. Repeated observation across settings is more informative than one interview.

Lower-demand communication can include shorter questions, additional processing time, concrete language, reduced sensory load, written or visual support, planned pauses, or restoration of sleep and basic needs. Any associated change is descriptive information only. Improvement does not establish that arousal caused the presentation, prove that an account is accurate or inaccurate, exclude dissociation or formal thought disorder, or rule out CHR-P. Absence of improvement is equally nonspecific. Direct evidence that pacing or down-regulation has these discriminative properties was not identified.

Question 3: What is happening in the environment, and how is threat experienced and interpreted?

The event and safety assessment comes before explanatory interpretation when danger is possible. Clinicians should ask about bullying, abuse, discrimination, family violence, coercion, sexual or financial exploitation, online harassment, stalking, institutional harm, and other current or anticipated dangers. Assessment should cover chronology, frequency, access to the young person, power imbalance, available records or corroboration when it is safe to seek them, immediate protection needs, and applicable safeguarding procedures. A report should not be downgraded because it seems unusual, is expressed disjointedly, changes in detail, or lacks immediate corroboration. Absence of corroboration is not evidence that the report was internally generated.

Meaning can then be explored without using flexibility, conviction, or response to regulation as a truth test. A young person may accurately identify harm while also generalizing danger, misreading some cues, or struggling to communicate the event. Conversely, a calm and flexible account may still describe serious danger. Accurate threat, mistaken interpretation, trauma-linked expectation, psychosis-related meaning, and mixed explanations remain distinguishable possibilities. Where family violence or coercion may be present, involving family members or recommending family work must wait until safety, confidentiality, and the consequences of disclosure have been assessed.

Question 4: Do established clinical-risk indicators require formal assessment or referral?

This question uses established clinical-risk pathways rather than the proposed shorthand. Indications may include persistent or escalating attenuated psychotic symptoms, perceptual abnormalities, unusual thought content, suspiciousness, disorganized communication, marked functional change, brief psychotic symptoms, or relevant familial risk accompanied by deterioration. Assessment should also consider mood elevation, severe depression, catatonia, delirium, neurological or other medical causes, medication effects, sleep deprivation, intoxication or withdrawal, and acute risk.

Where psychosis-risk or psychotic symptoms are suspected, trained clinicians should use validated, developmentally appropriate assessment and follow local referral guidance. The heuristic cannot confirm or exclude CHR-P. A within-session response to pacing, the person's degree of conviction, or their willingness to consider alternatives cannot be used as diagnostic proof. Formulation may accompany specialist assessment, but it must not postpone it.

Figure 2 represents the four questions as parallel spokes rather than a pathway. Only Question 4 refers to established clinical-risk classification; Questions 1–3 are author-organized formulation prompts. The environmental-safety branch is activated whenever danger is possible or uncertain. Table 3 translates the four prompts into distinct evidence requirements, next actions, and safeguards.

Table 3
Four complementary formulation questions and safeguards

Formulation question	Epistemic status	Information required	Immediate or next action	Safeguard and prohibited inference
1. What is the young person's developmental and neurodevelopmental baseline?	Developmental-baseline reconstruction	Young person, caregiver, school, and record-based history where available; onset; cross-context pattern; language, learning, attention, sensory, sleep, medical, and neurodevelopmental profile.	Describe usual functioning and any new deviation; obtain domain-specific assessment when indicated.	Baseline difference does not prove absence of deterioration. Safety or medical action may precede full historical reconstruction.
2. Which functions vary within the person as load, context, and time change?	Provisional within-person state hypothesis	Named functional domains; individual baseline; repeated observations; putative load; onset, duration, fluctuation, and recovery.	Reduce unnecessary demand, support communication, and re-observe while continuing indicated assessment.	Response to pacing or down-regulation is information only—not a mechanism, diagnosis, truth test, or proof against CHR-P.
3. What is happening in the environment, and how is threat experienced and interpreted?	Environmental safety, event, and meaning assessment	Possible bullying, abuse, discrimination, family violence, coercion, online harassment, institutional harm, or other danger; chronology; safe corroboration; meaning; uncertainty.	Address immediate safety and safeguarding first; investigate events proportionately; explore meaning without presuming internal origin.	Conviction and flexibility are not truth tests. Lack of corroboration does not establish that the threat is internally generated. Family involvement is conditional on safety.
4. Do established clinical-risk indicators require formal assessment or referral?	Established clinical-risk classification and referral	Validated CHR-P or psychosis-risk assessment when indicated; symptom persistence; functional change; medical, neurological, mood, medication, sleep, and substance review.	Arrange specialist, emergency, medical, or other validated assessment and referral as required.	The heuristic neither classifies CHR-P nor justifies delaying specialist, medical, safeguarding, or emergency care.

Clinical translation: safety-gated assessment, communication, and documentation

The clinical sequence begins with needs that cannot wait. Immediate danger, abuse or coercion, acute self-harm or violence risk, severe intoxication or withdrawal, delirium, catatonia, neurological change, or another medical emergency requires urgent action. Safety planning and safeguarding may proceed before or alongside formulation. Once urgent needs are addressed, the four questions may be used to organize further information without requiring one explanation to win.

Communication should reduce avoidable demand while preserving assessment quality. A clinician might say: "Several different things can make it hard to keep thoughts, words, and steps organized. I want to understand exactly what changes for you, what stays the same, what is happening around you, and whether anything requires extra safety or specialist help." This wording validates difficulty without naming a hidden mechanism. Concrete questions, one topic at a time, processing time, written summaries, and opportunities to correct the clinician may improve access to information. Any improvement in organization remains descriptive rather than diagnostic.

Environmental action should be proportionate to the account and the applicable legal and service context. It may include private assessment, documentation of the young person's words, preservation of digital evidence with consent and attention to safety, consultation with a safeguarding lead, medical examination, school or institutional measures, or referral to statutory services. Attempts to obtain corroboration should not expose the young person to retaliation. If a caregiver or family member may be involved in violence, coercion, surveillance, or retaliation, clinicians should not disclose the account to that person or initiate family work until confidentiality, safety, and safeguarding obligations have been considered.

Support should then be matched to the domain and need. Examples include sleep and medication review, substance assessment, communication adjustments, educational accommodations, speech-language evaluation, trauma-focused or dissociation-informed assessment, neurodevelopmental assessment, and psychosis-risk referral. These options can coexist. The heuristic is not an intervention package, and no response to one component proves the formulation.

A constructed documentation example illustrates the intended level of precision:

During the assessment, topic maintenance and access to specific words decreased when several school and peer events were discussed in rapid succession. With one question at a time and a written timeline, the young person gave a more coherent chronology; this within-session change was recorded as descriptive information and not as evidence about cause, truth, diagnosis, or psychosis risk. The young person also reported repeated threatening messages from peers. Because current external danger had not been excluded, the clinician completed an immediate safety assessment, preserved relevant information with the young person's agreement, and sought safeguarding consultation. Developmental history suggested longstanding language and sensory differences, while the reported recent decline and

unusual experiences still warranted specialist assessment. Uncertainty, actions taken, and the plan for longitudinal review were documented separately.

Figure 3 shows the temporal workflow. It keeps urgent environmental, safeguarding, medical, and acute-risk action upstream of, or concurrent with, the heuristic; it also makes family involvement conditional on safety and returns all routes to documented uncertainty and longitudinal review.

Research agenda and falsification

Research should evaluate the components separately before evaluating the shorthand. The first task is measurement: define observable outcomes for attention, working-memory deployment, sequence maintenance, language access, discourse organization, and contextualization. Candidate designs include ecological momentary assessment of stress and context, repeated brief cognitive tasks, blinded ratings of repeated discourse samples, sleep and substance tracking, multi-informant developmental history, validated dissociation and psychosis-risk measures, and domain-appropriate language or neurodevelopmental assessment. A systematic review of developmental-trauma assessment illustrates the heterogeneity and limitations of available child and adolescent approaches; it supports careful method selection, not the full proposed battery [36].

Executive, linguistic, discourse, dissociative, and metacognitive or mentalizing domains should be measured separately with established instruments or transparent, reproducible coding schemes. Investigators should test whether these domains covary before proposing any higher-order construct. A higher-order account would require preregistered evidence of robust covariance beyond general distress and shared method variance; consistent non-covariance, unstable factor loadings, or superior domain-specific models would count against it and should lead to abandoning rather than relabeling the construct. Any shorthand should demonstrate incremental validity beyond established executive, language, discourse, dissociation, mentalizing, and CHR-P measures, developmental history, and usual clinical formulation before clinical adoption is considered.

Prespecified confounders and alternative explanations should include age and developmental stage, baseline cognition and language, neurodevelopmental status, mood, anxiety and mania, sleep, substance use or withdrawal, medication, pain, medical or neurological illness, current danger or trauma exposure, task complexity, language and cultural context, interviewer and rater effects, practice or learning, fatigue, expectancy, accommodation, regression to the mean, overall symptom severity, and concurrent treatment changes. Null, opposite-direction, domain-specific, or nonreplicating findings must count against the relevant hypothesis rather than being treated as evidence of a hidden capacity.

Four testable propositions follow.

1. Reliability and discriminant validity. Clinicians may be able to code the named domains and their within-person variation reliably. This proposition fails if raters cannot agree, if domains collapse

empirically into an uninterpretable global judgment, or if ratings merely reproduce existing diagnosis or clinician expectancy.

2. Within-person state association. Changes in specified loads may covary with changes in specified functions after controlling for sleep, medication, substance use, mood, medical factors, and measurement practice effects. This proposition fails when preregistered within-person associations do not replicate, are fully explained by competing variables, or do not generalize across contexts. Executive-task findings must not be treated as confirmation of discourse, threat-meaning, or reality-testing effects.
3. Pacing and down-regulation. Lower-demand communication may alter the quality or quantity of information obtained from some young people. This proposition fails if effects are unreliable, nonspecific, attributable only to repetition, or associated with false reassurance. Even a replicated effect would not establish etiology, truth, diagnosis, or absence of psychosis risk.
4. Incremental clinical utility and safety. The four-question heuristic may improve documentation or reduce premature closure beyond usual formulation. A prospective comparison should measure inter-rater agreement, time burden, young-person experience, appropriate safeguarding action, false reassurance about genuine danger, missed or delayed specialist referral, unnecessary referral, and functional outcomes. The utility claim fails if the heuristic adds no information, increases burden without benefit, psychologizes valid reports of harm, or delays established assessment.

Event accuracy should never be operationalized by clinician agreement with the young person's interpretation. Research on the environmental-safety question requires independent, ethically obtained event indicators, explicit handling of uncertainty, and outcomes that detect both missed danger and unwarranted internal attribution. Likewise, longitudinal coexistence should be expected: a young person may have a neurodevelopmental difference, experience actual victimization, show state-sensitive variation, and meet CHR-P criteria. Analyses that force such cases into mutually exclusive groups would test a different model from the one proposed here.

Limitations and safeguards

The proposal has substantial limitations. "Sorting capacity" is neither validated nor operationalized as a unitary construct, and its component domains already belong to established literatures. The shorthand may prove redundant, too broad, or prone to reification. Much of the linking argument relies on adjacent evidence: adult or mixed-age samples, laboratory executive tasks, early-psychosis studies, theoretical mentalization work, and guidance documents address different populations and outcomes. Direct evidence connecting within-person stress to youth discourse organization, threat meanings, or reality testing is absent or insufficient.

The four questions are heterogeneous. Developmental-history reconstruction, a state hypothesis, environmental event and safety assessment, and CHR-P classification cannot be scored, summed, staged, or interpreted as dimensions of one model. Their apparent completeness may create false confidence unless clinicians continue medical, neurological, medication, sleep, substance, mood, dissociation, language, neurodevelopmental, safeguarding, and acute-risk assessment.

Genuine danger can coexist with cognitive or psychiatric difficulty. Disorganized communication, unusual beliefs, autism, trauma history, or psychosis risk can make valid reports easier to dismiss. The converse error is also possible: interpreting all reported danger as externally verified may miss serious psychopathology or expose others to unfounded allegations. The framework therefore requires event-sensitive, proportionate, and culturally informed assessment that documents uncertainty rather than using conviction, flexibility, or regulation response as a truth test.

Culture, spirituality, migration, racism, gender and sexual identity, digital practices, developmental language, and local idioms shape both experiences and their description. Safeguarding law, confidentiality, family authority, school duties, and referral resources vary by jurisdiction. Family involvement may be supportive in one context and unsafe in another. These differences limit the portability of any simple workflow and require local adaptation.

Finally, no evidence currently shows that using this terminology or heuristic improves clinical outcomes. Its value remains a proposed research and documentation utility. It should be revised or abandoned if it produces construct confusion, weak reliability, no incremental information, missed danger, delayed referral, or other harm.

Conclusion

In help-seeking youth, similar surface signs can reflect different or coexisting developmental, cognitive, linguistic, dissociative, environmental, and psychosis-related processes. This Perspective proposes only a nonvalidated way to keep those questions separate. “Sorting capacity” is a deliberately non-technical shorthand for documenting named within-person changes, not a mechanism or diagnosis. The four questions reconstruct baseline, test a provisional state hypothesis, assess environmental safety/events/meaning, and invoke established clinical-risk assessment when indicated; they are not equivalent or scoreable. Genuine danger must be assessed before interpretive formulations or potentially unsafe family involvement. The framework’s usefulness, reliability, discriminant validity, and safety remain to be tested prospectively. Until then, its proposed role is modest and requires evaluation: to structure domain-specific description, make uncertainty explicit, and guard against displacement of established safeguarding, medical, neurodevelopmental, language, dissociation, and psychosis-risk pathways.

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References

1. Bronfenbrenner U, Morris PA. The bioecological model of human development. In: Damon W, Lerner RM, editors. Handbook of child psychology. Theoretical models of human development. Volume 1, 6th ed. Hoboken (NJ): Wiley; 2006. pp. 793–828.
<https://doi.org/10.1002/9780470147658.chpsy0114>.
2. Cicchetti D, Rogosch FA. A developmental psychopathology perspective on adolescence. *J Consult Clin Psychol*. 2002;70(1):6–20. <https://doi.org/10.1037/0022-006X.70.1.6>.
3. Kelleher I. Annual Research Review: Psychosis in children and adolescents: key updates from the past 2 decades on psychotic disorders, psychotic experiences, and psychosis risk. *J Child Psychol Psychiatry*. 2025;66(4):460–76. <https://doi.org/10.1111/jcpp.14088>.
4. Bruce A, Dunwoody B, Healy C, Cannon M, O'Hare K, Kelleher I. Prevalence of psychotic experiences in children and adolescents presenting to mental health services: a systematic review and meta-analysis. *Schizophr Bull* 2025 Dec 9:sbaf214. Online ahead of print.
<https://doi.org/10.1093/schbul/sbaf214>
5. Linscott RJ, van Os J. An updated and conservative systematic review and meta-analysis of epidemiological evidence on psychotic experiences in children and adults: on the pathway from proneness to persistence to dimensional expression across mental disorders. *Psychol Med*. 2013;43(6):1133–49. <https://doi.org/10.1017/S0033291712001626>.
6. van Os J, Reininghaus U. Psychosis as a transdiagnostic and extended phenotype in the general population. *World Psychiatry*. 2016;15(2):118–24. <https://doi.org/10.1002/wps.20310>.
7. Fusar-Poli P, Borgwardt S, Bechdolf A, Addington J, Riecher-Rössler A, Schultze-Lutter F, et al. The psychosis high-risk state: a comprehensive state-of-the-art review. *JAMA Psychiatry*. 2013;70(1):107–20. <https://doi.org/10.1001/jamapsychiatry.2013.269>.

8. Schultze-Lutter F, Debbané M, Theodoridou A, Wood SJ, Raballo A, Michel C, et al. Revisiting the basic symptom concept: toward translating risk symptoms for psychosis into neurobiological targets. *Front Psychiatry*. 2016;7:9. <https://doi.org/10.3389/fpsyt.2016.00009>.
9. Raballo A, Poletti M, Preti A, McGorry P. Clinical high risk for psychosis in children and adolescents: a meta-analysis of transition prevalences. *Schizophr Res*. 2022;243:254–61. <https://doi.org/10.1016/j.schres.2020.03.063>.
10. Raballo A, Poletti M, Preti A. Clinical High Risk for Psychosis (CHR-P) in children and adolescents: a roadmap to strengthen clinical utility through conceptual clarity. *Eur Child Adolesc Psychiatry*. 2024;33(6):1997–9. <https://doi.org/10.1007/s00787-023-02139-2>.
11. Salazar de Pablo G, Soardo L, Cabras A, Pereira J, Kaur S, Besana F, et al. Clinical outcomes in individuals at clinical high risk of psychosis who do not transition to psychosis: a meta-analysis. *Epidemiol Psychiatr Sci*. 2022;31:e9. <https://doi.org/10.1017/S2045796021000639>.
12. McGorry PD, Hartmann JA, Spooner R, Nelson B. Beyond the at risk mental state concept: transitioning to transdiagnostic psychiatry. *World Psychiatry*. 2018;17(2):133–42. <https://doi.org/10.1002/wps.20514>.
13. Shields GS, Sazma MA, Yonelinas AP. The effects of acute stress on core executive functions: a meta-analysis and comparison with cortisol. *Neurosci Biobehav Rev*. 2016;68:651–68. <https://doi.org/10.1016/j.neubiorev.2016.06.038>.
14. Arnsten AFT. Stress signalling pathways that impair prefrontal cortex structure and function. *Nat Rev Neurosci*. 2009;10(6):410–22. <https://doi.org/10.1038/nrn2648>.
15. Rahdar A, Galván A. The cognitive and neurobiological effects of daily stress in adolescents. *NeuroImage*. 2014;92:267–73. <https://doi.org/10.1016/j.neuroimage.2014.02.007>.
16. Oeztuerk OF, Pigioli A, Antonucci LA, Koutsouleris N. Association between formal thought disorders, neurocognition and functioning in the early stages of psychosis: a systematic review of the last half-century studies. *Eur Arch Psychiatry Clin Neurosci*. 2022;272(3):381–93. <https://doi.org/10.1007/s00406-021-01295-3>.
17. Minor KS, Marggraf MP, Davis BJ, Mehdiyou NF, Breier A. Affective systems induce formal thought disorder in early-stage psychosis. *J Abnorm Psychol*. 2016;125(4):537–42. <https://doi.org/10.1037/abn0000156>.
18. World Health Organization. WHO guidelines for the health sector response to child maltreatment [Internet]. Geneva: World Health Organization. 2019 [cited 2026 Jul 28]. Available from: <https://www.who.int/publications/m/item/who-guidelines-for-the-health-sector-response-to-child-maltreatment>
19. Abregú-Crespo R, Garriz-Luis A, Ayora M, Martín-Martínez N, Cavone V, Carrasco MÁ, et al. School bullying in children and adolescents with neurodevelopmental and psychiatric conditions: a systematic review and meta-analysis. *Lancet Child Adolesc Health*. 2024;8(2):122–34. [https://doi.org/10.1016/S2352-4642\(23\)00289-4](https://doi.org/10.1016/S2352-4642(23)00289-4).

20. Benner AD, Wang Y, Shen Y, Boyle AE, Polk R, Cheng YP. Racial/ethnic discrimination and well-being during adolescence: a meta-analytic review. *Am Psychol*. 2018;73(7):855–83. <https://doi.org/10.1037/amp0000204>.
21. Kowalski RM, Giumetti GW, Schroeder AN, Lattanner MR. Bullying in the digital age: a critical review and meta-analysis of cyberbullying research among youth. *Psychol Bull*. 2014;140(4):1073–137. <https://doi.org/10.1037/a0035618>.
22. Luyten P, Campbell C, Allison E, Fonagy P. The mentalizing approach to psychopathology: state of the art and future directions. *Annu Rev Clin Psychol*. 2020;16:297–325. <https://doi.org/10.1146/annurev-clinpsy-071919-015355>.
23. Diamond A. Executive functions. *Annu Rev Psychol*. 2013;64:135–68. <https://doi.org/10.1146/annurev-psych-113011-143750>.
24. Eysenck MW, Derakshan N, Santos R, Calvo MG. Anxiety and cognitive performance: attentional control theory. *Emotion*. 2007;7(2):336–53. <https://doi.org/10.1037/1528-3542.7.2.336>.
25. McWhirter L, Smyth H, Hoeritzauer I, Couturier A, Stone J, Carson AJ. What is brain fog? *J Neurol Neurosurg Psychiatry*. 2023;94(4):321–5. <https://doi.org/10.1136/jnnp-2022-329683>.
26. Kircher T, Bröhl H, Meier F, Engelen J. Formal thought disorders: from phenomenology to neurobiology. *Lancet Psychiatry*. 2018;5(6):515–26. [https://doi.org/10.1016/S2215-0366\(18\)30059-2](https://doi.org/10.1016/S2215-0366(18)30059-2).
27. Wainipitapong S, Millman LSM, Huang X, Wieder L, Terhune DB, Pick S. Assessing dissociation: a systematic review and evaluation of existing measures. *J Psychiatr Res*. 2025;181:91–8. <https://doi.org/10.1016/j.jpsychires.2024.11.040>.
28. National Institute for Health and Care Excellence. Autism spectrum disorder in under 19s: support and management [Internet]. London: NICE. 2013 [updated 2021; cited 2026 Jul 28]. NICE guideline CG170. Available from: <https://www.nice.org.uk/guidance/cg170>
29. Bishop DVM, Snowling MJ, Thompson PA, Greenhalgh T, CATALISE-2 Consortium. Phase 2 of CATALISE: a multinational and multidisciplinary Delphi consensus study of problems with language development: terminology. *J Child Psychol Psychiatry*. 2017;58(10):1068–80. <https://doi.org/10.1111/jcpp.12721>.
30. Fonagy P, Target M. Attachment and reflective function: their role in self-organization. *Dev Psychopathol*. 1997;9(4):679–700. <https://doi.org/10.1017/S0954579497001399>.
31. Misiak B, Krefft M, Bielawski T, Moustafa AA, Szaśiadek MM, Frydecka D. Toward a unified theory of childhood trauma and psychosis: a comprehensive review of epidemiological, clinical, neuropsychological and biological findings. *Neurosci Biobehav Rev*. 2017;75:393–406. <https://doi.org/10.1016/j.neubiorev.2017.02.015>.
32. Zhang WH, Zhang JY, Holmes A, Pan BX. Amygdala circuit substrates for stress adaptation and adversity. *Biol Psychiatry*. 2021;89(9):847–56. <https://doi.org/10.1016/j.biopsych.2020.12.026>.
33. Borsboom D. A network theory of mental disorders. *World Psychiatry*. 2017;16(1):5–13. <https://doi.org/10.1002/wps.20375>.

34. Jonas KG, Cannon TD, Docherty AR, Dwyer D, Gur RC, Gur RE, et al. Psychosis superspectrum I: nosology, etiology, and lifespan development. Mol Psychiatry. 2024;29(4):1005–19. <https://doi.org/10.1038/s41380-023-02388-2>.
35. Guloksuz S, van Os J. The slow death of the concept of schizophrenia and the painful birth of the psychosis spectrum. Psychol Med. 2018;48(2):229–44. <https://doi.org/10.1017/S0033291717001775>.
36. Denton R, Frogley C, Jackson S, John M, Querstret D. The assessment of developmental trauma in children and adolescents: a systematic review. Clin Child Psychol Psychiatry. 2017;22(2):260–87. <https://doi.org/10.1177/1359104516631607>.

Figures

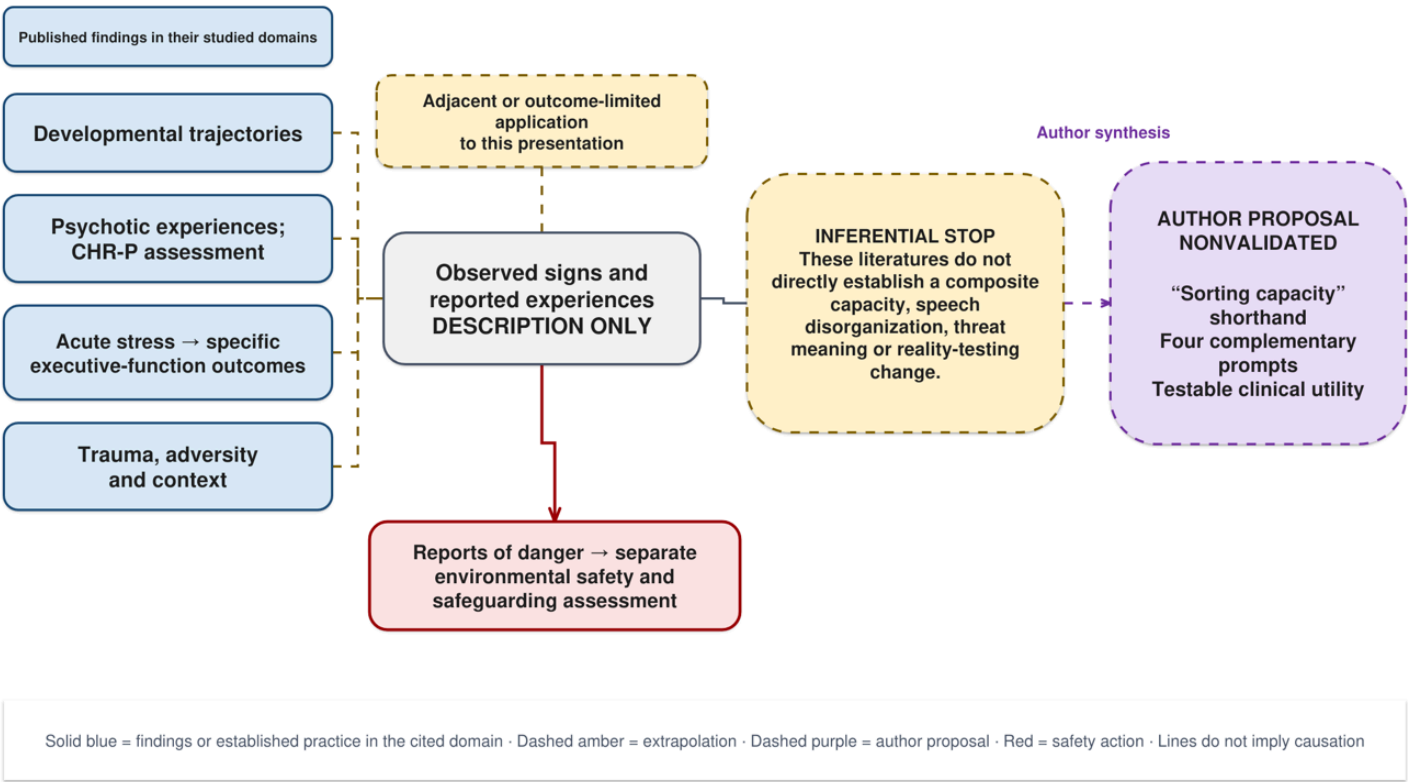


Figure 1

Evidence-to-proposal boundary. Published literatures support specific findings in their studied populations and outcomes but do not directly establish a composite sorting capacity or changes in speech organization, threat meanings, or reality testing. The right-hand elements are the author’s nonvalidated proposal; reports of danger require separate environmental safety and safeguarding assessment

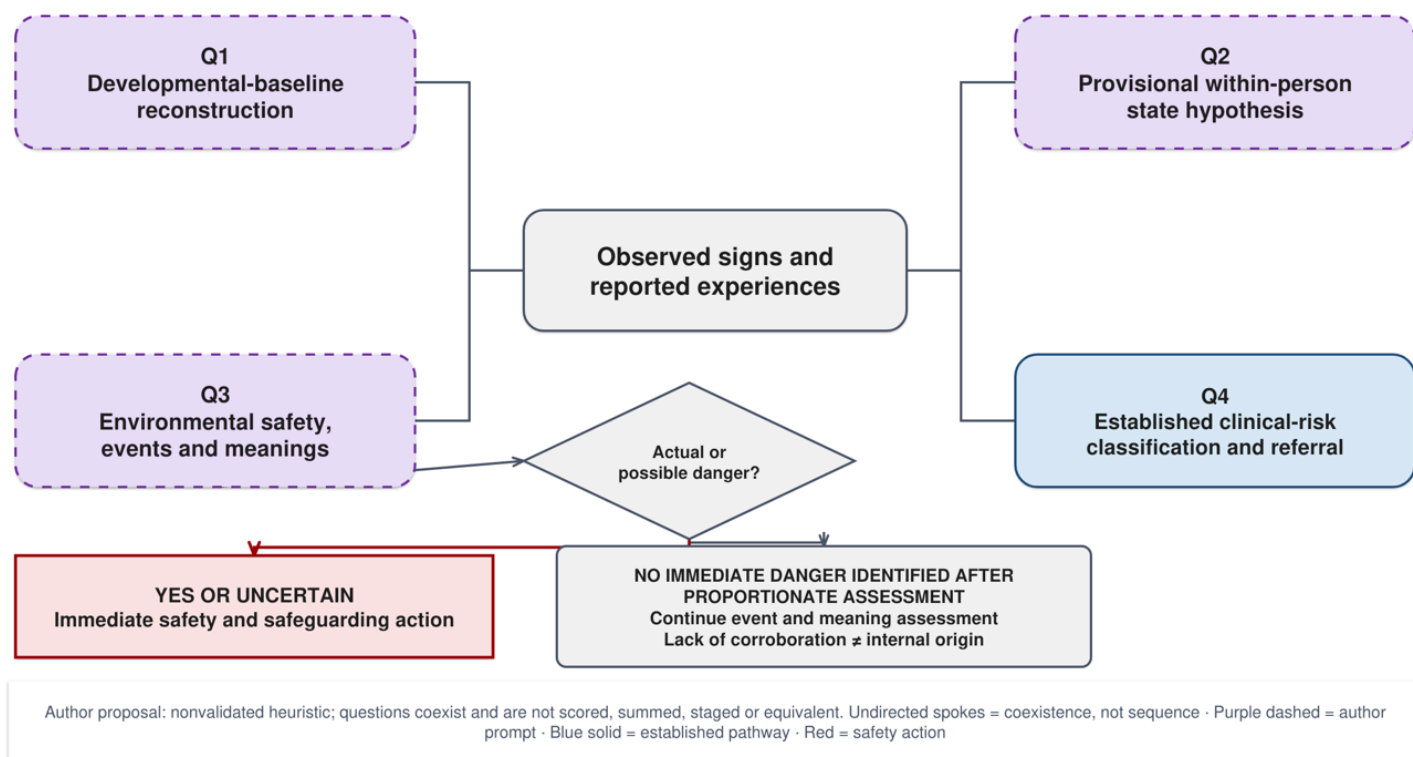


Figure 2

Four complementary formulation questions. The author-proposed heuristic holds developmental-baseline reconstruction, a provisional within-person state hypothesis, environmental safety/events/meanings, and established clinical-risk classification/referral in parallel. The questions may coexist and are not scored, summed, staged, or equivalent; possible danger prompts immediate safety and safeguarding action

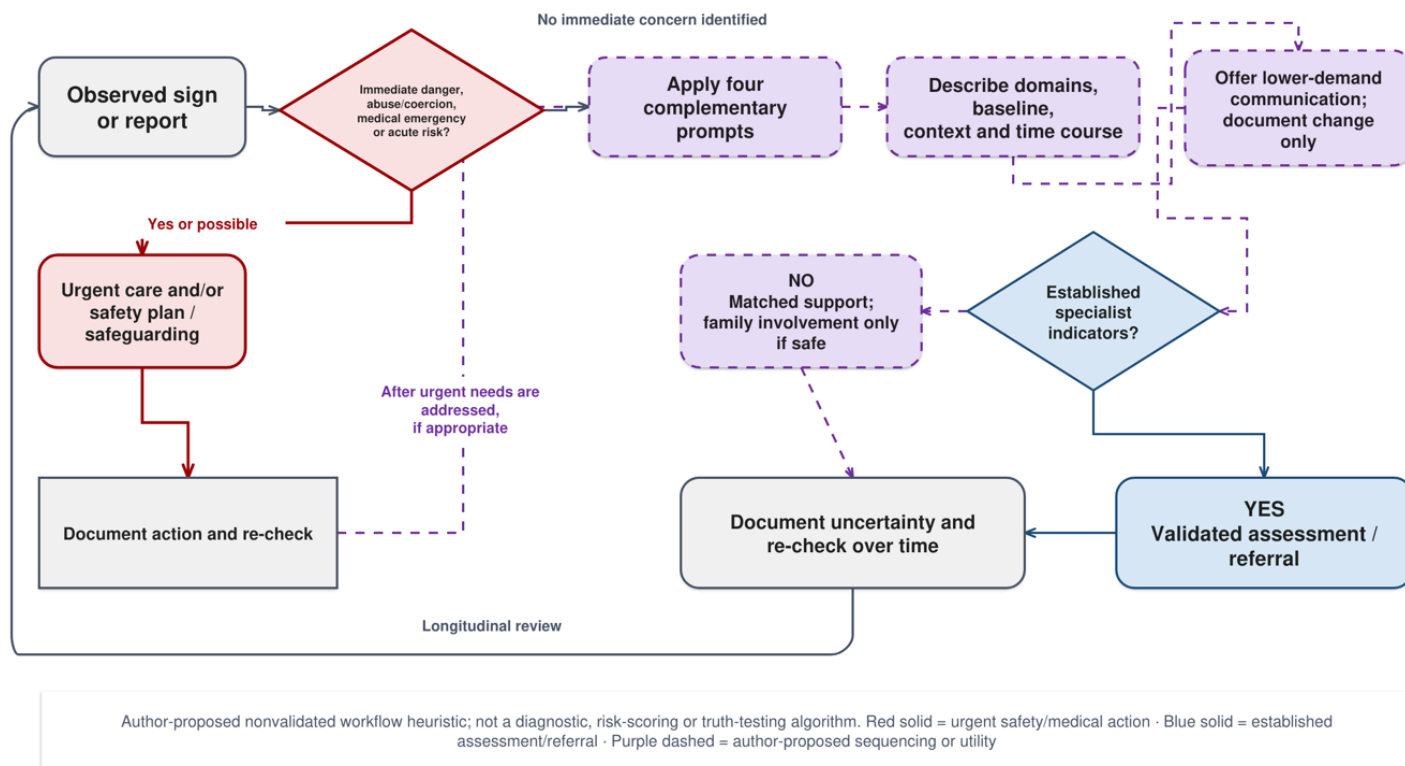


Figure 3

Safety-gated formulation workflow. Immediate environmental, safeguarding, medical, and acute-risk needs are addressed before or alongside the nonvalidated formulation prompts; validated assessment and referral remain necessary when indicated. Lower-demand communication provides descriptive information only, and family involvement is conditional on safety. The workflow is not a diagnostic or truth-testing algorithm