CHAPTER 3: THE LIMITS OF LANGUAGE

We face an immediate difficulty. In the previous chapter, we used terms like "continuum frameworks," "consciousness," "matter," "manifestation," and "aspectual unity" to articulate an alternative understanding of reality. But these words—indeed, the entire conceptual apparatus of modern discourse—are not designed to capture what we're attempting to discuss. This is not merely a problem of vocabulary, of finding better words to express pre-existing thoughts. Language shapes thought at a fundamental level, actively constraining what we can conceive.

The problem runs deeper than you might expect. We cannot adequately define even the most basic terms. What is "matter"? Physics describes its structure, relations, and behavior with extraordinary precision—Russell's "causal skeleton of the world"—but remains silent about its intrinsic nature. Although we know with certainty that matter exists, we cannot say what it *is*, only what it does. "Fundamental particle" reduces to what? Describes what? The question "what is matter?" hits language limits before it reaches conceptual ones.

The definitional problem of "consciousness" is even more acute. Any definition proves circular. "What it's like from inside" presumes consciousness to understand the definition. "Subjective experience" defines one mystery with another. "Phenomenal awareness" uses synonyms without explaining. The hard problem is partly a language problem: we're trying to describe from outside what only exists from inside, like asking what red looks like using only words.

Even the terminology used for continuum frameworks is imperfect. We use "psycho-" (mental) and "-physical" to describe something supposedly prior to that distinction. The word "continuum" suggests a line with poles, but that spatial metaphor may itself distort. We use this terminology as the least problematic available, not because it perfectly captures what we mean.

Consider the structure of English grammar itself. Subject-verb-object construction embeds a particular metaphysics: things (nouns) that do actions (verbs) to other things (objects). This structure makes it nearly impossible to discuss consciousness without treating it as either a thing that exists, a process that happens, or a property that things have. But what if consciousness is none of these? What if, as continuum frameworks suggest, both mental and physical features differentiate from something that the subject-object grammar simply cannot express? Our fundamental grammatical categories themselves may foreclose certain possibilities.

This grammatical constraint is not universal. In Chinese, 心 (xīn)—often translated as "heart-mind"—functions as both noun and verb,

allowing more fluid expression of consciousness as activity rather than substance. The Blackfoot language, as physicist F. David Peat documented, structures reality primarily through verbs rather than nouns, enabling speakers to express process and relationship more naturally than English allows. The difficulty we face discussing continuum frameworks may reflect not the framework's inadequacy but English grammar's particular metaphysical commitments.

The philosopher Anthony O'Hear observes that

> "whatever may be true at the level of physics or chemistry or neurophysiology, in the macroscopic world neither external objects nor internal feelings come packaged in predetermined categories. This means that the symbolic categorization through language is not just a reading-off from what is already there. Language plays an active role in shaping our picture of the world and of ourselves."

We are not discovering labels for pre-existing categories; we are creating categories through the act of labeling. And once created, those categories constrain what we can think. This constraint operates below conscious awareness.

A Simple Example: Flatland

Edwin Abbott's 1884 novella *Flatland* offers a useful illustration. In Abbott's imagined world, beings live in a two-dimensional plane, possessing length and width but no height. For these creatures, three-dimensional space is literally inconceivable—not merely unknown, but impossible to think about using their available conceptual resources.

When a three-dimensional sphere passes through Flatland, the two-dimensional inhabitants perceive only a circle that mysteriously grows and then shrinks. They can describe what they observe using their two-dimensional language: "a circular object appeared, expanded to maximum diameter, then contracted and disappeared." But this description, while accurate within its framework, completely misses the actual nature of what happened. The sphere itself—the three-dimensional object in motion—cannot be captured in two-dimensional vocabulary.

A perceptive Flatlander might recognize that something is wrong with their description, that it fails to capture some essential aspect of the phenomenon. They might even hypothesize the existence of a third dimension. But they cannot visualize it. They cannot think it. Their mental architecture simply lacks the required structure.

Even if a three-dimensional visitor told them about "height" or "depth," these words would remain empty sounds. The Flatlanders could memorize the definition—"height: a dimension perpendicular to both length and width"—but this would be mere verbal formula, not

genuine understanding. True comprehension would require a mode of apprehension that their two-dimensional existence does not provide.

Isaac Asimov, in his introduction to *Flatland*, extends the lesson:

> "This book should lead us to question the limitations we set to our Universe generally, not only those that are mathematical and physical, but those that are sociological as well. How far are our assumptions justified, and to what extent are they merely careless, or self-serving, misinterpretations of reality?"

Abbott's parable suggests something important: when concepts genuinely outrun our conceptual machinery, new vocabulary helps only at the margins. We may need different modes of engagement altogether. But at minimum, we need to recognize the limits of the language we're using.

The Quantum Precedent

The history of quantum mechanics provides a real-world case where exactly this situation arose. In the early twentieth century, physicists discovered phenomena that could not be captured in ordinary language. Electrons and photons behaved in ways that violated basic assumptions embedded in classical vocabulary.

Werner Heisenberg realized that

> "the supposed ambiguities of the quantum theory were essentially a problem of language. The issue was how to define words such as 'position' and 'velocity' in the ambiguous realm of the atom, a world in which 'things' can be both wave and particle at the same time."

The problem went deeper than ambiguity. Certain quantum mechanical concepts, Heisenberg noted, were "derivable neither from our laws of thought nor from experiment." The very categories available in ordinary language—derived from macroscopic experience and classical physics—simply did not apply at the quantum scale.

Physicists found themselves analogous to Flatlanders encountering a sphere: they could track measurable effects, but the conceptual categories available to them could not capture what they were actually observing. Yet there's a crucial difference. Flatlanders cannot conceive of a third dimension at all—the very concept lies beyond their mental architecture. Quantum physicists, by contrast, could turn to mathematics for adequate descriptions, even if ordinary language failed. Our situation with consciousness and continuum frameworks more closely resembles the Flatlanders' predicament. We're attempting to discuss something that may outrun not just our vocabulary but our conceptual categories themselves—categories shaped by centuries of assuming matter and mind are fundamentally separate entities. Take quantum

field fluctuations, a staple of modern physics. Physicist Sean Carroll points out that this language is essentially poetic:

> "Quantum fields don't really 'fluctuate'; that's poetic language, employed to help us connect to our classical intuition. What fluctuates are our observations—we can look at the same field multiple times and measure different values."

The word "fluctuation" imports classical mechanics concepts into a domain where those concepts do not properly apply. But physicists have no other words.

Niels Bohr emphasized this predicament repeatedly. "We are forced to use the language of classical physics," he said, "simply because we have no other language in which to express the results." Even when physicists knew that classical concepts were inadequate, they had no alternative vocabulary for communicating their findings.

But Bohr went further, making a more radical claim about the relationship between language and reality. When a philosopher suggested to him that "it cannot be language which is fundamental, but that it must be reality which, so to speak, lies beneath language," Bohr replied: "We are suspended in language in such a way that we cannot say what is up and what is down. The word 'reality' is also a word, a word which we must learn to use correctly."

Bohr was pointing to something pragmatically important: we cannot step outside language to some neutral vantage point from which to evaluate whether our words accurately capture reality. We are always already inside language, and "reality" is itself a word whose meaning we negotiate through language. The question is not whether language perfectly mirrors reality—it cannot—but how to use language responsibly given these constraints.

Quantum mechanics found a way forward, though not by improving ordinary language. Instead, physics developed mathematical formalisms that could express relationships and structures that words could not capture. Mathematics succeeded where ordinary language failed because it could represent quantum reality's structure without forcing it into categories borrowed from everyday experience.

But even mathematical formalism required interpretation—at least for some physicists. The mathematics worked spectacularly for predictions, but deep disagreements emerged about what it *meant*. The Copenhagen Interpretation, dominant for decades, essentially declared such questions meaningless: calculate, predict, move on. Niels Bohr insisted we should not ask what quantum mechanics tells us about reality independent of observation.

Yet other physicists—Einstein, Bohm, and contemporary researchers exploring quantum foundations—insisted that understanding

what the mathematics represents matters. Bohm developed his alternative interpretation precisely because he believed physics should describe reality, not just predict measurements. This tension persists: some say interpretation is philosophy, not physics; others say physics without interpretation is mere calculation.

We face a similar choice with consciousness, though our situation differs in a crucial way. Mathematical formalism won't help us discuss continuum frameworks—these aren't mathematical structures. But we can learn from how quantum physicists handled language limits: acknowledge the inadequacy, use terms carefully and often symbolically, and remain explicit about where language breaks down. Even when they disagreed about interpretation, physicists had to communicate using ordinary language, carefully employed despite knowing classical concepts were inadequate.

The Terms We're Using

Throughout the previous chapter, we employed terminology that requires careful handling:

"Psychophysical continuum" - The specific term that Pauli and Jung used in developing their framework. They required the language of "psycho-" (mental) and "-physical" to describe something they understood to be prior to that very distinction—a linguistic bind they acknowledged but could not escape. The spatial metaphor of a "continuum" may itself be misleading, yet they found no better alternative. We use "continuum frameworks" (plural) to acknowledge that multiple variations of this general approach exist, each with somewhat different emphases.

"Consciousness," "mind," "awareness" - All defined relative to human experience. We have no neutral terms for discussing non-anthropocentric interiority. Even saying "interiority" or "experiential aspect" carries human-centric assumptions about what experience might be like.

"Matter," "physical," "material" - We use these as if they're clear, but physics describes only structure and behavior, not intrinsic nature. When we say "physical aspect of the continuum," we're using "physical" to mean something like "exterior, relational, measurable"—but that's already an interpretation, not a transparent description.

"Manifestation," "differentiation," "aspect" - We chose these to avoid "emergence" and "causation" which carry mechanistic implications. But our alternatives aren't neutral—they carry their own metaphorical baggage. "Manifestation" suggests something revealing what was hidden. "Differentiation" suggests division of what was unified. "Aspect" suggests perspectives on something more fundamental.

These are all imperfect metaphors.

"Decompositional" versus "compositional" - Harald Atmanspacher formalized this distinction in developing the Pauli-Jung framework, and it proves philosophically crucial: compositional approaches build consciousness from parts (facing the combination problem), while decompositional frameworks understand mental and physical as differentiating aspects of an undivided whole. Yet even these technical terms are cumbersome and metaphorical, using spatial language ("breaking apart" vs "assembling") that may not fit the reality they're meant to describe.

The point is not that these terms are useless. They're necessary tools. But they're not transparent windows into reality. They're more like the classical physics concepts that quantum mechanics had to repurpose—useful but requiring careful handling, with their limitations explicitly acknowledged.

Scientific Vocabulary Encodes Framework

The problem of language extends beyond particular words to entire conceptual structures. Consider how biological and neuroscientific terminology embeds physicalist assumptions:

When researchers describe plant responsiveness, they reflexively use "tropism" (mechanical turning) rather than "response" (which might imply agency). Root networks become "chemical signaling" rather than "communication." The vocabulary itself predetermines what interpretations seem reasonable. Calling something a "mechanism" rather than an "organized system" or a "process" subtly closes questions about interiority before they're asked.

"Higher" and "lower" animals—this supposedly descriptive terminology encodes a progress narrative. "Primitive" versus "advanced" does the same. "Instinct" versus "intelligence" smuggles in the mind-body dualism we're questioning. Each term carries metaphysical commitments that operate invisibly.

Even "evolution" itself—which ought to be neutral regarding direction or progress—has come to imply movement toward greater complexity, sophistication, consciousness. The framework is encoded in the vocabulary at a level that makes it nearly invisible.

This is why continuum frameworks sound strange. Not because they're less rigorous or less empirically grounded, but because we lack established vocabulary for expressing them. The modern scientific worldview has had four centuries to develop and refine its conceptual apparatus. Alternatives must work with borrowed language, repurposed terms, and careful qualifications—all of which make them seem less natural, less obvious, when they're actually just less linguistically

embedded.

Working Within Constraints

We cannot escape these linguistic constraints. As Bohr recognized, we are suspended in language, unable to step outside to some neutral vantage point. But we can work responsibly within these limits—using terms carefully, acknowledging their inadequacy, and remaining explicit about where language breaks down.

Throughout subsequent chapters, we will use terms like "consciousness," "mind," "manifestation," and "continuum frameworks." These are necessary tools, not transparent descriptions of reality. Like the classical physics concepts that quantum mechanics had to repurpose, they're useful but require careful handling.

At key moments, we will also ask for something beyond purely linguistic understanding—for intuitive recognition rather than verbal definition. This includes the direct knowing of your own consciousness without requiring words, or grasping the insufficiency of mechanistic accounts without articulating exactly why they fail. These are not failures of argumentation but places where argument points toward what cannot be fully captured in language alone.

If quantum mechanics needed mathematics to express what ordinary language could not capture, and if even mathematics required careful interpretation using imperfect words, then investigating consciousness requires similar intellectual humility. We use the best language available while acknowledging its inadequacy. We point toward features of reality that resist complete linguistic capture. And in later chapters, we discuss modes of engagement beyond purely verbal understanding.

The risk of being misunderstood or called mystical is real. But the greater risk is letting those fears trap us in conceptual boxes we know to be inadequate—using vocabulary that seems precise because it's familiar, when that familiarity reflects four centuries of habituation to a particular framework rather than transparency to reality itself.

With these limitations acknowledged, we can now examine the evidence. The next chapter investigates how widely consciousness manifests across evolution—using imperfect terms carefully, noting where language becomes strained, and asking you to see what the words can only approximate.