Hedonic Adaptation and the Persistence of Suffering: A Model-Based Approach to Theodicy

Diaz Sanchez, Jose Luis

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Jose Luis Diaz Sanchez*

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Abstract

Hedonic adaptation—the tendency to return to a baseline level of well-being after changes in life circumstances—offers a new perspective on theodicy, the attempt to reconcile suffering with a benevolent, omnipotent, and omniscient God. Since perceived suffering tends to revert to baseline, reductions in actual suffering may provide only temporary relief. This paper develops a simplified theoretical model, drawing on economic methods, to analyze how perceived suffering evolves over time, whether adjusting adaptation speeds could reduce distress, and what this reveals about the normative limits of benevolent intervention. The model demonstrates a structural trade-off: while slower adaptation may extend relief, it can also intensify distress during hardship. These dynamics lend support to soul-making theodicies by showing how persistent suffering fosters resilience and moral growth, and they echo free will theodicies by portraying adaptation as a built-in human feature, shaped by evolutionary pressures. At the same time, it challenges interventionist theodicies by emphasizing that suffering may persist despite benevolent efforts. It thereby invites greater attention to the recurrence of suffering, not only its intensity, as a concern for theodical reflection.

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Keywords: Hedonic adaptation; perceived suffering; philosophy of religion; economic modeling; normative constraints.

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Non-Technical Summary

Why Does Suffering Persist? Hedonic Adaptation and Theodicy

Why does suffering persist, even in a world governed by an all-powerful, all-knowing, and benevolent God? Many religious and philosophical traditions attempt to answer this question through theodicies—arguments that seek to justify the existence of suffering under such a deity. This paper introduces hedonic adaptation as a key psychological mechanism that may help explain why suffering endures, even when temporarily eased by external interventions.

What is Hedonic Adaptation?

Hedonic adaptation is a psychological phenomenon in which people gradually return to a baseline level of well-being after experiencing changes in their circumstances. For example, after recovering from illness or experiencing relief following social exclusion or injustice, the initial improvement in well-being often fades as individuals readjust to these new conditions. This suggests that relief from suffering may be short-lived: people tend to return to a baseline level of distress even after external conditions improve.

How Does This Affect Theodicy?

Hedonic adaptation challenges interventionist theodicies, which assume that divine action can permanently reduce suffering. If emotional distress naturally re-emerges, even well-intentioned interventions to reduce suffering may yield only temporary comfort. This raises a difficult question: if suffering inevitably recurs, can divine intervention truly be effective? At the same time, hedonic adaptation lends support to other well-established theodicies. The soul-making theodicy holds that suffering is essential for moral and spiritual growth. Because adaptation ensures that suffering endures, it may serve a necessary role in cultivating resilience and perseverance. Similarly, the free will theodicy views suffering as a consequence of human freedom. Just as restricting free will would alter human nature, fundamentally modifying hedonic

adaptation, which evolved as a mechanism to promote survival, could disrupt the psychological foundations of human experience.

What About Extreme Suffering?

Many have argued that some forms of suffering (such as genocides or major natural disasters) are excessive and difficult to reconcile with the idea of a benevolent God. Yet hedonic adaptation offers a different perspective: even if such extreme suffering were eliminated, people might still return to a baseline level of distress due to their psychological tendency to adapt. This implies that reducing the severity of suffering may not fundamentally alter the long-term human experience of distress. As a result, suffering's persistence. not just its intensity, may be theologically relevant.

A Theoretical Model of Suffering

To explore these ideas more rigorously, the paper develops a simplified formal model inspired by economic research on adaptation and subjective well-being. The model distinguishes between actual suffering (such as illness, injury, or violence) and perceived suffering (how these conditions are experienced psychologically over time). Its central mechanism is that even after actual suffering decreases, perceived suffering gradually returns to a baseline—reflecting the process of hedonic adaptation. It also evaluates whether divine intervention could reduce suffering by adjusting the speed of adaptation. While slower adaptation might extend relief, it may also prolong perceived suffering when individuals face hardship.

Conclusion

Hedonic adaptation offers a psychological lens through which to understand why suffering may persist, even when it is temporarily alleviated. Instead of displacing traditional theodicies, it adds a new dimension, highlighting not just why suffering arises, but why it tends to recur. This perspective invites renewed reflection on the enduring nature of suffering and the limits of benevolent intervention.

1 Introduction

Hedonic adaptation, the psychological tendency for individuals to return to a baseline level of well-being following changes in life circumstances (Brickman and Campbell, 1971), implies that improvements in external conditions, such as recovery from illness or the resolution of hardship, often provide only temporary relief. Over time, perceived suffering, defined as the subjective experience of distress, tends to revert to its prior level. This raises important questions for theodicy, the attempt to reconcile the existence of suffering with the idea of a omnibenevolent, omnicient, and all-powerful God—a problem first systematically addressed by Leibniz (1710) and later developed in contemporary critiques, such as Rowe (1979). If suffering naturally re-emerges even after it is initially alleviated, then its persistence may not reflect a lack of divine action or intent, but rather a structural constraint rooted in human psychology.

This dynamic introduces a new dimension to traditional theodicies. If perceived suffering inevitably returns to baseline, then divine efforts to alleviate it may yield only temporary relief. Still, a benevolent agent might attempt to reduce the cumulative burden of distress by slowing the rate of adaptation. Yet, this involves trade-offs: slower adaptation may prolong negative experiences, potentially intensifying perceived suffering during hardship. Rather than being absent or indifferent, divine intervention may be constrained by structural features of human psychology, limits that shape not only how suffering is experienced, but also why it tends to recur.

Many authors have argued that moral evil (suffering caused by human actions such as violence, injustice, or cruelty) and natural evil (suffering caused by impersonal forces like disease or natural disasters) can reach levels that are excessive and gratuitous, a concern that lies at the heart of several philosophical critiques of theodicy (see, e.g., Rowe, 1979; Trakakis, 2007; Pihlström, 2013, and Dostoyevsky [1880] for a literary articulation).[1]Hedonic adaptation adds a different perspective

[1]Trakakis (2007) introduces the notion of "horrendous evils" as experiences so profoundly destructive that they seem to strip life of meaning, casting doubt on whether any divine justification could be morally sufficient. Pihlström (2013) advances an anti-theodical stance, contending that traditional theodicies often violate moral norms by attempting to rationalize extreme forms of suffering, particularly those that seem to defy meaningful justification in ethical or human terms.

by suggesting that not only the severity but also the persistence of suffering may be theologically relevant. Even if extreme suffering is reduced or prevented, thus lowering its immediate emotional burden, the long-term human experience of suffering may remain relatively constant, as perceived distress gradually returns to its baseline. From this perspective, moderate suffering may eventually be experienced with similar intensity as the more severe suffering it replaced.

On one hand, hedonic adaptation reinforces certain theodicies by offering both a psychological and evolutionary perspective on the persistence of suffering. Soul-making theodicy contends that suffering is essential for moral and spiritual growth (Hick, 1966). Hedonic adaptation strengthens this view by ensuring that suffering endures long enough for individuals to develop resilience, perseverance, and emotional strength, traits that allow people to recover from adversity while cultivating virtue. From an evolutionary standpoint, this persistence can be seen as a survival mechanism: by maintaining responsiveness to challenges, hedonic adaptation fosters ongoing effort, vigilance, and adaptability (Nesse and Williams, 1994). Free will theodicy argues that moral evil arises from human freedom, and that restricting this freedom would fundamentally alter human agency (Plantinga, 1974). Just as free will places moral limits on divine action, hedonic adaptation may set cognitive boundaries by regulating well-being through evolved psychological processes. On this view, both are intrinsic features of human nature that constrain the scope of benevolent intervention. On the other hand, hedonic adaptation challenges interventionist theodicies, which assume that divine actions can meaningfully and permanently alleviate suffering (Swinburne, 1998). If perceived suffering inevitably reverts to baseline, then even benevolent interventions may yield only transient emotional relief. Rather than denying divine action, this perspective suggests that its lasting impact may be structurally limited by the very psychological processes through which relief is experienced.

This paper explores the role of hedonic adaptation as both a complement to and a challenge for traditional theodicies, focusing on the persistence of suffering even in the context of divine intervention, and the trade-offs involved in managing perceived suffering. The analysis is limited to suffering and divine action in earthly life and does not engage with theodicies that appeal to post-mortem compensation or eschatological fulfillment (Hick, 1976), which address the problem of suffering

by situating divine justice beyond the temporal human experience.

To formalize the implications of hedonic adaptation for theodical debates, the paper develops a simplified theoretical model inspired by Rayo and Becker (2007) and Clark, Frijters, and Shields (2008), whose economic frameworks were designed to explain the Easterlin Paradox—the observation that long-term increases in income do not lead to sustained improvements in subjective well-being. The model illustrates how reductions in actual suffering (external hardships) provide only temporary relief due to hedonic adaptation and examines how the speed of adaptation influences perceived suffering. Through a divine suffering-minimization objective function, the model evaluates the trade-offs of slowing adaptation, which may prolong relief but also intensify suffering during adversity. This structure parallels models in welfare economics where well-being depends not only on external conditions but also on internal mechanisms such as diminishing marginal utility, reference points, or adaptation, with this paper focusing specifically on the latter.[2] While utilitarian in form, the model is not intended as a normative claim, but as a tool to clarify structural constraints that hedonic adaptation may impose on benevolent intervention. Formal models are not uncommon in theodical debates, but the use of dynamic economic frameworks remains relatively underexplored. This paper appears to be among the first to apply such a model to theodicy, alongside work by Parro (2021), who uses a principal-agent framework to examine theodicy through the lens of optimal incentive design. By formalizing the role of hedonic adaptation, the framework clarifies trade-offs that are central to theodical debates, complementing philosophical analysis by making these tensions analytically explicit.

The paper proceeds as follows. Section 2 provides a brief overview of the literature on hedonic adaptation across various scientific disciplines. Section 3 presents the theoretical framework and discusses the model's implications. Section 4 concludes.

[2]See Hausman and McPherson (2009) for an overview of how internal features of utility functions affect normative claims in welfare theory.

2 Hedonic Adaptation and the Limits of Relief: Insights from Across Disciplines

Hedonic adaptation has been extensively studied across disciplines, offering unique insights into its mechanisms and implications.

In behavioral economics, Kahneman and Tversky (1979) introduced prospect theory, which suggests that individuals exhibit diminishing sensitivity to gains and losses, a concept closely tied to hedonic adaptation. This theory helps explain why changes in external conditions, such as financial improvements, often have only temporary effects on well-being. The Easterlin Paradox (Easterlin, 1974) illustrates this dynamic, showing that long-term increases in income do not necessarily yield sustained gains in happiness. Easterlin attributed this to shifting aspirations and relative comparisons, mechanisms later formalized by Clark, Frijters, and Shields (2008) and Rayo and Becker (2007), and empirically supported in applied work by Graham (2011), among others.[3]

Empirical neuroscientific research also provides insights into the mechanisms underlying hedonic adaptation. Schultz (1998) found that the brain's reward system responds strongly to unexpected rewards, but this response diminishes as the reward becomes predictable, suggesting a neural basis for reduced sensitivity to sustained positive stimuli. In psychology, Brickman and Campbell (1971) and later Frederick and Loewenstein (1999) documented how individuals adapt emotionally to major life events (such as marriage, divorce, or health changes) eventually returning to their baseline affective state. From an evolutionary psychology perspective, hedonic adaptation is seen as an adaptive mechanism that enhances survival by allowing individuals to remain focused on new challenges rather than dwelling on past experiences. Nesse and Williams (1994) argue that this rapid return to baseline helps individuals conserve cognitive and emotional resources, enabling them to respond effectively to future threats or opportunities.

While hedonic adaptation is often studied at the individual level, some research explores its broader social dimensions. Diener and Seligman (2004) argue that major societal events (such as economic crises

[3]This finding has been challenged by studies such as Stevenson and Wolfers (2008), who report that higher income levels are consistently associated with greater happiness across countries.

or political transitions) can influence national well-being but often fail to produce lasting changes in overall life satisfaction. Just as individuals adapt to personal changes, societies may exhibit collective patterns of hedonic adaptation, with national well-being indicators tending to stabilize over time despite external shocks. This highlights the potential limits of external interventions, as economic or political reforms may influence short-term happiness but do not always lead to lasting changes in overall well-being.

Together, this multidisciplinary body of literature underscores the significance of hedonic adaptation in understanding the persistence of perceived suffering.

3 Dynamic Model of Suffering and Hedonic Adaptation

To better understand the persistence of suffering through the lens of hedonic adaptation and its implications for theodicy, this section develops a simplified theoretical model inspired by Rayo and Becker (2007) and Clark, Frijters, and Shields (2008), whose frameworks were originally designed to explain the Easterlin Paradox.[4] The model developed here distinguishes between actual suffering, shaped by external circumstances, and perceived suffering, which adjusts over time through adaptation. By incorporating an adaptation rate as a central parameter, the model provides a structured approach to analyzing (i) why perceived suffering tends to revert to baseline despite reductions in actual suffering, (ii) the trade-offs involved in altering the pace of adaptation, and (iii) the theological implications of suffering's recurrence.

The analysis focuses on suffering shaped by external events (such as divine interventions addressing moral or natural evil), abstracting from internal psychological or philosophical mechanisms like Stoic discipline, Epicurean moderation of desire, comparative evaluation, or gratitude.[5]

[4]While those models incorporate both hedonic adaptation and social comparison, the present analysis focuses exclusively on adaptation.

[5]Stoic philosophy, as articulated by Marcus Aurelius in *Meditations*, emphasizes resilience through reframing adversity and distinguishing between factors within and beyond one's control (Hadot, 1998). Epicurean ethics similarly promote psychological tranquility through the moderation of desire (Letter to Menoeceus, Epicurus, trans. Inwood and Gerson, 1994). Research in psychology also shows that reducing comparative evaluations and fostering gratitude can mitigate perceived distress (Lyubomirsky and Ross, 1997).

This section is structured in two parts:

- **Section 3.1: Basic model** — Establishes the core dynamics of perceived suffering under a uniform adaptation mechanism and examines how the model responds to changes in actual suffering.
- **Section 3.2: Model extensions** — Introduces (i) asymmetric adaptation parameters, where responses to increases and decreases in suffering differ, and (ii) a mechanism to capture how suffering may contribute to moral growth and resilience.

3.1 Basic Model

The basic model describes how perceived suffering (PS_t) evolves in response to variations in actual suffering (S_t). It interprets actual suffering as experienced by a representative agent, abstracting from individual variation for analytical simplicity.[6] While suffering is a complex and multi-dimensional phenomenon, the model treats it as a scalar variable for analytical clarity. This simplification is common in welfare economics and is intended to capture average perceived distress rather than its full phenomenological texture.

Actual suffering evolves according to:

$$S_t = S_{t-1} + \Delta S_t \tag{1}$$

where ΔS_t represents the net change in actual suffering, with $\Delta S_t > 0$ representing an increase in suffering, and $\Delta S_t < 0$ representing a decrease in suffering.[7]

To model how perceived suffering responds to these changes, we assume it initially reflects variations in actual suffering before gradually returning to a psychological baseline PS_0, which represents the hedonic set point. The adjustment unfolds in two steps:

- **Step 1 (initial deviation from baseline):** When actual suffering changes ($\Delta S_t \neq 0$), perceived suffering deviates from baseline by the same amount: $\epsilon_t = \Delta S_t$.

[6] While hedonic adaptation is a psychological process that operates at the individual level, the model captures its dynamics at an aggregate conceptual level without engaging distributional concerns.

[7] Because well-being and suffering are inversely related, a decrease in suffering implies improved well-being, and vice versa. The model focuses on suffering to align with theodical concerns.

- **Step 2 (adaptation toward baseline):** In periods without new changes, perceived suffering gradually reverts to baseline at a rate determined by α: $\epsilon_t = \alpha \cdot \epsilon_{t-1}$.

These dynamics can be summarized by equations (2) and (3):

$$\epsilon_t = \begin{cases} \Delta S_t, & \text{if } t \text{ marks a moment of change in actual suffering} \\ \alpha \cdot \epsilon_{t-1}, & \text{otherwise} \end{cases} \tag{2}$$

$$PS_t = PS_0 + \epsilon_t \tag{3}$$

Here, ϵ_t represents the deviation of perceived suffering from its baseline. The adaptation parameter $\alpha \in (0, 1)$ governs how quickly this deviation fades. Lower values of α imply faster reversion to baseline; higher values lead to more persistent deviations.

This structure captures the core mechanism of hedonic adaptation: perceived suffering initially responds to changes in actual suffering, then gradually returns to baseline over time. The model assumes that α is constant and symmetric—i.e., the speed of return to baseline is the same regardless of the direction or magnitude of change. While this enhances analytical tractability, it departs from empirical findings in two ways. First, adaptation rates may be asymmetric, with individuals adjusting at different rates to positive and negative events. Second, the process may be nonlinear: people may adapt more quickly to small changes than to large ones, or exhibit threshold effects and diminishing sensitivity. [8] Accordingly, the assumption of constant and symmetric adaptation should be viewed as a simplification aimed at isolating the theological implications of hedonic adaptation rather than capturing its full empirical complexity.

A benevolent agent is assumed to minimize the cumulative burden of perceived suffering over time by acting on actual suffering, which in turn influences perception through adaptation:

[8] Some studies indicate, for example, that individuals may adapt more quickly to certain positive life events than to negative ones, though this pattern is not universal and varies across circumstances. Brickman, Coates, and Janoff-Bulman (1978) found that lottery winners reported only temporary increases in happiness, suggesting rapid adaptation to positive shocks. In contrast, Lucas et al. (2003, 2007) show that negative events such as unemployment, divorce, or widowhood often lead to slower or incomplete adaptation. The extent and duration of adaptation appear to depend on the type of life event, individual differences, and contextual factors.

$$\text{Minimize: } J_1 = \sum_{t=1}^{T} PS_t^2 \tag{4}$$

This focus reflects the moral view, central to negative utilitarianism, that reducing distress is a primary objective (Smart and Williams, 1973). The squared form reflects the disproportionate weight assigned to intense suffering, consistent with the moral intuition that extreme suffering warrants greater urgency. However, as hedonic adaptation gradually returns perceived suffering to baseline, this prioritization loses potency over time, reinforcing the idea that persistence (not just intensity) may be theologically relevant.

I. Illustrating the Model: The Basic Case

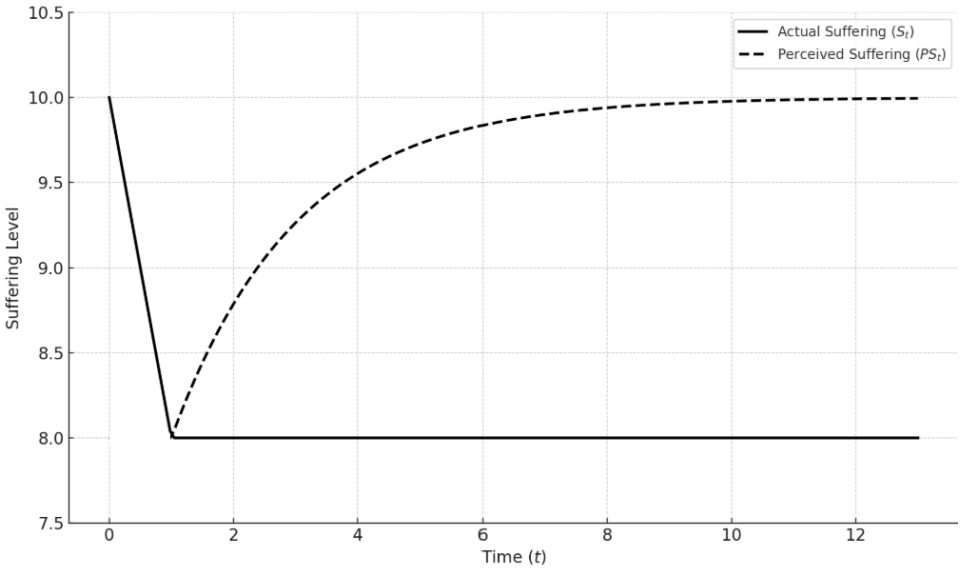
This section presents a simple numerical simulation to illustrate the model's dynamics following a reduction in actual suffering ($\Delta S_t < 0$). The simulation begins with initial values $S_0 = PS_0 = 10$, and applies a reduction of 2 units at $t = 1$. The initial level of 10 is intended to represent the current global level of actual suffering, a state in which episodes of extreme suffering remain frequent, even amid periods of relative stability. In this framework, values in the range of 9–10 signal that extreme suffering remains present in the world. Conversely, a reduction in actual suffering to 8 can be interpreted as a full elimination of extreme suffering. This setup allows us to examine how meaningful improvements in actual suffering affect perceived suffering over time.

The adaptation parameter is set at $\alpha = 0.4$, which governs the speed at which perceived suffering returns to its baseline PS_0. Under this model, the immediate effect of a change in actual suffering is fully transmitted to perceived suffering in the same period, with the deviation from baseline (denoted ϵ_t) subsequently decaying at a geometric rate. That is, following a 2-unit drop in actual suffering, PS_t drops by 2 units relative to baseline in that period, and then gradually returns to baseline through the decay of ϵ_t, where $\epsilon_t = \alpha \cdot \epsilon_{t-1}$.

This formulation captures the empirical intuition that people respond immediately to external improvements, but adapt over time. The simulation in Figure 1 illustrates how even meaningful improvements in actual suffering (e.g., a drop from 10 to 8) only provide temporary relief, as perceived suffering PS_t gradually returns to the original

baseline. This dynamic highlights the persistent influence of hedonic adaptation, which limits the long-term emotional benefits of external improvements.

Figure 1: Perceived Suffering Dynamics After Decrease in Actual Suffering



II. Comparative Simulation: Varying Adaptation

To assess whether slowing the adaptation process can meaningfully extend relief, we compare two cases with different adaptation parameters: one with a slower rate ($\alpha = 0.8$) and one with a faster rate ($\alpha = 0.4$). These values represent possible psychological configurations that a benevolent agent might influence. Both cases begin with an initial level of actual and perceived suffering $S_0 = PS_0 = 10$, with S_0 representing the current global burden of suffering (as in the previous section). While this value reflects a long-run aggregate state, we assume that actual suffering may fluctuate around this average, rising during crises (e.g., pandemics or wars) and falling during more peaceful or prosperous periods. In our simulations, actual suffering drops temporarily in t=1 to 8 (Figure 2a) or rises to 12 (Figure 2b), allowing us to examine how perceived suffering PS_t reacts over time under different adaptation rates. For simplicity, we assume no other changes

in actual suffering occur throughout the simulation period.

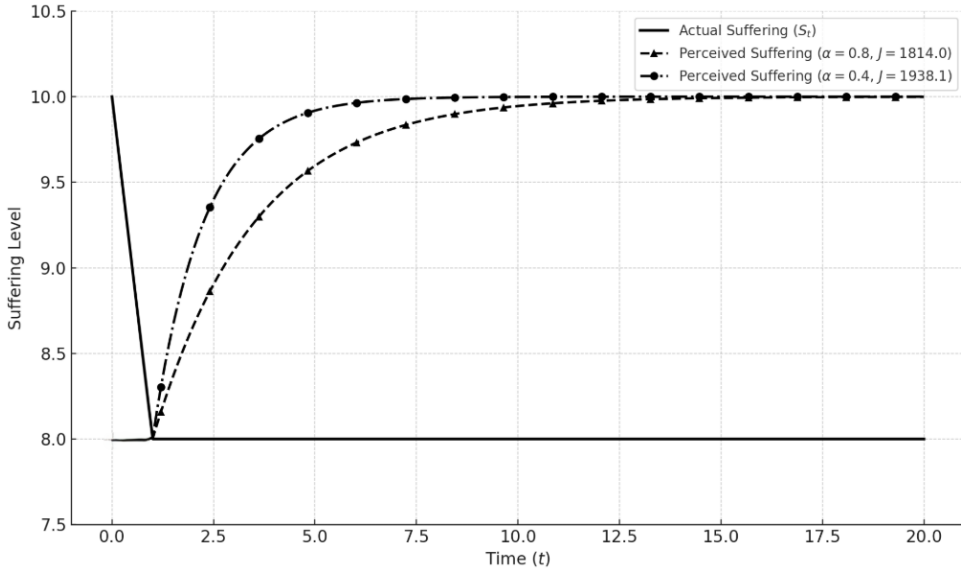
The results in Figure 2a show that the slower adaptation ($\alpha = 0.8$) does prolong perceived relief following a reduction in actual suffering, delaying the return of PS_t to its baseline, compared with the faster rate ($\alpha = 0.4$). However, as illustrated in Figure 2b, the same slower adaptation also extends the emotional impact of increases in actual suffering. When averaging across the impacts of the decrease and increase in actual suffering (Figure 2a and 2b, respectively), the total perceived suffering over time, measured by the objective function $J = \sum PS_t^2$, remains nearly unchanged across adaptation settings.[9] This suggests that slowing adaptation offers no meaningful net benefit: while it extends emotional relief after positive events, it also deepens distress after negative ones, producing an almost identical cumulative burden of suffering. Theologically, this highlights a key implication of the model: divine efforts to prolong comfort through hedonic mechanisms encounter inherent psychological trade-offs, as the same process that sustains relief also magnifies pain.

While the basic model captures the core dynamics of hedonic adaptation, it abstracts from important features such as asymmetric responses and potential developmental benefits of suffering.

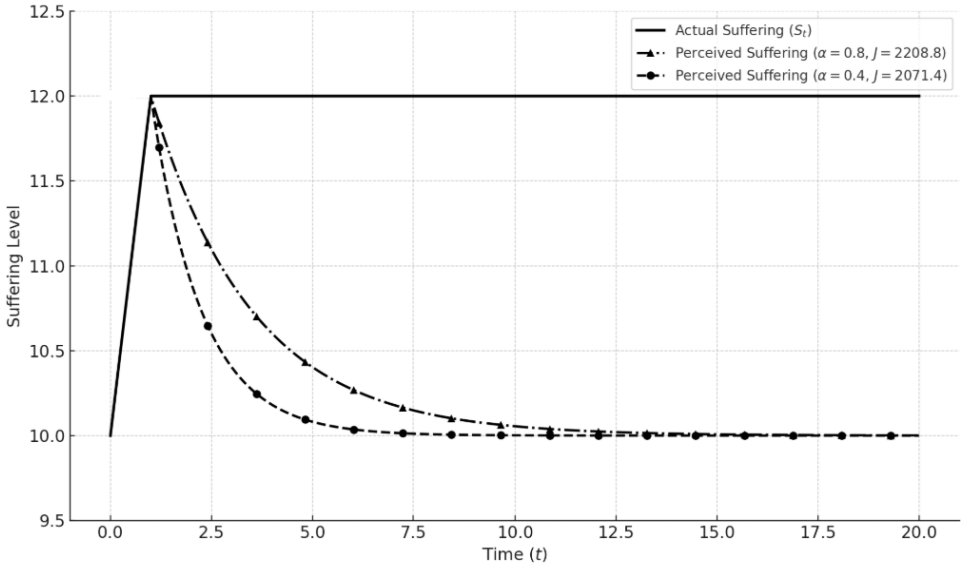
[9] $J = 4022.8$ (1814.0 + 2208.8) for $\alpha = 0.8$ and $J = 4009.5$ (1938.1 + 2071.4) for $\alpha = 0.4$, equivalent to about 0.3 percent difference between scenarios.

Figure 2: Comparative Dynamics of Perceived Suffering Following Changes in Actual Suffering: Slower vs. Faster Adaptation.

(a) Decrease in Actual Suffering



(b) Increase in Actual Suffering



3.2 Model Extensions

I. Model with Asymmetric Adaptation Parameters

Here we introduce asymmetric adaptation parameters in the model to allow for the possibility that adaptation to increases and decreases in suffering occurs at different rates. Specifically, we assume that adaptation is slower for negative changes ($\Delta S_t < 0$, reductions in suffering) and faster for positive changes ($\Delta S_t > 0$, increases in suffering). Under this assumption, the dynamics of perceived suffering evolve as follows:

$$\epsilon_t = \begin{cases} \Delta S_t, & \text{if } t \text{ marks a moment of change in actual suffering} \\ \alpha^- \cdot \epsilon_{t-1}, & \text{if } \epsilon_{t-1} > 0 \text{ (adjusting to an increase)} \\ \alpha^+ \cdot \epsilon_{t-1}, & \text{if } \epsilon_{t-1} < 0 \text{ (adjusting to a decrease)} \end{cases} \tag{5}$$

where $\alpha^+ > \alpha^-$, implying:

- **Slower adaptation** to reductions in suffering (α^+)
- **Faster adaptation** to increases in suffering (α^-)

Perceived suffering continues to follow the same structure as in the basic model, namely, $PS_t = PS_0 + \epsilon_t$ (Equation 3), but the adaptation process that determines ϵ_t is now direction-dependent.

The objective function remains:

$$\text{Minimize: } J_2 = \sum_{t=1}^{T} PS_t^2 \tag{6}$$

where PS_t evolves with direction-dependent adaptation rates: α^- when suffering increases and α^+ when it decreases. This modification thus allows for directional flexibility in the adaptation process and typically results in a more favorable perceived suffering trajectory when increases are quickly attenuated while relief is allowed to persist longer.

Assuming that the constant adaptation parameter in the symmetric model lies between the asymmetric parameters—i.e., $\alpha^+ > \alpha > \alpha^-$—and the series of changes to suffering is symmetric in both magnitude and direction, the objective function (J_2) (under asymmetric

adaptation) will typically yield a lower cumulative perceived suffering than the objective function (J_1) (under symmetric adaptation). This is because the asymmetric model combines faster adjustment to worsening conditions with slower adaptation to improvements, resulting in a more favorable trajectory of perceived suffering.

This asymmetric extension of the model adds nuance by allowing adaptation rates to vary depending on whether suffering is increasing or decreasing. This directional flexibility enables a more favorable trajectory of perceived suffering: faster adjustment during worsening conditions helps contain distress, while slower adaptation to relief preserves its benefits for longer. Unlike the symmetric model, this structure reduces the trade-off between prolonged relief and intensified adversity, offering a more effective way to manage perceived suffering without amplifying the emotional weight of negative experiences.

However, even under asymmetric adaptation, reductions in perceived suffering are temporary, as distress ultimately returns to baseline.

II. Model with Positive Effects of Suffering

To incorporate the developmental and existential benefits of suffering, we introduce a term $\Phi(PS_t)$, which represents the aggregate benefits that comes with suffering such as moral growth and spiritual development.[10] These benefits are proportional to PS_t and inversely related to the adaptation speed (α):

$$\Phi(PS_t, \alpha) = (PS_t - PS_0) \cdot (1 - \alpha) \tag{7}$$

The revised objective function balances minimizing perceived suffering with recognizing its positive contributions:

$$\text{Minimize: } J_3 = \sum_{t=1}^{T} \left(PS_t^2 - \gamma \cdot \Phi(PS_t, \alpha) \right) \tag{8}$$

[10]Free will is another possible good associated with suffering. While it is not shaped by adaptation dynamics per se, it plays a central role in many theodicies, which argue that the existence of moral evil is a necessary consequence of granting individuals the freedom to choose, even when that freedom entails the possibility of causing suffering.

where $\gamma > 0$ reflects the relative importance assigned to the benefits of suffering. This model introduces a trade-off: faster adaptation reduces PS_t, but it may also diminish the benefits derived from suffering.

By incorporating the potential value of suffering, this extension reframes the problem from minimizing distress alone to balancing distress against its possible developmental contributions, recognizing that slower adaptation may intensify the burden of suffering but also deepen its moral significance.

4 Conclusion

This paper has examined how hedonic adaptation interacts with traditional theodicies. By combining psychological and theological perspectives, supported by an economic-style framework, it offers a way to understand why perceived suffering may endure even when it is temporarily alleviated. Hedonic adaptation reinforces soul-making theodicies by ensuring that suffering persists long enough to foster resilience and moral growth, while also complicating interventionist views that assume divine action can produce lasting relief. Rather than attributing the endurance of suffering solely to divine purpose or moral failure, this account suggests it may also reflect a built-in feature of human psychology—one that may itself be shaped by evolutionary pressures. Like free will, hedonic adaptation may represent an inherent aspect of human nature that limits the scope for benevolent intervention. Efforts to modify adaptation to extend relief may involve difficult trade-offs, potentially prolonging distress during adversity. By focusing on the recurrence of suffering over time, this perspective invites attention not only to the severity of suffering in extreme cases, but also to its persistence as a morally and theologically significant phenomenon.

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