

Article

Justified True Belief + Diachronic Justification: A Contemporary Defence

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Abstract

I defend a diachronic constraint on justification as a necessary condition for knowledge. In my view (JTB + D), a belief is knowledge-apt only if its justification is maintainable over a context-sensitive interval Δ under ordinary avenues of evidence-accrual, including reliable memory, testimony, and communal inquiry, with no accessible undefeated defeaters arising within that interval. This temporal, process-sensitive requirement mitigates Gettier-style luck by targeting “snapshot” justification that would easily collapse under minimal further scrutiny (as in Fake Barn County), while avoiding infallibilism and over-intellectualism. I calibrate Δ by stakes and domain volatility to avoid vagueness and moving goalposts, distinguish responsive stability from mere habituation, and show how the account handles no-new-evidence scenarios without undermining ordinary memorial and testimonial knowledge. Conceptually, the proposal integrates internalist and externalist insights as it preserves reason-responsiveness over time and serves as an actual-world temporal analogue of safety, not a standalone fourth ‘dimension’. I engage canonical cases and acknowledge Zagzebski’s challenge: the view does not promise full Gettier immunity, but it raises the bar for counterexamples in ordinary environments. The result is a principled, parameterised refinement of the justification condition that better captures knowledge as an enduring, responsibly supported true belief.

Keywords: Gettier problem; diachronic justification; epistemic luck; JTB analysis; knowledge theory



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1. Introduction

Contemporary epistemology still grapples with the classic Justified True Belief (JTB) analysis of knowledge. According to the traditional tripartite account, knowledge is justified true belief: one knows that p if and only if (i) p is true, (ii) one believes p , and (iii) one is justified in believing p . This view, often traced back to Plato, holds that mere true belief is insufficient; there must be a *logos* or reason tethering the true belief. In Plato’s dialogue *Meno*, Socrates analogises true beliefs without reasons to untethered statues that wander off [1]. Only when tied down by an account do true beliefs stay in place to constitute knowledge [2,3]. This metaphor captures the intuition that knowledge is more stable or secure than lucky guesses, foreshadowing the need for justification as the tether. [While recent scholarship questions whether JTB was ever historically dominant (see for example [4]), here I use JTB as a theoretically perspicuous foil rather than as a historiographic thesis].

However, since Edmund Gettier’s seminal 1963 paper, philosophers have widely accepted that JTB is not sufficient for knowledge. Gettier presented thought experiments

where a person has a belief that is true and well-justified, yet we hesitate to call it knowledge because the truth of the belief is a matter of luck or coincidence. These so-called Gettier cases have become standard objections to the JTB analysis [5]. Gettier's challenge launched a flurry of attempts to salvage the JTB model by either refining the justification condition or appending an additional condition to eliminate the element of luck [2,4,6,7]. Alongside these JTB + X moves, knowledge-first and virtue-theoretic approaches have also shifted attention away from reductive analyses; my present proposal is crafted to be compatible with that broader landscape.

In what follows, I defend a revised JTB model by proposing an added diachronic justification condition (hereafter JTB + D) as a necessary, though not sufficient, constraint on the justification that can ground knowledge. The core idea is that knowledge requires a belief to be justified over time, not merely at the moment of assessment. In other words, the justification for one's belief must be diachronically stable and resilient, persisting through inquiry and not easily overturned by new information. Importantly, "diachronic" here does not mean mere persistence or habituation: endurance must be responsively stable. That is, it should remain in good epistemic standing under ordinary opportunities for evidence increase, rather than ossify through time. To avoid vagueness and over-demandingness, I treat diachronicity as a matter of maintainability over a contextually reasonable temporal corridor. In short: for an interval Δ appropriate to the stakes and volatility of the subject's environment, and under the ordinary avenues of evidence-accrual available to the subject (or the subject's epistemic community), the subject's justification for p would remain undefeated; if accessible defeaters arise within Δ , knowledge is lost. [That is to say, Δ denotes a time-window or "temporal corridor" relevant to diachronic justification—the idea that a belief's justification must persist over an interval, not just in a moment. In effect, a belief is diachronically justified if it remains justified throughout a period Δ , reflecting that knowledge should result from an adequate investigation over time rather than a momentary lucky hunch.]

This construal allows memory and testimony to transmit diachronic justification without requiring heroic, continuous re-checking by every individual agent. By demanding this temporal dimension of justification, I aim to rule out the aberrant epistemic luck exemplified in Gettier-style scenarios. [I use temporal and diachronic synonymously in this paper.] My discussion focuses on contemporary analytic epistemology: I engage directly with standard objections to JTB, and situate my proposal among post-Gettier responses. Historical context from Plato and others will be noted where relevant, but the emphasis is on recent debates and how a diachronic condition might address them. [For expository continuity I retain the label 'JTB + D', though the intended upshot is to strengthen the J-condition diachronically; one could well equally speak of 'DJTB'.]

Throughout the paper, I shall use a running example to illustrate key points: Fake Barn County (adapted from [8]). This thought experiment features an environment full of deceptive fakes, ensuring that a person's justified true belief can be accidentally true. By revisiting this example at each stage, I clarify how a diachronic justification requirement operates and why it offers a promising anti-luck condition. I adopt a modest aim: I argue conceptually that diachronically adequate justification is a necessary component of knowledge that mitigates, and does not necessarily aim to eliminate, Gettier-style luck. I anticipate objections, including the charge that any JTB + X fix succumbs to new counter-examples (cf. [9]), and I explain why a process-sensitive, temporally extended requirement is less susceptible to standard Gettierisation strategies. In defending JTB + D, I hope to show that temporal justification is an indispensable (even if not wholly sufficient) condition for knowledge, capturing the intuition that knowing is an enduring achievement, not a momentary coincidence.

2. The Gettier Problem and the Tripartite Analysis

It will be useful to begin by summarising the Gettier problem and why it undermines the simple JTB account. According to JTB, if I form a belief that happens to be true and I have justification for it, then I should count as knowing it [2]. Gettier's counterexamples show that this inference fails: one can have a justified true belief that p without actually knowing p , if the truth of p is in an important sense accidental relative to one's justification. These original cases involved inferences from a justified false belief that nonetheless yield a true conclusion. For example, in one case Smith is justified in believing the proposition (a) "Jones owns a Ford". From this, Smith infers the disjunction (b) "Either Jones owns a Ford or Brown is in Barcelona". Unbeknownst to Smith, Jones in fact does not own a Ford; his evidence, though strong, is misleading. Coincidentally, however, Brown *is* in Barcelona, making proposition (b) true. Smith thus holds a belief that (b) is true and justified (since he had good evidence for the first disjunct). Intuitively, however, Smith does not know (b). He arrived at the truth purely by luck: had things turned out slightly differently (e.g., Brown traveling elsewhere), his belief would have been false, and indeed his justification was essentially for a different, false claim [5]. [This paper treats such cases as revealing a structural gap between momentary justification and truth.]

Gettier's cases share a basic structure: a belief is supported by fallible justification that makes the belief likely but not infallible, and some luck intervenes to ensure the belief is true. The justification does not guarantee truth; it leaves open the possibility of error [10]. When that possibility nearly materialises (Smith's evidence was almost false) but reality serendipitously makes the belief true anyway, we get a justified true belief that seems too lucky to count as knowledge. In short, Gettier showed that the JTB conditions, even though individually necessary, are jointly insufficient; something is missing in the analysis of knowledge. Since 1963, virtually all epistemologists have accepted this point [2,11,12]. At the same time, recent work has questioned the historical centrality of JTB; I therefore use JTB as a theoretically convenient foil for isolating the role of diachronic stability in undermining luck, rather than as a claim about historical consensus [13,14].

Standard Gettier-style scenarios come in many variants. Some, like Gettier's own, involve deducing a true belief from a false lemma. Others involve perceptual illusions with hidden truths. For instance, a classic example by Chisholm [15] has a farmer looking into a field at what appears to be a sheep; in fact it is a dog cleverly disguised as a sheep, yet by coincidence there is a real sheep elsewhere in the field behind a hill. The farmer's belief that there is a sheep in the field is true (since a real sheep is present) and he is justified (his vision of a woolly shape is usually good evidence). Nonetheless, we hesitate to say he knows there is a sheep in the field, because his justification was aimed at a look-alike. The truth of his belief came about by chance, not due to the reasons he had. Likewise, my chosen Fake Barn County example (adapted from Goldman [8]) illustrates an environmental Gettier case with no inference from false beliefs. In Fake Barn County, an unwitting driver (let us call him Henry) observes a barn-like structure by the road and forms the belief "There is a barn over there". Normally, a quick glance would be ample justification for such a belief. Barns are common in the countryside and Henry has no reason to suspect otherwise. The twist is that this county is full of fake barn façades: structures that look exactly like real barns from the road but are mere shells. Henry happened by luck to look at the only real barn in the area, so his belief is true. It is also justified by his ordinary perceptual faculties and background knowledge (since nothing seemed amiss). Yet intuitively Henry does not know there is a barn, because in almost any slightly different scenario he would have been deceived by a fake. As the case description emphasises, had he looked at any other time or place in that county, he would have formed a false belief about a fake barn [2,10]. The truth of Henry's belief is a matter of epistemic luck or serendipity, an accidental alignment of a

belief with reality. This luck undermines the claim to knowledge, despite the belief being both true and justified. The takeaway I draw is not that justification must be infallible, but that justification must be resilient over time in a way that filters out such flukes in ordinary contexts.

In sum, Gettier cases underscore the gap between justification and truth: a person's evidence can be strong and yet the belief only turns out true by coincidence. This gap suggests that we need some additional criterion to ensure that when someone has a justified true belief, it is not just lucky that their belief is true. The problem, then, is how to refine or add to the JTB conditions to eliminate these lucky true beliefs, without overcorrecting and demanding implausibly strict conditions that would exclude ordinary knowledge. Relatedly, the strategy pursued here is deliberately moderate: I argue that a belief's justification must be diachronically maintainable over a contextually reasonable temporal corridor, in a way that respects memory and testimony and does not require onerous investigation by every agent. Sections 5–7 articulate this corridor precisely, and explain how the condition mitigates luck even in cases where little or no new evidence later becomes available.

3. Post-Gettier Responses: Fourth Conditions and Other Approaches

Epistemologists' responses to the Gettier problem have been diverse [2]. Broadly, two strategies have emerged: (1) strengthen the justification condition itself, or (2) add a new condition to JTB, yielding JTB + X analyses of knowledge. Strategy (1) might involve insisting on a kind of justification so strong that it cannot lead to a true belief being accidentally right (for example, requiring infallible or indefeasible justification). Strategy (2) accepts that justification can be fallible, but attempts to append an independent fourth requirement that rules out the bad cases [2]. Both approaches saw many proposals in the literature from the 1960s onward [2]. In parallel, non-reductive approaches (e.g., knowledge-first, virtue epistemology, and explicit anti-luck programmes) (see, for example, [16–18]) shifted focus away from repairing JTB toward explaining how truth is attained non-accidentally. The present proposal is designed to be compatible with that landscape: I treat diachronic justification not as a stand-alone sufficient fix, but as a necessary constraint on the kind of justification that can ground knowledge, whatever one's broader theoretical commitments.

One early proposal for the fourth condition was to require that the knower's belief not be based on any false premise or lemma (the so-called 'No False Lemmas' approach, i.e., JTB + No Falsehood). This idea, sometimes attributed to Michael Clark [19] and famously advocated by Lehrer and Paxson [20] in a modified form, targets Gettier's original structure: in Gettier's cases the subject inferred their true belief from a falsehood. For example, Smith's belief (b) "Jones owns a Ford or Brown is in Barcelona" was inferred from the false belief "Jones owns a Ford". If one simply adds: "(iv) S's belief that *p* is not inferred from any falsehood", then Gettier's cases would be disqualified. Indeed, this condition explains why Smith lacks knowledge: his justification relied essentially on a false belief, so even though the end belief was true, knowledge is blocked [2,10,19,20]. Still, the dialectic quickly moved beyond no-false-lemma proposals: environmental luck (as in Fake Barn), and purely perceptual Gettier cases do not involve any false inferential step, suggesting that what matters is not merely the absence of error in one's premises but the stability of one's epistemic position against easily uncovered truths.

While initially promising, the no-false-lemmas amendment was soon found to be too weak. There are Gettier-type scenarios where the believer does not infer the belief from any false step, yet we still have the same problem. The Fake Barn case is one such example: Henry did not infer his barn belief via any false belief; he simply had a direct visual perception of what was in fact a real barn. Condition (iv) is satisfied (Henry's belief was not

based on any mistake—his visual experience was veridical in that instance). Nonetheless, Henry's belief is true by fluke, hence not knowledge. Another example is the robot dog case: James sees what looks exactly like a dog in a field and justifiably believes "There is a dog in the field", but unbeknownst to him it is a robotic replica; however, by coincidence a real dog is hidden out of sight, so his belief is true. James did not infer his belief from anything false, it was directly from perception, yet his justification was undermined by a hidden aspect of the situation [2]. Once again, clause (iv) ('no false lemmas') is met, but we hesitate to say James knows there is a dog in the field. These cases show that avoiding false lemmas is not sufficient to avoid Gettier-style luck. The core issue is not just false evidence, but incomplete or misleading evidence that could easily have led one astray. In Henry's case, all his evidence was true (his visual experience accurately depicts a barn); the problem is the environmental odds were stacked against him. As analysts noted, one can construct counterexamples to JTB + No False Lemmas that involve no inferred falsehood whatsoever. Thus, the no-false-lemmas theory fails to provide a general solution [2]. This motivates a shift from snapshot conditions to process-sensitive requirements that reflect how justification fares as inquiry unfolds.

A more sophisticated strategy (related to strengthening justification) is the idea of defeasibility conditions on knowledge. Roughly, a defeasibility theory says that S knows p only if there is no true information (no defeater) that would undermine S 's justification for p if S became aware of it. In other words, S 's justification must be indefeasible: it cannot be overturned by any further truths. Lehrer and Paxson [20] were pioneers of this approach, proposing that knowledge is 'undefeated' justified true belief. More formally, one version of the defeasibility condition is:

S knows p only if there is no true proposition d such that, if S were to learn d , S would no longer be justified in believing p .

This condition directly addresses the Gettier cases. Take again the Fake Barn County scenario: there is a true proposition d that Henry does not know—namely, "*Almost all the barn-looking buildings in this area are fakes*". If Henry somehow became aware of this fact d , he would immediately lose his justification for believing any particular barn is real. Thus, d is a defeater for Henry's belief. The defeasibility condition says that because such a defeater exists (even though Henry has not actually encountered it), his belief is not knowledge. Intuitively, this makes sense: Henry's belief was true by accident precisely because he lacked that further piece of information about the fake barns. For Henry to genuinely know p ("there is a barn over there"), it must not be the case that he is one fact away from discovering he was likely wrong. Knowledge requires that it not be a matter of epistemic serendipity that one's belief is true; in formal terms, the justification for the true belief must be indefeasible by any truth [2,10]. In the present view, diachronic justification can be seen as a positive, processual cousin of defeasibility: rather than merely stating that no undefeated defeater exists, it requires that one's justification be maintainable across a contextually reasonable temporal corridor under ordinary opportunities for evidence-increase [Section 5 will parameterise this corridor (Δ) to avoid vagueness.].

Defeasibility theories capture an important intuition: whenever we have a Gettier-style justified true belief, we can point to some truth the subject is missing (Jones does not own a Ford; the sheep-like object is a dog; there are barn facades around) such that if they knew that truth, they would give up or doubt their belief. The subject's epistemic position is thus fragile or unstable, too dependent on ignorance of certain facts. The solution is to demand that knowledge only obtains when no such damaging fact exists, i.e., when the justification cannot be defeated by further truth. This is equivalent to saying the justification must hold *diachronically*, across any expansion of one's evidence by truths. Indeed, Richard Swinburne characterises synchronic justification as justification at a single

time and diachronic justification as justification that results from adequate investigation over time [21]. In a similar vein, epistemologist Hans Rott notes that “*stability theories (also known as defeasibility theories) say that knowledge is belief with a stable (indefeasible) justification*” (2004, p. 327) [22]. A stable justification is one that would survive the uncovering of further truths. In other words, a justification that is not just a momentary support, but remains robust through inquiry. Crucially, to avoid over-intellectualism, “adequate investigation” need not mean heroic individual checking: testimonial and memorial routes can transmit diachronic support when the agent is embedded in a reliable epistemic community whose ongoing practices would surface defeaters within Δ .

Despite their appeal, defeasibility conditions face challenges too. Precisely formulating what counts as a defeater and how to ensure *all* potential defeaters are covered is complex [2]. Critics argue, for example, that requiring the non-existence of any possible defeater might be too strong; there may always be some unknown truth that could in principle undermine one’s belief [2]. To mitigate this, some versions restrict to relevant defeaters or those the subject could reasonably discover. Lehrer and Paxson’s [20] original formulation required that no actual undefeated justification remained, essentially, that the subject’s justification is maximally refined. Marshall Swain [23] further developed defeasibility by introducing a more technical framework for when evidence defeats justification. The general thrust, however, is consistent: knowledge cannot be defeated by later evidence. This idea will resurface when I articulate my diachronic condition in the JTB + D model. My formulation adopts these mitigations explicitly: defeaters are restricted to those accessible within the agent’s context (including via competent testimony) over Δ ; the requirement is thus: no accessible undefeated defeater, which preserves everyday knowledge while targeting paradigmatic luck.

Another major line of response (particularly in the 1970s–80s) was to impose a modal or counterfactual condition to weed out lucky truths [2]. Instead of focusing on additional evidence or reasons, these approaches ask: *in what nearby worlds or circumstances would the subject still believe the proposition, and would it still be true there?* Two influential conditions were Nozick’s sensitivity and later the safety condition advocated by Sosa and others.

Robert Nozick [6] proposed that for S to know p , it must be that if p were false, S would not believe p . This is a counterfactual condition: in the nearest possible world where the proposition p is not true, the subject no longer holds the belief. A belief that satisfies this is called sensitive to the truth. In formal terms, sensitivity = *If $\neg p$ then (S does not believe p)*, evaluated in close possible worlds [6]. The motivation is clear: in Gettier cases, had the truth been otherwise, the subject would still have believed p based on their evidence (since their evidence was not actually tracking the truth). For example, in the barn case sensitivity fails: if p (“there is a barn here”) were false, say the object were a façade, Henry *would still believe* it was a barn (because by hypothesis he cannot tell fakes from real). Thus, his belief is not sensitive to the truth; Nozick’s criterion correctly predicts Henry does not know. Similarly, if Smith’s proposition (b) were false (imagine Brown was not in Barcelona), Smith would still have believed (b) because he was relying on the Jones’s-Ford evidence, so no sensitivity, hence no knowledge. Sensitivity handled many tricky cases and had the radical implication of denying the closure of knowledge under known entailment (since one might believe an entailment without sensitively tracking it). While Nozick’s theory is no longer widely endorsed in its original form, it introduced the fruitful idea that knowledge requires a modal connection between belief and truth.

As an alternative to sensitivity, epistemologists like Ernest Sosa [7,24] and Duncan Pritchard [25] have argued that knowledge requires a belief to be safe, meaning roughly that *S would not easily believe p if p were false*. One formulation is: In all near-by possible worlds where S believes p , p is true. Intuitively, a safe belief is true not just in the actual

scenario but in all sufficiently similar scenarios. It avoids ‘almost false’ beliefs. Safety is in some sense the contrapositive of sensitivity, but it avoids some technical pitfalls and aligns with the idea of ruling out epistemic luck. For Henry’s barn belief, we see it is unsafe: there are many nearby situations (e.g., looking at the adjacent field or coming by a minute later) where he would believe “there’s a barn” and yet be wrong (because he would be looking at a fake). Therefore, his belief is not safe, and thus not knowledge, which matches our intuition. Safety conditions have been developed and refined. For example, Pritchard [25] explicitly ties safety to avoiding *luck* in true belief, coining the term ‘anti-luck epistemology’. One virtue of safety is that it handles the fake-barn type cases without requiring the believer to *actually* have different evidence; it is about the reliability of the belief across nearby possibilities. Diachronic justification can be viewed as a temporal analogue of safety in the actual world: across a reasonable time-window Δ , under ordinary evidence-accrual, a knowledge-apt belief does not easily lose its justification. This helps integrate internalist attention to reasons with externalist anti-luck structure. To reflect this, “D” can be treated as strengthening the “J” in JTB, rather than as a wholly independent box.

Modal conditions like sensitivity and safety represent externalist responses. They make knowledge depend on counterfactual factors often not accessible to the subject [2]. They have their own difficulties: specifying nearby worlds and handling edge cases (e.g., necessary truths, where p could not be false, trivially satisfy sensitivity but perhaps should not count as known in some cases, or subjects who by fluke are in a safe bubble of truth). Additionally, some argue these conditions do not adequately address all Gettier cases. For instance, there were debates whether Nozick’s sensitivity handles some logical truths or whether safety can be violated in imaginative cases without intuitively losing knowledge. The literature contains proposed counterexamples to each (e.g., Kripke’s [26] critique of sensitivity or Comesaña’s [27] counterexample to safety). Nonetheless, the key insight I take from the modal approach is the importance of the non-accidentality of true belief: knowledge should not be a matter of luck that p turned out true when one believed it. This aligns with the motivation behind my diachronic condition, but I will frame it in a somewhat more internalist-friendly way by focusing on S ’s sustained justification. Accordingly, the account below is explicitly fallibilist and modest in scope as it mitigates standard routes to Gettierisation without claiming complete immunity. That is, Δ and the “accessible defeater” restriction are introduced precisely to avoid vagueness and over-demandingness.

A brief mention should be made of virtue-theoretic approaches, which conceive knowledge as true belief attained through the exercise of intellectual virtue or competence (e.g., [24,28]). In these views, a belief is creditable to the believer’s reliable ability (not luck), thereby solving Gettier by saying Henry’s belief was not true due to his ability but due to luck, so it is not knowledge [2,10]. Knowledge-first approaches abandon the project of analysing knowledge into conditions altogether, claiming knowledge is a primitive concept [29]. My present project is deliberately moderate: it does not seek to replace virtue or knowledge-first accounts, nor to produce a Gettier-proof analysis. Rather, it articulates a necessary diachronic constraint, parameterised by Δ and grounded in accessible defeaters, that any plausible theory of knowledge should respect, including virtue-theoretic and anti-luck frameworks.

4. The Inescapability of Gettier? Objections to JTB + X Solutions

Before presenting the positive case for JTB + D, I must acknowledge a standing objection: namely, that no modification of the JTB formula can fully avoid Gettier problems. Linda Zagzebski’s influential 1994 argument is often cited in this regard. Zagzebski argues that any analysis of knowledge of the form “JTB + X” (where X is some independent condition meant to stop lucky true beliefs) will inevitably succumb to new Gettier-style

counterexamples [9]. She provides a general recipe: take a case of a justified belief that is false (which is always possible if justification is less than infallible), then simply *add* an element of luck that makes the belief true in the actual scenario. The added fourth condition X can be subverted as long as it does not logically entail the truth of the belief. More precisely, Zagzebski claims that unless the added factor guarantees truth (which would effectively make justification infallible), a clever enough scenario can always be constructed where J, T, B, and X are all present but the success of the belief is still a coincidence. In her view, the only foolproof way to prevent Gettier cases would be to posit a justification condition that precludes the possibility of justified *false* belief, essentially to require that justification entails truth [2,9]. Such a strong condition is generally seen as impractical, since it would dramatically restrict what counts as justified (very few beliefs outside of perhaps mathematics or immediate experience could meet it). Zagzebski's conclusion is that the project of analysing knowledge in terms of JTB + something may be a dead end; perhaps knowledge is unanalysable in simpler terms. For our purposes, though, this sets an appropriate target of mitigation rather than elimination of luck.

This is a serious challenge. Any JTB + X proponent must explain why their favoured X is not just another band-aid soon to peel off under the next clever counterexample. My modest stance is that while Zagzebski's logic weighs against any sufficient JTB + X analysis, a diachronic constraint can still be a necessary anti-luck filter. What distinguishes "*D*" is that it is procedural and temporally extended (rather than a static snapshot). Justification must be maintainable across a reasonable temporal corridor Δ (specified in Section 5) under ordinary avenues of evidence-accrual. This makes the recipe "take a momentarily justified false belief and add luck" harder to execute, since the belief would also have to remain (counterfactually) justified as inquiry unfolds within Δ . In many ordinary environments, accessible defeaters would surface within Δ , preventing the construction of the required diachronically justified yet false base.

It is, however, also worth noting that Zagzebski's pessimism has not gone unchallenged. Some epistemologists, while agreeing that no simple *single* condition will do, suggest that complex or multi-faceted conditions might succeed, or that we should embrace some amount of context-sensitivity in whether something is a Gettier case. For instance, the anti-luck epistemology (Pritchard) and virtue epistemology can be seen as JTB + X approaches (with X being "no luck" or "apt belief") that attempt to encapsulate a broad fix [2,25,30]. The present proposal is consonant with those developments but narrower in ambition; it strengthens the J-condition by requiring diachronic adequacy (maintainability over Δ , absence of accessible undefeated defeaters), while remaining compatible with virtue (apt performance over time) and safety (no easy error) perspectives. Yet, two clarifications blunt common worries:

(i). Over-intellectualism/Habituations

The account does not demand heroic, continuous checking by every agent. "Maintainability over Δ " can be satisfied via memory and testimony when the subject is embedded in a competent epistemic community whose ongoing practices would surface accessible defeaters within Δ . Mere persistence or habituation does not suffice; if counterevidence is accessible and ignored, a defeater exists and the condition fails. Thus, diachronicity is responsive stability, not inertia.

(ii). No-new-evidence cases

Some worry that where further evidence never becomes available, any snapshot-justified lucky belief will trivially remain "justified". In my reading, diachronicity is a counterfactual maintainability test: had ordinary inquiry been pursued within Δ (by the subject or their community), would an accessible defeater have emerged? If yes, the belief

is not knowledge-apt; if no (because there is no accessible defeater in the context), the absence of new evidence does not itself disqualify knowledge. This preserves testimonial and memorial knowledge without licensing luck, and aligns the view with moderate safety-style anti-luck.

I do, however, concede that this view may not Gettier-proof in the strong sense. One can still concoct far-fetched case such as systematic deception or global mask, where a false belief remains (apparently) undefeated across Δ , and then flips true by luck. But these require diachronically-justified-yet-false bases with no accessible defeaters over Δ , which are rare and structurally costly. The condition therefore raises the bar for Gettierisation without claiming infallibility. The pay-off is a principled, parameterised constraint on justification (i.e., diachronic maintainability over Δ) that any adequate theory of knowledge can adopt to reduce ordinary epistemic luck while avoiding vagueness and over-demandingness.

5. Diachronic Justification: Knowledge as Enduring Justified True Belief

I turn now to the central proposal: rather than adding a wholly independent fourth box, I strengthen the J-condition by requiring diachronic justification (“D”) as a necessary constraint on knowledge-apt justification. What exactly does this entail? In plain terms, it means that to know p , it is not enough that one has *some justification* for p at the moment one believes it; rather, one’s belief must be supported by justification that is stably maintainable over time, especially through ordinary, context-appropriate inquiry or evidence-gathering process. The belief’s justification should not be a one-off stroke of luck or a temporary illusion that just so happens to align with truth. Instead, the belief must (or would remain) justified across a contextually reasonable temporal corridor Δ , surviving accessible tests or challenges during that period. Formally, I replace the snapshot conception with a diachronic adequacy requirement.

(iii). Diachronic Adequacy (Context-Sensitive)

S ’s belief that p at t is knowledge-apt only if there exists a contextually appropriate interval Δ such that:

- (a) Were S (or S ’s competent epistemic community) to pursue the ordinary avenues of inquiry available within Δ starting at t , S ’s justification for p would remain undefeated.
- (b) There is no accessible undefeated defeater d for p within Δ (where accessibility tracks what could reasonably be uncovered by the agent or via reliable testimony in S ’s context).
- (c) The stability required is responsive rather than inertial: if accessible counterevidence would arise within Δ and be ignored, the condition fails.
- (d) Maintenance may proceed via memory and testimony (i.e., vicarious or communal inquiry suffices); the condition does not require heroic, continuous checking by every agent.

In this formulation, diachronic justification is a counterfactual maintainability test, not a demand that the subject actually carry out extended investigations in every case. It connects to what Richard Swinburne [21] calls adequate investigation, the idea that a justified belief might be one that the agent would arrive at and sustain after carefully checking facts, considering alternatives, and eliminating contrary evidence over time, but it permits that such checking be distributed across an epistemic community and transmitted by reliable testimony. Synchronic justification (at a time) can be weak, one might have a snapshot of evidence that gives a belief a veneer of credibility. Diachronic adequacy insists that the credibility be resilient: it would not be overturned by normal evidence-uptake within Δ .

This condition is cognate with defeasibility (no undefeated defeaters) and with anti-luck “safety”, but it explicitly ties those ideas to a temporal and context-sensitive standard. If a person’s belief is true only because they stopped at a lucky moment, then within Δ ordinary inquiry would surface an accessible defeater; hence the diachronic condition fails. Conversely, if (even counterfactually) ordinary inquiry over Δ would not uncover a defeater, the belief passes the diachronic test without demanding onerous investigation from every agent.

Let me illustrate this with our running example of Fake Barn County. Henry’s initial perceptual belief “there’s a barn” had some justification (it looked for all the world like a barn). However, this justification was extremely fragile. Had Henry paused to scan the area or check more carefully, he would have quickly encountered disconfirming signs (e.g., noticing that other “barns” in the area are façades). In fact, Henry’s belief was only justified *momentarily* and within a very limited context (a quick glance, assuming a normal environment). Assessed diachronically, within a short Δ (minutes) accessible defeaters are abundant (most structures are fakes), so his justification would not be maintainable. *Temporal stability* was lacking: his method of belief formation (single glance) was not sufficient to keep the belief justified in a broader temporal context. Therefore, Henry fails the diachronic justification condition. According to JTB + D, this explains why Henry does not know: although he had a justified true belief at t_0 , he could not have maintained justification for that belief at t_1 after a bit more reflection or evidence (indeed, at t_1 he would likely realise something is wrong, or at least he should realise it if he is being epistemically conscientious). By contrast, consider a mundane case of seeing a barn in a normal county. Jane drives by, sees a barn, and forms the belief “that’s a barn”. In an ordinary environment, Jane’s belief is true, and justified by vision. Is it diachronically justified? Yes: over a suitable Δ (minutes to hours), ordinary checks (such as further viewing, approaching, or testimony from locals) would not reveal accessible defeaters. There is no hidden ‘gotcha’ that would emerge with further investigation. Jane’s justification is *stable over time*: it never faces a defeater. Thus, Jane’s belief can qualify as knowledge on JTB + D. Henry’s and Jane’s situations are alike at the single-moment snapshot (both had a true belief justified by a glance), but differ crucially in the diachronic perspective, and that difference marks knowledge vs. non-knowledge.

One might wonder: does diachronic justification simply reduce to the earlier no-defeater condition or a variant of safety? There are affinities, but not identity. Requiring that no defeater arises is essentially what it means for the justification to hold up over time. However, (iii) builds in: (a) a temporal corridor Δ , (b) an accessibility restriction on defeaters (agent/community-relative), and (c) a maintainability reading that permits vicarious inquiry (memory/testimony), thereby avoiding over-intellectualism. In modal terms, safety says: in nearby possible scenarios, one would not easily be wrong. Diachronic adequacy says: in the actual world, across Δ and ordinary avenues of evidence-accrual, one would not easily lose one’s justification. The two are closely aligned. Diachronic justification, however, keeps the focus on the subject’s (and community’s) evidential situation rather than on abstract modal similarity alone.

This condition finds support in the long tradition that knowledge is somehow tied to *inquiry*. In the history of philosophy, knowledge has often been linked to the idea of a completed investigation or the end of doubt (Peirce’s pragmatism comes to mind, as does the Cartesian idea of reaching a stable certainty). My proposal can be seen as formalising a similar intuition in analytic terms. Socrates’s notion of a tethered true belief, mentioned earlier, could be interpreted as requiring that the belief is secured by understanding, which usually means one can explain or defend it against challenges. That inherently is a diachronic notion: you can hold onto the belief and support it in the face of why-

questions or contrary evidence. Indeed, Plato contrasts mere true opinion with knowledge by noting that the former is fleeting, here one day and gone the next, whereas knowledge stays put because one remembers and can account for why the belief is true [31]. In the present view, the “tether” is operationalised as diachronic maintainability over Δ , achieved either directly by the agent or vicariously via reliable testimonial links within an epistemic community. Diachronic justification follows this line: a belief acquired and then promptly lost (because the justification collapses) is not knowledge; knowledge implies an enduring epistemic state.

To further clarify, I shall apply the diachronic condition to classic Gettier cases. In Gettier’s Case I (Smith’s job interview, coins in pocket), Smith’s belief “the man who will get the job has ten coins in his pocket” was justified (he saw Jones count ten coins, and evidence pointed to Jones getting the job) and happened to be true (Smith himself gets the job and coincidentally has ten coins). Why is this not knowledge? Under JTB + D: because Smith’s justification was pinned to a false assumption that *Jones* would get the job. As time unfolds, the justification is not sustained: the moment the hiring decision is announced, Smith’s original basis evaporates (Jones is not hired). Even counterfactually, had ordinary inquiry been pursued within Δ (e.g., checking the basis of the rumour), the defeater would have surfaced, so the belief fails maintainability. There was a brief alignment of justification and truth, but not an enduring one.

In Gettier’s Case II (Brown in Barcelona disjunction), similarly, Smith’s evidence for “Jones owns a Ford” would have been short-lived once Jones’s car ownership is disproven. The disjunctive belief was never investigated regarding Brown’s location; it was a shot in the dark piggybacking on an eventually false belief. A diachronic justification approach would note that an adequately thorough inquiry (say, actually checking Brown’s whereabouts or confirming Jones’s car) was not done; more importantly, had it been pursued within Δ , the belief would not have been maintained unless it was true for the right reasons. Smith’s belief manages to be true, but not through a stable chain of justification rather through a coincidental fact he was not aware of.

In the Sheep-in-the-Field case, the farmer’s belief “There is a sheep in the field” would not survive continued looking if he walked closer (he would see the disguised dog), until he possibly spots the real sheep by accident. But crucially, his original justification (seeing a woolly shape) was undermined by a closer look. So, at no continuous stretch was his belief reliably grounded; instead, he would have to switch the basis of justification mid-course (from the fake sheep to the real sheep) in a way that involves luck. Diachronic justification demands a steadier support: one that does not rely on a hidden false presupposition.

A frequent objection says: take any Gettier case and stipulate that no further evidence ever becomes available; then the belief would trivially remain “justified”. In (iii), maintainability is assessed relative to Δ beginning at formation and to what would have been accessible had ordinary inquiry been pursued then (by *S* or *S*’s community). The subsequent disappearance of evidence does not sanitise an originally fragile position. If a defeater was accessible in the immediate aftermath, the belief fails diachronic adequacy even if, later, evidence is lost. Conversely, where no accessible defeater exists in context (e.g., deeply private past events remembered accurately), the absence of new evidence does not itself defeat knowledge.

From these examples, one can see how JTB + D rules out Gettier cases in ordinary environments. In every Gettier case, something is *rotten in the state of justification*, some hidden rot that time and further evidence would reveal. (iii) simply states that if there is such rot accessible within Δ , the belief does not count as knowledge. The belief must be able to weather the storm of new information.

A helpful way to frame this is: *knowledge requires that the truth of the belief is not ephemeral relative to the justification across Δ* . If a subject's belief is true at t_0 but a small change or new fact at t_1 would make it unjustified or false, then at t_0 the subject did not truly know; they were just lucky. Temporal continuity of justification, operationalised by Δ and the accessible-defeater constraint, ensures that what the subject believes tracks the truth not just in a single instant, but across the evidential interval appropriate to the context.

6. Advantages of the Diachronic Condition

The diachronic justification condition offers several advantages, addressing both the Gettier problem and further epistemological concerns: it provides an anti-luck filter calibrated to time, via the Δ corridor introduced above; it integrates internalist and externalist insights by focusing on maintainability of justification under ordinary avenues of evidence-accrual; and it preserves fallibilism while clarifying “knowledge timing”.

6.1. Anti-Luck Solidification

As discussed, it directly attacks the element of epistemic luck. By ensuring that justification is not transient, it is far less likely that a true belief is a lucky coincidence. In Fake Barn County, the luck was tied to timing and place; Henry's one glimpse happened to hit a real barn. In the diachronic reading, within a short Δ (minutes), accessible defeaters (e.g., observation that most structures are façades) would surface under ordinary checking; hence the belief's justification is not maintainable and fails the condition. This aligns with Pritchard's [25] observation that knowledge excludes those cases where truth is a matter of luck or accident diachronic adequacy implements that anti-luck idea by requiring resilient justification across Δ .

It is instructive to connect this with modal conditions again. Sensitivity and safety were also anti-luck filters, but they operate counterfactually. Diachronic adequacy operates in the temporal actual world. One might say that if a belief is not safe, there is typically a temporally realisable sequence of ordinary checks (within Δ) by which it would lose its justification; conversely, if a belief is safe, one would expect ongoing inquiry within Δ not to overturn it. Thus, diachronic justification and safety should often coincide in their verdicts. The difference is that diachronic justification places more emphasis on the *process* of knowing (it invites us to consider knowing as something one maintains under ordinary avenues of evidence-accrual, not just a static condition satisfied at an instant). This procedural emphasis resonates with scientific and everyday practices: we do not consider a hypothesis confirmed if it only passed one quick test. We increase our confidence when it survives repeated testing and scrutiny over time. Knowledge, arguably, is similar: it is a state achieved when a belief has *proven itself* robust in the face of potential challenges. Δ makes explicit how long that robustness must hold in context.

6.2. Integrating Internalist and Externalist Insights

The JTB + D model sits at a crossroads of internalist and externalist epistemology. Rather than demanding “heroic” active checking by every agent, the condition requires that the agent's justification be maintainable across Δ under the ordinary avenues of evidence-accrual available in their context (including vicarious acquisition via memory and testimony). In Henry's case, an externalist might simply note his belief was formed by a normally reliable process (vision) but happened to be unreliable in that context. An internalist would note Henry had no clue of the unreliability. JTB + D requires that the subject's epistemic position be such that routine checking (by the subject or their competent community) would not quickly uncover an accessible defeater. This ‘responsiveness without over-intellectualism’ also accommodates infants, animals, and epistemically passive

agents. What matters is that their belief be sustained by a reliable evidential pipeline (e.g., caretakers' testimony, stable perceptual dispositions, communal practices) that would surface accessible defeaters within Δ if such defeaters existed. One could say that knowledge is an achievement of a truth-directed agent or their properly functioning epistemic environment, and not a happy accident. Requiring diachronic justification enshrines this: it ensures that knowers have perspective on their belief over an appropriate interval, not just a reflex that happened to fire correctly.

6.3. *Rebutting the Sceptic and Embracing Fallibilism*

An interesting facet of diachronic justification is that it remains fallibilist but in a controlled way. I do not demand that justification entail truth (which would be infallibilism). Mistakes can happen; initial evidence can mislead. But the idea is that through time and checking, one weeds out the mistakes. Thus, my model can allow that one temporarily has a justified belief that turns out false (which is common), but one will (or should) discard it and thus fail to count as knowledge at any point if it is false. One only counts as knowing once one's evidence has stabilised on the truth. In JTB + D terms, knowledge at time t requires that (counterfactually) ordinary inquiry over Δ beginning at t would not surface an accessible undefeated defeater; when such a defeater is about to surface, knowledge is not yet present at t . In practice, this is what we often think: for many empirical matters, we refine our beliefs until we get it right. In this view, "knowledge timing" is indexed to Δ : if at 9 a.m. your belief would be defeated by ordinary checks available by 10 a.m., you did not know at 9 a.m.; if by noon those checks have been addressed and no accessible defeater remains within the ensuing Δ , knowledge is then in place. This view handles a tricky problem: knowledge timing. If justification is defeasible, at what point in time does a person know or cease to know? By requiring an interval of justification, we lean toward the view that knowledge is not an instant-on/instant-off switch but something that can be lost or gained as evidence changes. This makes explicit how sceptical "what if the next moment you are deceived?" worries interact with Δ . If such deception would arise under ordinary inquiry within Δ , knowledge was not present; if it would not, knowledge can be present despite fallibility. This aligns with a fallibilist, corrigible picture of knowledge as opposed to an infallibilist one.

6.4. *Illustrative Example Revisited*

Let me use the example to highlight these advantages in a narrative. Imagine Henry, after driving through Fake Barn County, tells a friend: "I know there was a real barn on that road". The friend is aware of the fake-barn trick and challenges Henry: "Are you sure? Most of those barns are façades. Did you stop to verify it was real?" Henry admits he did not. In light of this new information, Henry realises his justification was inadequate; he retracts his certainty. Under JTB + D, Henry never really knew it was a barn, because his belief was not justified across Δ ; the moment his inquiry extended (even by hearing the challenge), his justification failed. Now consider if Henry had stopped the car, walked up to the structure, banged on its solid wooden walls, walked around it (noting it is 3-dimensional and not a prop), perhaps even entered it to see hay inside. At that point, Henry's belief "this is a barn" has survived serious potential defeaters (he has essentially ruled out the façade possibility). His justification is now far stronger and more durable. If in fact it is a barn (it is), his belief is true and one would be much more inclined to say Henry knows it is a barn. What changed is the diachronic aspect: initial quick perception vs. sustained checking. Knowledge in everyday contexts often correlates with how much effort and cross-checking we have done: *onus probandi*. The diachronic condition codifies this: the more a belief's justification is tested and upheld, the more it counts as knowledge.

7. Potential Criticisms and Rejoinders

Is JTB + D too demanding? One might object that requiring temporal justification sets the bar for knowledge unreasonably high. After all, we commonly say we know things without constantly re-checking them or without having exhaustively investigated. Do I not know my keys are on the table just because I did not stare at them for an hour to ensure they do not disappear? This concern can be answered by clarifying that *adequate investigation* is context-dependent and need not mean infinite or overzealous checking. Diachronic justification does not mean one must *literally* spend a long time on every belief; it means that one's justification would be maintainable over Δ (a context-sensitive corridor) such that it is not fleeting. In normal environments, a single clear look at the table is enough; no accessible defeater is expected to surface in the immediate Δ , so your justification remains as good a minute later as it was initially. The belief "My keys are on the table" will remain true and justified so long as no one moves them (and if someone were about to, you would lose knowledge at that moment but not before). So, in everyday stable situations, our condition collapses to something very close to the standard conception: you know p if your evidence for p is good and nothing accessible happens to undermine it. The condition mainly has teeth in unusual or high-risk scenarios, precisely where our intuitions about knowledge become cautious (e.g., magic shows, deceiving environments, lottery-like setups). In those cases, it is appropriate that we hesitate to ascribe knowledge ("I *think* I saw the magician's assistant in the box, but I'm not sure, it could be a trick."). Our view naturally explains this: your justification is not diachronically strong in a magic show context because you expect there might be a trick (an accessible defeater) if you looked more closely.

In short, JTB + D does not entail an infinite regress of checking or an impossibly high standard; it requires that no crucial stones were left unturned that *should* have been, given Δ for the context. It dovetails with the idea of a responsible epistemic agent who does not ignore obvious avenues of inquiry. Crucially, "maintenance" can proceed vicariously via memory and testimony, so infants, animals, or non-specialists can know without performing sophisticated inquiries themselves. It is also consistent with fallible knowledge: you can know something yet still lose that knowledge later if a defeater arises (we often say "I thought I knew, but I was wrong" when new evidence appears, implying one had knowledge *until* the point of defeat). JTB + D neatly captures that dynamic: knowledge lasts as long as justification would hold across Δ . This is a feature, not a bug, since it reflects the fluid nature of human knowledge.

Is JTB + D just defeasibility in temporal dress? Another criticism, very well, might be: how is this different from, say, defeasibility theory or the requirement of no undefeated defeaters [20]? Are we not just restating that in temporal language? There is a close connection, admittedly. However, one distinction is emphasis. Traditional defeasibility accounts are formulated as a negative condition (no defeater exists). The diachronic condition is more positive and process-oriented: it requires that justification be maintainable over a finite interval Δ under ordinary avenues of evidence-accrual, with defeaters restricted to the accessible ones in the agent's (or community's) context. Additionally, by framing it as "justified over time", we integrate it into the concept of justification itself rather than tacking on an external no-defeater clause. We might say that in JTB + D, the justification condition (iii) is implicitly strengthened: only a *diachronically adequate* justification counts for knowledge. In fact, some epistemologists like Roderick Chisholm attempted to strengthen justification in similar spirit, e.g., by upping the standards of justification to exclude lucky truths [2,15]. Our approach can be viewed as a specific way to strengthen justification: make it diachronically stringent in a parameterised, context-sensitive way (via Δ).

One might also ask how JTB + D relates to reliabilism (the view that knowledge is true belief produced by a reliable process). Diachronic justification shares reliabilism's goal of

truth-conduciveness but keeps the focus on the subject's perspective. Where a reliabilist might say "vision in normal conditions is reliable, hence Henry's belief is produced by a usually reliable process (though unbeknownst to him it was unreliable in that county), tricky, what do we say?", the diachronic approach says "Henry's one-off vision was not a *complete* process of inquiry; an augmented process (vision + cross-check) would be reliable, and that is what knowledge demands in that context.". So in a sense JTB + D can complement reliabilism: it suggests that the *process* that yields knowledge must not just be reliable in general, but sustained enough to manifest its reliability across Δ . A momentary process can appear reliable but be undermined by unusual circumstances; a slightly prolonged or repeated process can reveal those circumstances. Thus, diachronic justification might be seen as enforcing that the cognitive process spans a sufficient temporal breadth to ensure reliability. In Henry's case, the visual process needed just a bit more breadth (looking twice or around) to be reliable. Because he did not do that, his belief, while produced by a normally reliable faculty, failed in that specific context, and he did not take steps to detect the failure.

I must also consider whether a crafty opponent could devise a new Gettier case even for JTB + D. Suppose one tries Zagzebski's recipe on my condition: *Take a case of a belief that is justified over time but false, then arrange for it to be true by luck*. Is that plausible? If a belief is continuously justified over time, it means the subject keeps checking and all indications support the belief, yet the belief is false. This scenario is approaching an *infallibility* contradiction. Fully general Gettier immunity is not claimed. Still, constructing counterexamples against JTB + D typically requires diachronically justified yet false bases with no accessible defeaters over Δ or exotic world-changes—scenarios that are structurally costly and far from ordinary epistemic contexts. The condition therefore raises the bar for Gettierisation while remaining fallibilist.

Bottom line is, while no analysis is completely unassailable, adding a diachronic requirement (via Δ and accessible-defeater constraints) makes the concept of knowledge more resilient against luck. It capitalises on the intuition that knowledge is "sticky" across the evidential interval that matters for the context. By building that stickiness into the justification condition, JTB + D offers a principled way to capture what knowledge is meant to be: well-founded true belief, grounded in understanding that lasts across Δ .

8. Conclusions

The traditional tripartite definition of justified true belief has long been under siege from Gettier-style counterexamples, which reveal its insufficiency. In defending a revised JTB + D model, understood here as strengthening the J-condition with a diachronic constraint rather than offering a wholly sufficient analysis, I have argued that the missing ingredient is an explicit temporal dimension of justification. Knowledge is not merely about having a reason to believe something true; it is about having a reason that remains (or would remain) epistemically responsive over an appropriate interval *and* stands the test of time and inquiry. By requiring diachronic justification, parameterised by a context-sensitive corridor Δ and restricted to accessible defeaters, one filters out cases where truth and justification only accidentally coincide in ordinary environments. My proposal engages directly with standard objections to JTB, notably the need to mitigate luck, and does so in a way that bridges internalist and externalist insights. We saw that many prior attempts (no false lemmas, defeasibility, sensitivity, safety) were groping towards this same goal of stability and anti-luck, and in the present view the diachronic constraint should be read as strengthening the J-condition (JTB + D), not as an entirely independent fourth box: knowledge requires justification that is diachronically adequate and maintainable across Δ with no accessible undefeated defeaters.

I illustrated the effect of this condition using the Fake Barn County example, among others, repeatedly showing how a belief that fails to be diachronically justified falls short of knowledge, whereas a belief that meets this condition avoids the epistemic luck that troubled the tripartite account. In doing so, I also responded to potential criticisms, clarifying that the condition does not demand heroic, continuous checking by every individual but does require enough (actual or counterfactual, including vicarious) investigation via memory and testimony within Δ to rule out relevant mistakes. It honours the spirit of Socrates's notion that knowledge must be tethered by something more than momentary insight, and it meets the challenge of Gettier by ensuring that tether is diachronically secure and not easily snapped by a trick of fate. Importantly, diachronic adequacy is a standard of responsive stability, not mere inertia or habituation as long-held beliefs fail if accessible defeaters are ignored.

I, of course, do not claim that JTB + D is the final word or a guaranteed Gettier-proof analysis; epistemology is nothing if not aware of its own fallibility. But I argue that diachronic justification is a *necessary* condition for knowledge. Ignoring the diachronic aspect leaves any JTB + X theory vulnerable to cases where justification and truth only align transiently. By incorporating a diachronic requirement, made explicit by Δ and the accessible-defeater restriction, we make explicit a commitment to knowledge as an enduring state, one earned through sustained rationality (individual or communal), and in principle capable of withstanding new challenges. This moves the analysis of knowledge closer to capturing the intuitive difference between *genuine knowledge* and mere lucky belief: the former has a firm foothold in reality across the interval that matters for the context (Δ), whereas the latter is perched on a moment that could easily crumble.

In the conceptual landscape of contemporary analytic epistemology, defending any variation of the JTB analysis is ambitious. Yet I (hope I) have offered a reasoned defence of JTB + D diachronic constraint, addressing classic objections and showing how it can rebut them in ordinary environments. Such a move undoubtedly invites further scholarly exploration. In particular, future work should: formalise Δ and calibrate the accessibility of defeaters, trace the condition's interaction with testimonial and memorial justification (including infants'/animals' knowledge and social epistemic pipelines), and locate JTB + D within broader anti-luck and virtue-epistemology frameworks (e.g., intellectual perseverance and conscientious monitoring) without over-intellectualism. These tasks would refine the parameterisation and extend the account's explanatory reach.

For now, though, I conclude that a Justified True Belief with a Diachronic Justification model represents a viable and attractive necessary constraint on knowledge-apt justification. It preserves the classical insight that knowledge involves believing the truth for good reasons, while amending it to require that those reasons be good enough to be non-transient across Δ . If epistemologists at large seek a proposal that navigates between the plethora of Gettier's challenges and the hardship of radical scepticism or abandonment of analysis, JTB + D's diachronic adequacy is a candidate worth serious consideration. It tells us that to *know* is, in a sense, to know reliably, not just in the externalist sense, but in the sense of having a belief that has proven (or would prove) itself resilient over the appropriate interval Δ . And that, arguably, is what we have been seeking all along; a principled, parameterised constraint on knowledge that raises the bar against ordinary epistemic luck while retaining fallible human justification.

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