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Did the Oracles of Delphi Shape the Tragedies? On the Economics of Predictive Processing

Farzad. Goli

MD., Danesh-e Tandorosti Institute, Isfahan, Iran; Behi Academy, Vancouver, Canada.

Corresponding author email address:
farzad.goli@ijbmc.org

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ABSTRACT

Although predicting the future is a fundamental cognitive capacity that enables humans to plan and adapt to their environment, under certain conditions it can shift from a cognitive tool to a powerful force shaping perception, emotion, behavior, and real-life outcomes. This conceptual article analytically examines the role of future-oriented predictions, expectations, and beliefs in the formation of self-fulfilling cycles, anxiety, and psychosomatic consequences. Drawing on the concept of the self-fulfilling prophecy, predictive processing theory, the free-energy principle, and research on confirmation bias, the article argues that humans do not merely predict the future; through attention, interpretation, and action, they may actively help construct the futures they anticipate. When a threatening prediction is accepted with excessive certainty, it can narrow the range of perceived possibilities and organize perception, physiological responses, and protective behaviors around that anticipated outcome. In the domain of mental health and medicine, this process becomes evident through heightened health anxiety, increased attention to bodily sensations, nocebo responses, and the amplification of psychosomatic distress. The article emphasizes that the central challenge is not eliminating prediction and foresight, but developing flexible anticipation, calibrating certainty appropriately, and staying open to revising future assumptions. Predictions should therefore be understood as probabilistic hypotheses rather than fixed verdicts, incorporating evidence, limitations, and constructive pathways for action. This perspective provides a novel framework for understanding the relationship between future-oriented cognition, anxiety, human behavior, and mental health in an era increasingly shaped by predictive technologies and continuous information flows. Importantly, this article presents a theoretical synthesis rather than an empirical model, and its proposed relationships should be understood as conceptual pathways that require further experimental and clinical investigation.

Keywords: Future prediction, Self-fulfilling prophecy, Anxiety, Predictive processing, Mental health, Nocebo effect.

The Self-Fulfilling Nature of Future Expectations

A prophecy may begin as a compassionate warning about tomorrow and end as a dangerous command for life. From Oedipus's tragedy to somatic symptom amplification, the futures we obsessively fear can alter attention, physiology, and action—and quietly recruit us into making them real. The most unsettling question in "Oedipus Rex" is not whether the oracle told the truth. It is whether the prophecy would ever have come true had it not been spoken—or had nobody treated it as an instruction.

When warned by an oracle that his son will kill him, King Laius orders the infant's feet to be pierced and leaves the child to die on a mountainside. The boy survives, is adopted in Corinth, and grows up believing the Corinthian king and queen are his real parents. Years later, Oedipus hears another oracle: he is destined to kill his father and marry his mother. Horrified, he leaves Corinth to spare the people he loves, and on the way he quarrels with and kills a stranger—Laius. Arriving in Thebes, he marries its widowed queen—Jocasta—and completes the prophecy by taking the steps he had taken to avoid it.

The oracle is not limited to predicting the future. It becomes part of the sequence of events. While Laius's fear keeps father and son apart, Oedipus's fear drives him to the fatal fork in the path. Every attempt to prevent the expected future removes a safeguard that may have prevented it.

Sophocles is not a lesson on contemporary psychology, and this does not settle the age-old conflict between fate and freedom. However, the play presents a very contemporary possibility: that sometimes what we refer to as fate is actually a feared future that has recruited our bodies, attention, and actions to bring it to pass. The Oedipus tale is not presented here as psychological proof or as a description of human behavior. Instead, it is a metaphor for a recurrent psychological process: contemporary psychology theories provide the empirical frameworks for examining how anticipated futures can influence attention, interpretation, behavior, and decision-making.

When prophecy enters the causal network

Another variation is Croesus. When he consults the oracle Delphi and asks if he should attack Persia, the oracle tells him that he will destroy a great empire if he crosses the Halys River. Desire has made Croesus ready to hear what he hears. He invades and ravages his own huge kingdom. Here the event is not merely one of fear, but of ambition that projects its ideal future on the indeterminacy of the prophecy. Fear or passionate desire may lead people to give confusing facts excessive specificity, creating the illusion of clarity that ends research rather than clarifying misunderstanding (Clark, 2013; Nickerson, 1998).

These tales demonstrate how expected futures gain causal power in at least two different ways. While an ambiguous message can be selectively taken as confirmation of what one already fears or wishes, a feared or wanted event can elicit actions that increase its likelihood.

The realm of self-fulfilling prophecy

Merton (1948) gave the first mechanism its enduring name. A self-fulfilling prophecy begins, he argued, with a false definition of a situation that evokes behavior through which the false belief becomes true. His famous example was a solvent bank destroyed by rumors of insolvency. Depositors, convinced that it will fail, rush to withdraw their money, thereby causing its failure.

This is not supernatural in any way. Not every event we envision is magically brought about by our expectations. They do alter probabilities, in fact. They change what we see, how we perceive uncertainty, who we trust, the risks we take, the things we avoid, and how other people react to us. When a forecast modifies the system it purports to explain, it becomes consequential.

The need for assurance is especially high in the wake of a worldwide epidemic, economic and climate crises, the swift development of artificial intelligence, and the imminence of significant conflicts. Popular futurology, fortune-telling, and forecasting all offer somewhat comprehensible futures. Nevertheless, the data does not demonstrate a clear rise in belief: Astrology belief has been somewhat consistent since 2017, with 30% of US adults seeking out astrology, tarot, or fortune tellers at least once a year (Rotolo, 2025). Even more broadly, existential danger and uncertainty avoidance are linked to higher conspiracy views; yet, these beliefs do not always lessen anxiety and may even make it worse (Liekefett et al., 2023).

More importantly, social media and large language models (LLMs) can industrialize the production and distribution of forecasts. Engagement-driven feeds increase moralized, emotional, and toxic content (Brady et al., 2026; Milli et al., 2025); repeated human–AI interaction can magnify small biases (Glickman & Sharot, 2025); and users often overestimate LLM accuracy, especially when answers include elaborate explanations (Steyvers et al., 2025).

These findings do not demonstrate that algorithms are always to blame for disasters. However, they identify ways in which digital systems could function as modern-day Delphic oracles, influencing actions that help create the futures they appear to just predict. Importantly, evidence-based, customized AI interactions reduced conspiracy theories by about 20% over the course of two months, demonstrating that the same persuasive power can also be corrective (Costello et al., 2024).

The structure is recursive: the outcome is interpreted as evidence that the prediction was accurate; expectation guides attention and action; action modifies the environment. We forget that the forecast contributed to the creation of its own proof by the end of the cycle.

When every road leads back to Delphi

Peter Wason's experiments showed how readily people seek evidence that confirms a hypothesis rather than evidence that could disprove it. Subsequent research has shown that confirmation bias operates through selective attention, memory, information seeking, and interpretation (Nickerson, 1998; Wason, 1960).

A delayed response appears to constitute rejection once we anticipate betrayal. An usual shift in pulse becomes concerning once we anticipate cardiac illness. Every argument seems to be the first step toward collapse whenever a society starts to anticipate chaos. Evidence that supports the forecast is striking and memorable, whereas evidence that does not support it is written off as an anomaly, a reprieve, or another concealment.

Thus, the person experiencing anxiety is not merely contemplating a danger. Through a query that is fashioned like a threat, the person is sampling the world. And the evidence we consistently discover depends on the questions we ask.

The loop becomes challenging to break when confirmation bias combines with self-fulfilling action: a threat belief narrows attention, which in turn provides confirmatory evidence. Confirmatory evidence then justifies defensive action, which in turn causes new tension, symptoms, or conflict. These outcomes seem to support the initial belief. The range of potential futures may gradually contract as a result of the pursuit of certainty.

Behavioral economics and the economy of expectations

Economists have known for a long time that expectations are not passive views of the future. They are forces in the system. Purchasing, wage demands and prices are affected by inflation expectations. Fear of bank failure can lead to a run. The prediction of a recession can cut consumption and investment, thereby helping to cause one. Optimism can create a bubble that appears to explain its early success.

Behavioral economics adds a key caveat: these expectations are not formed by perfectly rational calculators. They are shaped by loss aversion, framing, availability, anchoring, social imitation, and the outsized weight of vivid possibilities. Even unlikely, a dramatic catastrophe can swamp judgment. The more we hear the same warning, the more it can come to seem true – just because it is familiar.

The economy of expectations is therefore also an economy of attention. Whatever a person, institution, media system, or government repeatedly depicts as the future begins to receive present investments of emotion, money, bodily energy, and political action. A forecast is never only information. It can also intervene in the system it forecasts.

This is why the ethics of prediction cannot end with the question, 'Is it accurate?' We must also ask: How is it framed? How often is it repeated? Does it enlarge agency or merely intensify vigilance? Which actions does it invite? Which alternatives does it make harder to imagine?

The predictive brain

Predictive-processing theories help explain why prophecy-like effects run so deep. Andy Clark (2013) describes the brain not as a passive receiver waiting for the world to announce itself, but as a prediction-generating organ. Perception arises through an ongoing exchange between top-down expectations and bottom-

up sensory signals. The brain anticipates the causes of its sensations and revises its model when prediction errors demand revision (Clark, 2013).

It is incorrect to view predictive processing as implying that predictions alone are the source of all psychological experiences. Instead, it offers a framework for comprehending how incoming sensory data interacts with preexisting expectations, particularly when uncertainty, emotional salience, or danger perception rise.

This picture is expanded by the active inference framework and Karl Friston's free-energy principle. In addition to altering their beliefs, living systems also lessen uncertainty by acting in a way that makes the sensory environment more in line with their expectations. Sometimes we act upon the world, or selectively sample it, to make it match the model, and other times we update the model to fit the world. (Friston, 2010).

The crux of the curse of foresight lies in this disparity. A prediction can be "fulfilled" either actively when conduct contributes to the generation of the anticipated evidence or perceptually when ambiguous evidence is perceived in its favor. Precision—the degree to which a past view is trusted in light of new information—matters in both situations. A preliminary forecast may be adjusted. If a threat prediction is given too much accuracy, it may ignore safety signals and focus perception, physiology, and behavior on danger.

The curse of foreknowledge revolves around this dichotomy. A prediction might be actively "fulfilled" when conduct contributes to the production of the anticipated evidence, or it can be "fulfilled" perceptually when ambiguous evidence is read in its favor. Precision—the degree to which a past opinion is trusted in relation to new information — matters in both situations. It is possible to make corrections to a preliminary prediction. When a threat prediction is given too much accuracy, it may ignore safety signals and focus perception, physiology, and behavior on danger.

Oedipus can be reread in these terms. The oracle becomes a prior with absolute precision. It cannot be questioned; it can only be obeyed or escaped. Avoidance replaces inquiry. The range of possible actions contracts. The future is not allowed to remain open long enough for a different future to be made.

Anticipation itself is not the enemy. No organism could survive without it. The danger begins when one imagined future becomes so emotionally charged and so certain that alternative futures can no longer be perceived, tested, or enacted.

Anxiety: the body living ahead of time

Anxiety is usually described as excessive fear. It may also be understood as a troubled relationship with the future: repeated threat prediction, heightened uncertainty, and protective action initiated before danger has been adequately established. The body begins to live inside an event that has not happened.

This process is particularly evident when one has health worry. The way the body samples sensations is altered by a catastrophic expectation. Heart rate, respiration, lightheadedness, exhaustion, pain, or stomach movement are all amplified by attention. That menacing anticipation is used to analyze ambiguous interoceptive signals. Then, further feelings that appear to validate it are produced by autonomic arousal. The system may be temporarily calmed by reassurance, but repeated checks can teach it that there was risk and that checking was required.

These symptoms are not imaginary. Expectations can influence pain, autonomic regulation, adherence, avoidance, and help-seeking. Through nocebo processes, information about treatment, prior experiences, and the therapeutic context can contribute to genuine symptoms and suffering (Colloca & Barsky, 2020). Meaning does not float above biology; it participates in biological regulation (Seth & Friston, 2016).

Crucially, expectation-based mechanisms do not suggest that symptoms are simply psychological or fictitious. Instead, expectations can affect the perception, interpretation, and regulation of physiological signals. Biological states, cognitive interpretations, emotional reactions, and environmental elements interact dynamically in psychosomatic processes.

This was the central concern of the chapter ‘How to Prescribe Information: Health Education Without Health Anxiety and Nocebo Effects’ in Biosemiotic Medicine: Healing in the World of Meaning (Goli, 2016). Medical information, just like medication, has indications, dosage, timing, context, and adverse effects. Risk information that heightens vigilance without

strengthening agency can inadvertently amplify symptoms, anxiety, unnecessary investigation, avoidance, and nocebo responses.

According to recent nocebo research, treatment experiences and symptom perception may be influenced by negative expectations, contextual signals, and communication processes. The ethical implication, however, is to enhance the quality, framing, and personalization of health communication rather than to decrease transparency. Risk information should prevent needless amplification of threat perception while maintaining informed decision-making.

A thorough list of potential adverse effects can both fulfilll a formal duty of disclosure and provide the patient with a model for identifying common feelings as pathology. Public health alerts can increase background anxiety while increasing awareness. While self-tracking can encourage self-care, it can also make the body an endless source of questionable information. Every pocket now has a tiny Delphic temple thanks to social media, wearables, symptom checkers, and search engines.

The contemporary economy of foreboding

A portion of our mental health crisis stems from a crisis in the creation and dissemination of futures. Climate catastrophe, war, pandemics, unemployment, technological displacement, cancer risk, political breakdown, and social isolation are just a few of the constant warnings that surround us today. Many of these risks are actual. It is not the same as advocating denial or complacency to question catastrophizing.

But a culture can become so invested in warning that it loses the ability to distinguish responsible foresight from the industrial production of dread. Engagement-based feeds can preferentially amplify moral outrage, divisive material, and toxic content (Brady et al., 2026; Milli et al., 2025). Political actors mobilize support through feared futures, while markets fluctuate according to stories about what others will expect. Conversational AI adds a new capacity for personalized persuasion: controlled experiments show that LLMs can tailor arguments effectively, and that techniques that increase political persuasiveness may also reduce factual accuracy (Hackenburg et al., 2025; Salvi et al., 2025). Under these conditions, anticipation becomes a scarce and contested resource.

Predictive technologies, however, are not intrinsically dangerous. AI systems can facilitate uncertainty management, provide access to evidence-based information, and assist people in making more flexible decisions when they are developed publicly and applied appropriately. Therefore, the conditions under which forecasts are made, shared, and implemented—rather than the predictions themselves — are the ethical dilemma.

We require an economics of anticipation in addition to behavioral economics: a methodical explanation of how future-oriented pictures are created, disseminated, magnified, and monetized—and how they guide current investments in attention, emotion, physiology, money, and group action.

In such an economy, questions would be raised about who gains from a forecast, what behavior it elicits, whether it increases competent action or helpless vigilance, whether it maintains revisability or asserts Delphic certainty, and what psychosomatic costs result from forcing people to live in constant danger beforehand.

Learning to budget predictive precision — that is, giving serious, actionable dangers the attention they deserve without letting every conceivable disaster take over the present—may be crucial to mental health in the twenty-first century.

Engineered futures

Political and economic players may not necessarily wait for expectations to emerge spontaneously; they may purposefully construct them. Withdrawals that bankrupt a solvent bank can be triggered by a rumor of bank bankruptcy. When a trader secretly holds an asset and forecasts a sharp increase in value, they may recruit buyers, wait as their purchases validate the prediction, and then sell before the item collapses. Inflation warnings have the potential to accelerate wage and price demands, push purchases forward, and exacerbate the inflation they seem to just predict. Prediction turns into an intervention in these situations, and occasionally it becomes a covert tactic for power or financial gain.

In politics, the same reflexive reasoning is used. One state may equip itself, make alliances, or advance troops

along the border if it consistently characterizes another as inherently hostile. These protective actions are perceived by the opposing side as hostility, and they retaliate accordingly. The reaction is then presented as evidence that the first prediction was accurate. This is the security conundrum: actions done to avert an anticipated future conflict may increase the likelihood of such conflict (Jervis, 1978).

Not every expectation management strategy is deceptive. Forecasts are released by public health organizations to promote preparation, and central banks publicly use forward guidance to influence current actions. Transparency, proof, proclaimed interests, proportionality, and whether the audience gets informed agency or is secretly coerced into delivering a result that benefits the forecaster are where the ethical differences lie.

From prophecy to economics of prediction

The lesson from Oedipus is not that we should reject risk awareness. Laius and Oedipus fail because they give one prophecy the power of fate rather than because they have too much knowledge. They act without thought, yet with urgency. Instead of developing a more intelligent relationship with uncertainty, they strive to eradicate it.

A different perspective is necessary for healthy foresight. Forecasts must continue to be theories rather than conclusions. Multiple scenarios should be included in serious planning, and contradicting evidence should be aggressively sought after. Communication of risks should be reasonable and accompanied with unambiguous agency. When prescribing medical information, consideration should be given to context, timeliness, and the recipient's ability to use it. In addition to being an overwhelming feeling, anxiety should be viewed as a rigid method to dealing with unknown futures.

Positive thinking is not a substitute for catastrophic forecasting. Additionally, optimistic forecasts have the potential to skew perception and encourage careless behavior. Flexible anticipation is what we need: the ability to envision danger without entering it too soon, to prepare without practicing disaster as inevitability, and to adjust our predictions in light of fresh information. It is possible that foresight itself was not Delphi's greatest curse. It was the power bestowed onto one version of the future. Human activity was enlisted to fulfilll prophecy once it was deemed indisputable.

Toward an Ethics of Flexible Anticipation

Developing flexible anticipation rather than doing away with prediction is the main psychological problem. For the purpose of planning, self-defense, and adaptation, humans need future-oriented cognition. Predictions that integrate perception, emotion, and behavior around a single envisioned future and become unflexible beliefs that are difficult to update are problematic. Maintaining uncertainty tolerance, revising beliefs when new information becomes available, and turning predictions into proactive action rather than defensive avoidance are all necessary for flexible anticipation.

Predictive processes should not be viewed as exclusively cognitive phenomena from a body-mind-culture approach. Expectations are embodied experiences that are influenced by cultural narratives, interpersonal interactions, emotional states, and physiological regulation. Instead of encountering future possibilities as separate brains, people use socially shared meanings like disease, success, risk, vulnerability, and identity to understand uncertainty. Attention, body awareness, coping mechanisms, and behavioral patterns are all impacted by these cultural predictions.

Flexible anticipation requires three capacities: maintaining uncertainty tolerance, updating beliefs when new evidence emerges, and transforming predictions into constructive action rather than defensive avoidance.

The following principles offer a practical framework for healthier prediction and should be incorporated into public culture and media content to help recognize and prevent prediction-related risk factors:

- Replace ‘this will happen’ with a probability, a time horizon, and the evidence on which the estimate rests.
- State the conditions under which the forecast is expected to hold and which changes would alter it.
- Present several plausible scenarios rather than allowing one imagined future to monopolize action.
- Make the data, assumptions, model, limitations, and major sources of error visible.

- Specify in advance what evidence would weaken, refute, or require revision of the forecast.
- Examine the forecaster's records. Evaluate the accuracy and reliability of all previous predictions, not just the influential ones.
- Ask what the forecaster gains if the audience buys, sells, votes, fears, withdraws, or submits.
- Consider how publishing the forecast may itself change the system and the probability of the predicted outcome.
- Pair risk information with proportionate, practical action. Warning without agency often produces vigilance and helplessness rather than preparedness.
- Evaluate information not only for truth, but also for dose, timing, context, framing, and possible nocebo effects.

Conclusion

The psychological issue of the contemporary predictive era is to prevent forecasts, expectations, and imagined futures from becoming unflexible orders rather than to eliminate them. When they assist us in planning, thinking, and making informed judgments, predictions are beneficial. They are detrimental if they limit our perspective, increase our fear, and dictate our actions without exercising critical thought. In a world that is becoming more and more focused on the future, knowing how prediction, cognition, the body, and culture interact may provide a helpful foundation for promoting psychological adaptability and wellbeing.

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