

Of Heptapods and Human Bondage: Spinoza and Ted Chiang's *Story of Your Life*

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Dedicated to Professor Don Garrett and to my students in American Science Fiction

Although my education has centered on the pursuit of degrees in media studies, history, and literature, I have always managed to squeeze some philosophy courses in on the side. My interest in sampling the philosophy department's curricular offerings has stemmed partly from a lifelong fascination with questions of ethics, ontology and metaphysics, but also from the fact that the study of philosophy can greatly enrich one's understanding of and appreciation for other subjects in the humanities. Both of those factors have played a role in my reading and teaching of Ted Chiang's *Stories of Your Life and Others*, especially its titular novella, *Story of Your Life*, which is the text that I focus on in this piece. A work of great beauty and insight, this tale addresses perennial philosophical questions in ways that are both ambiguous and profound. In what follows, I discuss how my experience of this story has been informed by an earlier engagement with the ideas of the seventeenth-century Dutch philosopher Baruch Spinoza, whose work made a huge impression on me when I first encountered it in graduate school. After discussing some of the personal and intellectual dimensions of my linked experience of these works, I reflect on the ways in which the story's philosophical implications have informed my conversations with students in a course that I teach for the department of American Studies at Skidmore, called American Science Fiction. To do this, I will need to delve into the story's major events, so reader be warned that there are PLOT SPOILERS ahead.

Before getting to the story, I need to unpack the content of one of those philosophy courses that I took on the side. During my first semester of coursework at NYU, I had the good fortune to take a course on the major works of Spinoza, [an inaugural figure in the emergence of modern European rationalism, naturalism, and secularism](#) during the run-up to the [Enlightenment](#) of the eighteenth century. The course was taught by Don Garrett, a leading Spinoza expert and all-around wonderful professor whose deep knowledge of the philosopher's challenging work greatly assisted my efforts to understand it. Chief among the texts that we read was Spinoza's *Ethics*, a five-part magnum opus that uses an unconventionally geometric style of presentation—[with axioms and propositions building off of and referring backwards to each other in complex weaves of logical interconnection](#)—to take strong positions on major philosophical questions. The topics that Spinoza addresses throughout the text include the nature of God, the metaphysical structure of reality, the operations of cause and effect, the relationship of mind to physical matter, and—most importantly for current concerns—the question of free will. For reasons that will be made clear below, Spinoza's stances on these topics are extremely relevant to *Story of Your Life*.

If it were possible to cram *The Ethic's* arguments into a nutshell, they would go something like this (warning: PHILOSOPHICAL SPOILERS IMMEDIATELY AHEAD): all of reality is made up of an underlying substance that takes multiple forms (or “modifications”, as Spinoza called them) via its manifestation in individual phenomena. This underlying substance appears

to humans in two ways: as physically extended stuff in space (i.e. matter) and as thoughts in consciousness, which in Spinoza's definition of them include all mental phenomena, including sensation and emotions. Because they're made of the same underlying stuff, the movements of mind and matter—meaning the chains of cause and effect that determine how thought and physical causation unfold—are paired to each other, running on correlated, parallel tracks. As such, they are spread throughout all of reality at varying levels of complexity. In practical terms, this means that thoughts and physical processes correspond to one another, and everything that exists has both a physical and mental mode of being. As a staunch mechanist, Spinoza held that the movements of matter and mind are completely automatic in nature, operating according to strictly determined principles of cause and effect that leave no wiggle room for randomness, free choice, or otherwise undetermined action. In terms of their upshot for human existence, these arguments entail the consequence that we are radically unfree, both in our bodies and in our minds. Every physical action that we carry out, every thought that passes through our heads, every decision that we (seem) to make is predetermined by rigidly inflexible causal processes over which we have no personal control.¹

One of the things that stands out about Spinoza's arguments is the frankness with which they make disturbing claims about the nature of human existence. Some commentators have in fact noted a resemblance between Spinoza's ideas and the motifs of horror fiction. The late philosopher Mark Fisher, for example, used images such as [inhuman alien forces](#) and "[tortured mammal meat](#)" to characterize Spinoza's portrait of human beings, noting our resemblance in his thinking to zombie-puppets pulled inexorably through the world by causal strings of blind, mechanical predestination. Yet in the final books of *The Ethics*, Spinoza goes on to argue that freedom and joy are both possible within the framework of his mechanistic philosophy and to outline a practical model for achieving them.² In these later books, he maintains that, because our thoughts and feelings follow predetermined rules, we can develop an understanding of

¹ The metaphysical arguments of the *Ethics* are advanced mostly in Parts I and II of the work. In a further outrage to seventeenth-century sensibilities, Spinoza argues in Part I (entitled "Of God") that God is identical with the substance that makes up all of nature, thereby denying the existence of a transcendent, supernatural creator along with the existence of free will. Though *The Ethics* itself was not published until shortly after his death, Spinoza did not shy away from expressing his ideas out loud, and his willingness to do so was the main reason that he was officially excommunicated from the Jewish congregation of Amsterdam at the age of twenty-three and reviled in print by public intellectuals up to a century after his death. They are also the reason that he is considered a seminal important figure in modern European intellectual history, a herald of secularism and the Enlightenment whose life and work exemplify profound [intellectual courage](#).

² Book IV, "Of Human Bondage, Or the Strength of the Emotions," advances a mechanistic model of human psychology that accounts for the tendency to get mired in negative emotions. Book V, "Of the Power of the Understanding, Or of Human Freedom," puts forth an account of how the intellect can be used to overcome these tendencies in favor of joyful affects.

their workings and thereby gain a measure of control over them. Specifically, by understanding the causes of sorrow and anger, we can diminish their influence over our minds, and by understanding the roots of joy and love, we can increase their presence in our lives.³ Beyond the understanding of individual feelings, this path requires a surrender to the universal operations of causal laws and a willful acceptance of everything we cannot control, making it a variety of modern Stoicism. One should note, however, that the question as to whether someone ever achieves this joyfully accepting state or remains mired in sorrowful passions is itself entirely determined by processes outside an individual's control. If the idea of studying and controlling your own emotions never occurs to you, or if you are never lucky enough to read Spinoza's advice on the matter, there is nothing, in his version of reality, that you could have done about it. That's just how the cosmic cookie of blindly mechanical causal processes crumbled for you.

For those reasons, there is something simultaneously hopeful and disturbing about Spinoza's ideas, a dissonance stemming from their mixed implications about agency and determination. At the most fundamental level, we are not free, but we can gain a measure of relative or contextual freedom by studying the causes of human bondage and adjusting our thoughts and behavior accordingly. On the cast iron nature of this determinism, I should point out that there are reasons to take the arguments with a grain of salt. Even back when I was having my mind bent by their implications in Professor Garrett's course, I knew there were grounds to doubt some of Spinoza's hard-and-fast claims about the mechanically determined nature of all existence. Since his time, physicists have discovered weird forms of quantum indeterminacy at the smaller scales of particulate matter that do not support the mechanistic tenets of seventeenth-century natural philosophy, and the implications of these discoveries for everything that goes on at the human scale-- from cause and effect, to the relationship of consciousness to physical processes, to the number of universes that exist, to the age old question of free will— [are still entirely unclear](#).⁴ On top of that, Spinoza's status as a foundational thinker of the European Enlightenment comes prepackaged with all the academic doubts concerning the blind spots and reductive violence of modern reason that have emerged over the past several decades. These include questions about the ways in which the Enlightenment has been complicit with the history of Western imperialism and colonialism,⁵ as

³ One of the methods for accomplishing this end is letting go of things that have caused us pain, which is why the Hollywood film adaptation of *The Story of Your Life*, aka *Arrival*, is not discussed in this piece.

⁴ For an interesting and well-directed pop cultural take on quantum ambiguities that resonates strongly with both Spinoza's ideas and *Story of Your Life*, see Alex Garland's recent Hulu miniseries [DEVS](#).

⁵ The field of postcolonial studies has been very influential on this front, particularly the work of Gayatri Spivak. If you are interested in postcolonial critiques of Western imperialist reason, a good text to start with is her seminal essay "Can the Subaltern Speak?"

well as a widespread contemporary skepticism of philosophies that presume the authority to provide totalizing models of reality.⁶

With those legitimate reasons for doubt having been acknowledged, I'm going to jump back to the naïve aspect of my first encounter with Spinoza, as it involved some personal experiences whose intellectual and emotional tenor I would later recall when reading *Story of Your Life*. Throughout my course with Professor Garrett, there was something in Spinoza's double-edged vision of a relentlessly deterministic yet mind-and-feeling-saturated universe that got inside my head, affecting my thoughts, emotions, and relationship to the things around me. It was autumn at the time, and I vividly remember how the change of the seasons served as a perfect environmental object lesson on Spinoza's conception of cause and effect. Often during that semester, when my ability to focus on the contents of the books that I was reading for course work yielded to a seemingly insurmountable case of fried brain, I would strap on my running shoes and take a jog around the suburban neighborhood in north Jersey where I was then living. Over successive runs through the same loop, the increasing coldness of the air, the change in the color and eventual fall of the leaves, and the seasonal disappearance of insect life all presented themselves to my awareness as outgrowths of irreversible, mechanical processes whose physically vibrant displays (matter) were accompanied by a trans-personally pervasive beauty and melancholy (mind). I would feel my body moving through the loop of its motions, ask myself whether I was deliberately controlling these actions, and would frequently feel that I was not. My movements, repetitive as they were, seemed automatic, like they weren't dependent on the free decisions of a conscious agent. When this happened, it felt as if I were indeed a kind of puppet being pulled through my run by the same invisible strings that were causing the changes that I could see and feel around me. As a first-year graduate student, I was in one of those transitional phases that lent itself to reflection on the past and future, and for that reason, this predestined puppet feeling, no doubt bolstered by the inherent power of autumn to make us think about time, extended itself beyond the temporal confines my run, spreading itself out across the span of my existence, enveloping the known past and unknown future in a life-enveloping wash of mechanistic fate. In properly Spinozan fashion, there was something simultaneously affirmative and disturbing about this experience, an awareness of forces that I could never hope to fully control exercising their irresistible power over my being, combined with the feeling that there were still some things I could do to bring joy into my life. The colors, the cold, the thoughts, the feelings—the delis selling lotto tickets, submarine sandwiches and cannolis—it all got mixed together in this synesthetic way that, in my memory,

⁶ Two influential books that exhibit this skepticism are Theodor Adorno and Max Horkheimer's *Dialectic of Enlightenment* and Jean-François Lyotard's *The Postmodern Condition: A Report on Knowledge*. (I should disclaim, however, that neither they nor the Spivak essay mentioned in the previous footnote are what one would call "light summer reading.") In his book, *Radical Enlightenment: Philosophy and the Making of Modernity* (which is written in a relatively accessible style), the intellectual historian Jonathan Israel has attempted to insulate Spinoza from contemporary academic critiques of the Enlightenment, [but this approach has had some rather outspoken detractors](#).

will always evoke the spirit of Spinoza. At the same time, I took it all with a grain of salt, refusing to commit unconditionally to the import of these grad student jogger epiphanies.

That's what brings me to *Story of Your Life*, a text whose science fictional premise, thematic import and emotional tonalities of all bear signs of Spinozan thinking and the kind of experiences that it can induce. (NOTE: this is where the SPOILERS really begin.) To demonstrate this resonance, let's review the story's basic plot: throughout the novella, our first-person narrator, a brilliant linguist named Louise, interweaves her telling of the story of her daughter's life with an account of her consciousness-transforming encounter with alien visitors to Earth, the latter of whom are called heptapods because they have seven legs. Louise addresses the reader as the daughter, using the second person ("you") to put us in her place, and tells the daughter's story in the future tense, as if it is yet to happen. In contrast, her account of the encounter with the heptapods is related in the past tense, implying that it has already occurred. The story, which progresses through alternating scenes involving the daughter and the aliens, eventually makes clear that the two tenses in which it is told are narratively justified and, as such, causally related. It turns out that, in learning how to read the heptapods' written language—a task to which she assigned by the US military as part of their efforts to communicate with the aliens— Louise's mind was imprinted by their way of thinking and experiencing the world, which entails a different relationship to time than that in which humans partake. Instead of experiencing time as a linear chain in which the past is known, the future is yet to occur, and known causes precede uncertain effects, the heptapods experience time as a simultaneous continuum on which they are located at a specific point, and in which the relationship of cause to effect is known in advance and perceived as predetermined. In other words, the heptapods are aware of future events to the same extent that they are aware of the past. For that reason, they perceive the future as inevitable, and have no power to change the course of events as they unfold. The point of their lives, as Louise explains it, is to actualize outcomes that they see coming in advance. By becoming fluent in their writing system, she absorbs this ability to see the future, obtaining foreknowledge of everything that will happen to her throughout the remainder of her life. Thus, due to her past (tense) encounter with the heptapods, she can tell the future (tense) story of her daughter's life, doing so before the daughter has even been conceived. Moreover, she can tell the *entirety* of the daughter's story because, due to the effects of the heptapods' language, she knows in advance that her daughter will die tragically in a rock-climbing accident when she is still a young adult. Like the heptapods, she ends up bringing about events of which she has foreknowledge but over which she has no control. Near the end of her story, she compares her state to that of an actor performing a role, the difference being that the performance is her own life rather than part of a fictional story. In a gesture that smacks equally of futility and affirmation, she writes the story of her daughter's life in advance, knowing that her daughter will never read it.

There are clear Spinozan resonances to the story's plot and themes, and as a nod to readers of philosophical biographies, Chiang includes a detail that reveals them to be deliberate. From the safety of their orbiting spaceships, the heptapods communicate with

humans through circular ocular devices called “looking glasses” on which their bodies and the symbols of their written language are remotely displayed. Uncoincidentally, Spinoza held a day job as a lens grinder at which he manufactured “looking glasses” such as spectacles, telescopes and microscopes for his fellow Danes.⁷ It is by communicating with the heptapods through their “looking glass” that Louise adopts a deterministic mode of awareness, just as an engagement with Spinoza’s work (which itself shows signs of having been influenced by his work on optical devices⁸) can incline a sympathetic reader towards a similar philosophical outlook. In fact, there is something about reading *The Ethics*, particularly in the gradual process of sense-making that emerges from the reader’s struggles to grasp its complexly interwoven, prismatically refractive axioms and propositions, that resembles the slow but inexorable transformation of Louise’s consciousness as she learns to read the heptapod’s language. For readers of *The Ethics*, confusion is often the initial response,⁹ but as this gives way to understanding of the strange text, many find that their view of reality has been powerfully affected by the effort.

In some ways, Louise’s transformation throughout the course of the story comprises a more extreme immersion into Spinoza’s metaphysical system than any (human authored) reading experience could ever provide. Learning the heptapods’ language gives her direct cognitive access to deterministic chains of cause and effect that, for all intents and purposes, are exactly what Spinoza describes in *The Ethics*. Her awareness of these chains is no mere philosophical intuition derived through abstract contemplation. She literally *knows* that the future will unfold in a predetermined manner. She knows what that future will be and that there is nothing she can do to change it. And, in a manner that resembles [Spinoza’s seventeenth-century version of self-help advice](#), she takes an affirmative stance in the face of this situation, seizing a certain amount of agency despite her utter lack of free will. This is driven home by a rhetorical question that she asks towards of the story, after the extent of her foreknowledge has been made clear to the reader. Discussing a hypothetical scenario in which all humans are granted the type of foreknowledge that she has obtained, she reflects:

The existence of free will meant that we [humans in general] couldn’t know the future. And we knew free will existed because we had direct experience of it. Volition was an intrinsic part of consciousness. Or was it? What if the experience of knowing the future changed a person? What if it evoked a sense of urgency, a sense of obligation to act precisely as she knew she would? (Chiang 132)

⁷ He had to do this to make ends meet in his life circumstances as a non-university affiliated independent scholar. It was job at which he made important contributions to lens design and optical science. See Steven Nadler’s biography, *Spinoza: A Life*.

⁸ For example, he authored a short scientific treatise on the phenomenon of the rainbow entitled *De Iride* or “Of Iris” (goddess of the rainbow).

⁹ A friend once told me about a European university that spreads the reading of *The Ethics* out over two and a half years, devoting a semester to each of its five parts.

Here, Louise is clearly talking in the third person about herself, particularly her (non) decision to bear a child who she knows will die young.¹⁰ Amidst the absence of “volition,” or the voluntary exercise of will, she willfully enacts what she is predestined to do and brazenly accepts what she cannot control about the outcomes. In addition to her daughter’s early death, she foresees that the child’s father will leave her and that her subsequent partner will die before she does, eventually leaving her alone in the world. But despite her foreknowledge of these inevitable losses, she goes through with everything anyway. In a manner that is also redolent of Spinoza’s life advice, her motivations for doing so are clearly based in joy and love. Throughout the story, her anecdotes about the daughter are suffused with a twinkling humor and affection that conveys the enormity of Louise’s love for her. Even prior to meeting her, the feeling is so massive that the desire to know the daughter outweighs the pain of her inevitable death, foreclosing in advance any other course of action than the one that leads to her existence.

Alongside these affirmative themes, the disturbing qualities of a deterministic relationship to reality persist. At one point, Louise describes an experience that, when I first read the story, struck me as full on, cosmically mind-warping version of the grain-of-salt-added, autumnal New Jersey epiphany-while-jogging that I described above. Normally, she tells us, she experiences her awareness of what is yet to come as a form of semi-remote “memory” that hails from the future rather than the past. But sometimes, her mode of consciousness goes full heptapod. When this occurs:

I experience past and future all at once; my consciousness becomes a half-century long ember burning outside time. I perceive—during those glimpses—that entire epoch as a simultaneity. It’s a period encompassing the rest of my life, and the entirety of yours. (140-141)

To me, this sounds like experiencing five decades of one’s own life as one of those works of [atonal music](#), or perhaps [drone metal](#), in which one is not sure while listening if the experience is one of anxiety, boredom, or weirdly ineffable transcendent bliss. Louise evokes similarly mixed emotions when summing up her thoughts about the remainder of her life at the end of the story:

Eventually, many years from now, I’ll be without your father, and without you. All I will have left from this moment is the heptapod language. So I pay close attention, and note every detail. From the beginning, I knew my destination, and I chose my route accordingly. But am I working toward an extreme of joy, or of pain? Will I achieve a maximum, or a minimum? (145)

In this passage, the state of being determined has two, simultaneous and interwoven meanings: Louise’s route is determined in advance, and she is determined to follow it to its destination.

¹⁰ [As this reviewer of the story’s film adaptation eloquently and persuasively asserts](#), Louise’s choice should not be interpreted as pro-life messaging in either text.

As her closing questions imply, this embrace of necessity is laced with conflicting implications about the extremes of joy or suffering to which her path could lead her. The possibilities coexist in disturbing proximity as factors of a predetermined mode of existence that has, in a very literal sense, become her way of life.

But in terms of philosophical implications, Chiang doesn't leave it at that. In a manner informed by the ambiguous spirit of our times, he declines to portray the deterministic way of perceiving the universe as the final word on the nature of reality. Comparing her state of being before she learned the heptapods' language to the one that came after, Louise opines that:

Freedom isn't an illusion, it's perfectly real in the context of sequential [human] consciousness. Within the context of simultaneous [heptapod] consciousness, freedom is not meaningful, but neither is coercion; it's simply a different context, no more or less valid than the other... Similarly, knowing the future was incompatible with free will. What made it possible for me to exercise freedom of choice also made it impossible for me to know the future. Conversely, now that I know the future, I would never act contrary to what I know. (137)

Neither way of being—free or determined—is ultimately more real than the other. Louise concludes that the fundamental differences in heptapod and human ways of perceiving time and causality stem from the fact “the physical universe [is] a language with a perfectly ambiguous grammar.” (133) From the human point of view, causes are seen to precede effects as constituents of a linear sequence in which free decisions can play a consequential role. From the heptapod perspective, effects and causes are simultaneous factors of the principles underlying the mechanics of physical reality, and choices are nonexistent.¹¹

¹¹ “Consider the phenomenon of light hitting water at one angle, and traveling through it at a different angle. Explain it by saying that a difference in the index of refraction caused the light to change direction, and one saw the world as humans saw it. Explain it by saying that light minimized the time needed to travel to its destination [a principle of how light travels in all instances, always taking the shortest route— insert mine] and one saw the world as the heptapods saw it. Two very different interpretations.” (Chiang 133) The key difference here is that the human perspective is one in which the specific causal action at a moment in time (the light hitting water at a specific angle) determines the outcome over time, whereas the heptapod perspective is one in which a principle that applies constantly at all times (light taking the shortest route) suffuses the entire process as a kind of underlying or teleological cause. This passage also broaches on an aspect of Spinoza's ideas that I haven't really focused on throughout this piece, but which comprises a very significant feature of his metaphysics, namely his endorsement of panpsychism. This is a philosophical position holding that something akin to mentality exists at differing levels of complexity in all forms of matter, meaning that it is not limited to certain forms of organic life. In their account of the heptapod's take on the causal process, Chiang/ Louise characterize light as having “minimized” the distance between one destination and another. This detail seems to imply something akin to mental action on light's part, and is therefore further evidence that the heptapods' intuitive experience of reality is a form of radical Spinozism.

Louise's emphasis on language and the simultaneous validity of fundamentally opposed perspectives is informed by Chiang's awareness of the contemporary reasons for doubting the full truth of Spinoza's claims. Scientifically speaking, the idea that things can be two ways at once and that neither way cancels the other out is one of the implications of quantum physics that no one is currently able to explain with certainty. In this regard, it is no coincidence that Louise uses the notoriously ambiguous phenomenon of light, [which can manifest as a particle, as a wave, or as neither/ both until measured](#), to illustrate the difference between heptapod and human consciousness (see footnote 11.) At a level informed more by philosophy, sociology, critical theory, and comparative linguistics, the story makes the point that language can radically influence our perceptions of reality at both the individual and collective cultural levels. In Louise's case, learning an alien language fundamentally transforms her perspective on the space-time continuum. The thematic implications of this outcome are tied up with contemporary critiques of the modern European Enlightenment (of which Spinoza, again, was a founding figure), particularly its presumption that modern rationalistic philosophies can provide an airtight model of reality. In this regard, the fact that she absorbs a Spinozan perspective by staring through the heptapods' "looking glass" is powerfully metaphorical, indicating as it does that the heptapods' point of view, persuasive and contagious as it might be, is a *framework* for understanding existence rather than an all-encompassing explanation of it. Ultimately, Louise's claim the universe itself is a "language" structured by "a perfectly ambiguous grammar" brings these two levels together, merging the implications of quantum science with the humanistic critiques of modern rationality. It suggests that the reasons that different languages and different cultures produce different models of reality is that reality itself is a language that can be understood in different ways. The ambiguities of language and their perceptual consequences, that is, are not confined to the realm of human (or alien) culture. Rather, they exist in culture, and affect the ways that different cultures relate to each other, because they are objective features of reality itself.

Although Louise acknowledges the objective status of these ambiguities, Chiang does not make her a full blown linguistic or cultural relativist, i.e. someone who believes that all of reality is constructed by human framings of it and that every world view is therefore equally valid. As presented in the story, the indeterminate nature of reality does not involve an "anything goes" scenario in which all truth claims are put on a par with each other. The indeterminacy that Louise encounters hinges around clearly delineated structural alternatives—indetermination versus determinism, freedom versus necessity—whose two sides are both supported in different ways by empirically observable features of the universe. Thematically speaking, Chiang upholds critiques of the totalizing portraits of reality produced by Enlightenment thinkers such as Spinoza without completely invalidating them or implying that there is no reason to take them seriously. In so doing, he indicates that we should always look to the world to support our claims about reality, while retaining an openness to multiple perspectives about its ever-slippery nature. In turn, this implies that we can learn important

lessons from different philosophical systems without having to fully adopt or inflexibly defend the worldviews that they model.

Yet there are some ways in which *Story of Your Life* gestures towards subjective particularities and varieties of unknowability that subvert the capacity of *any* philosophical system to fully predict, model or explain. For me, these have been brought to light in conversations with my students about the story's premises and thematic implications. One of the questions we discussed in class was how everyone in class would feel about the prospect of learning the heptapods' language if given the opportunity to do so. Would they want to become like Louise and know in advance everything that would ever happen to them? The responses on this were mixed: a slim majority of students said no, on the grounds that it would spoil the surprises of life and undermine the experience of free will. Some in this group also mentioned the loneliness that would come with knowing the future if their friends and loved ones did not. Others, however, claimed that they would welcome it with open arms for the exact same reason. This group held that, by eliminating surprise, foreknowledge would also eliminate worry. If you know everything that will ever happen to you, up to and including the day on which you will die, then there will be no uncertainties over which to fret. A couple of these students argued that Louise's condition would be the ultimate cure for awkwardness and social anxiety. If you know in advance everything that you're going to say and do in a social encounter, there will be no worry over the fact that you might say the wrong thing. (Here I will chime in that, though this argument seemed persuasive to me during class discussion, I subsequently thought of a horrifying counter-scenario— namely: one in which one knows in advance that one will say something totally inappropriate in the presence of others, but has no power to prevent oneself from doing so. This would be tantamount to waiting for a social timebomb to go off, knowing full well that you can't do anything to defuse it. Interestingly, however, *Story of Your Life* contains no such incidents. On the contrary, Louise always seems to have an intelligent or witty response prepared for her interlocutors. Perhaps this implies that the type of foreknowledge exhibited in the story somehow steers its possessors away from their worst social tendencies, and towards their social graces, despite their inability to make free decisions.) Though the diversity of these responses was partly based in logical extrapolations from the story's science fictional premise, it also was informed by particularities of personality, including subjective responses to personal experiences, that resist exhaustive philosophical modeling. Something immanent to the heart-mind of each student, something that evades the full light of reason, affected their responses to the story's scenario.¹²

During the same discussion, we noted a similar form of inscrutability when unpacking the implications of one of the passages that was quoted above. In it, Louise claims: "From the beginning, I knew my destination, and I chose my route accordingly." Immediately thereafter, she asks: "But am I working toward an extreme of joy, or of pain? Will I achieve a maximum, or

¹² And just to be explicit, this means that I disagree—at least to some extent—with Spinoza's characterization of human psychology as having predictably mechanistic underpinnings.

a minimum?" After reading this passage out loud, the question that I posed to the class was: if she knows everything that's going to happen to her, why doesn't she know whether she is headed for extremes joy or pain? Why doesn't foreknowledge of the events of her life entail foreknowledge of her emotional response to them? Why, in the penultimate paragraph of a story about knowing the future with total certainty, does Chiang introduce profound uncertainty about its emotional impact?

After giving it some thought, my students provided a response that was so insightful that I subsequently incorporated it into my discussion notes, intending to revisit it in future iterations of the course. In a series of comments that collectively expressed the point, they argued that knowing the course of future events is not the same as knowing how one's inner being will respond to them. The human heart, that is, contains depths that even those who know the future cannot see. Pre-knowledge of events is not knowledge of ourselves; there are mysteries inside us that cannot be unlocked by foresight alone. With this response, my students read the claims of Chiang and Louise against those of Spinoza: the objective order of things is not fully commensurate with the order of our minds and hearts; we cannot fully know the latter from the former. Our thoughts and feelings, though fully connected to the movements of matter, do not run strictly parallel to them. If we were to peer through the glass that reveals our fates, we would not see everything that we are. A surplus of our being would evade our sight.

Needless to say, that was quite a response on my students' part. And one that I didn't see coming!

Works Cited

Chiang, Ted. 2002. *Stories of Your Life and Others*. New York: Vintage.

Nadler, Steven. 2018. *Spinoza: A Life: Second Edition*. New York: Cambridge University Press.

Spinoza, Baruch. 2002. *Complete Works*. Trans. Samuel Shirley. Indianapolis, Illinois: Hackett Publishing Company.

