



***Hamlet* and Rational Choice**

Jim Leitzel¹ 

Accepted: 5 January 2023 / Published online: 30 January 2023
© The Author(s) 2023

Abstract A standard interpretation of the character of Hamlet is that he is indecisive, even pathologically so, and that his indecisiveness is manifested by the lengthy passage of time between when Hamlet is told that his father’s death was a murder and when he kills the perpetrator. Rational choice in economics concerns the connection between means and ends. A person is rational if, given her ends (her goals), she chooses reasonable means to achieve those ends. With uncertainty, a bad (or tragic) outcome can occur even when the best decision is taken. A reasonable approach to achieving one’s goal does not imply that the goal is attained. In Shakespeare’s *Hamlet*, the fact that most of the main characters, including Hamlet, meet untimely deaths is, therefore, not sufficient to conclude that Hamlet (or any other character) engages in less-than-rational behavior. This article examines Hamlet’s actions through the lens of rational choice. Hamlet’s delay in seeking revenge, combined with his interest in collecting more evidence of the alleged assailant’s guilt, comports well with economic rationality. The common view of Hamlet as indecisive, as someone who incorrectly substitutes deliberation for action, is unwarranted.

Keywords Rationality · Shakespeare · Hamlet · Literature

JEL Classification Z11 · A12 · A20

Introduction

Sir Laurence Olivier (1948) prefaces his acclaimed film version of *Hamlet* (Shakespeare, 2012) with a description of the prince as “a man who could not make up his mind.” Such a description renders the Danish brooder to be un-economic: an

✉ Jim Leitzel
j-leitzel@uchicago.edu

¹ University of Chicago, 1307 East 60th Street, Chicago, IL 60637, USA

inability to choose is banished axiomatically from the standard theory of rational choice.¹ Is Olivier, along with countless others who fault Hamlet for excessive procrastination, correct?

Recall the situation faced by the young prince. His father, King Hamlet, has suddenly died. Shortly thereafter, Claudius, brother to the dead king and young Hamlet's uncle, is chosen to be the new ruler of Denmark and marries the recently widowed Gertrude, Hamlet's mother. Next comes the shocking news that a ghost in the form of the late king has appeared outside Elsinore, the royal castle. Hamlet's investigation leads to a meeting with the ghost, who claims to be the spirit of Hamlet's father. The ghost further alleges that his mortal existence ended via a murder perpetrated by Claudius, and calls for young Hamlet to seek revenge. This is Hamlet's state of affairs as of the end of Act 1. It is only at the very end of the play, in Act 5, scene 2, that Hamlet, himself about to perish, avenges his father's death by killing Claudius.

The goal of this article is to read the most famous tragedy in the English language through an economic lens. In short, is Hamlet rational? In economics, rational choice concerns the connection between one's preferences or goals and the decisions made in their pursuit. A person's (fixed) preferences are their own business, taken as a given by the economic analyst. To be rational is to choose appropriate (or at the extreme, fully optimal) means to satisfy your preferences or to achieve your goals: the "reasoned pursuit of self-interest" (Sen, 2018, p. 11,225). Preferences themselves cannot be mistaken from the economics point of view. An irrational choice, however, is a failure to appropriately advance the satisfaction of those preferences.

Choices generally are made under uncertainty. One cannot know in advance the precise outcomes of our actions. The optimal decision at any moment in time might result in a very poor, even a tragic, outcome, from the decision maker's point of view, once the uncertainty is resolved. In dealing with uncertainty, however, a rational approach does include holding reasonable beliefs about the likelihood of future outcomes arising from alternative choices, and adjusting those beliefs suitably as new, relevant information emerges (Elster, 2015, pp. 244–246).² Appropriate investment in acquiring such pertinent information constitutes another dimension of rational behavior under uncertainty (Elster, 2015, p. 235). The three components of rational choice under uncertainty are: (1) appropriate decisions given one's preferences and beliefs, (2) appropriate beliefs given the information available, and (3) appropriate investments in generating relevant information (Elster, 2015, p. 235).

A major barrier to making judgments about rationality is that the underlying, presumably fixed preferences are not themselves directly observable. To infer preferences from choices is to assume rationality, not to judge it. Nonetheless, one can make reasonable suppositions about preferences given testimony and context, whether in real life or in the lives of literary characters. Hamlet's words and actions, for instance, suggest that he possesses a strong preference for avenging his father's

¹ The rationality requirement that preferences be complete rules out an inability to choose, though not indifference between two alternatives (e.g., Elster, 2015, pp. 238, 248–249).

² For a detailed exposition on rational beliefs in economics, see Gilboa et al. (2012).

murder, if his father was indeed murdered and if Hamlet is well assured of the identity of the perpetrator. Other elements of Hamlet's preferences admit of more ambiguity, Does Hamlet have any interest in his continued existence, and does he care about trying to escape any responsibility or negative consequences if he does take revenge?

Contrary to Olivier's contention and the traditional literary view that sees Hamlet as excessively indecisive, Hamlet's approach to decision making under uncertainty comports well with economic rationality. Hamlet's decisions concerning his pursuit of revenge, his beliefs given the information available, and his efforts to gather more information, are all quite sensible. One moment, not of delay, but of rashness (the mistaken killing of the counselor Polonius, which a quick glance could have prevented) is the potential irrationality that leads to a stage strewn with bodies. Even Hamlet's decision to strike before verifying his victim's identity possesses a plausible logic. In any event, the common view of Hamlet as indecisive is unwarranted.

While the broad contours of Hamlet's path to revenge are consistent with economic rationality, some aspects of his story remain curious. Among the features that raise questions are: (1) the precise method Hamlet adopts in the hope of acquiring more information; (2) Hamlet's attempt to convince others that he has lost his reason; and (3) the degree of Hamlet's concern with his own existence and wellbeing. The examination below of these elements of the play, however, once again serves to undermine the notion that Hamlet routinely behaves in a less-than-rational manner.

Shakespeare and Economics?

Economics books and journals are not well known for their attention to the works of William Shakespeare. Sometimes a Bardic passage makes its way into an epigraph or the text of a publication, but a ban on the direct use of Shakespeare in the economics profession would not prove to be much of a hindrance to the discipline, at least as currently practiced. Nonetheless, over the last few centuries, intersections between Shakespeare and economics have been extensive. Adam Smith's use of the phrase "invisible hand" was preceded by Macbeth's.³ Karl Marx made frequent Bardic allusions, and his whole household was rather awash in Shakespeare. One scholar describes Marx's domestic scene as including a cult of Shakespeare, a fixation that "few visitors to the Marx household in London failed to remark on." (Praver, 1976, p. 209; also, Hawkes, 2015, pp. 33–35).

³ *Macbeth* (Shakespeare, 2013; 3.3.54). The Shakespeare citations used herein are from the New Folger Library Shakespeare editions, which are available digitally at <https://shakespeare.folger.edu/shakespeare-works/>. The citation format (x.y.z) indicates that the act is x, the scene is y, and z, the line number, marks the beginning of any quoted passages. For more background on Smith and the invisible hand, see Wight (2007). Adam Smith was quite familiar with the works of Shakespeare and alluded to them occasionally in his writings, including an instance regarding *Hamlet* in *The Theory of Moral Sentiments*: Smith (1982 [1759], p. 259). An uncited usage of the phrase "insolence of office," borrowed from Hamlet's most famous soliloquy, appears in *The Wealth of Nations*: Smith (1981 [1776], Volume II, p. 761). Nonetheless, unlike Marx, Adam Smith "was no sanguine admirer of Shakespeare," as an acquaintance of Smith's reported: Smith (1985 [1762–3], p. 229).

In 1931, Yale economist Henry Farnam published *Shakespeare's Economics*, a book examining Shakespeare's works through an economics lens.⁴ The economics of Farnam's time was focused on the "production, exchange, distribution, or consumption of wealth" (Farnam, 1931, p. 2). These activities remain within the economics ambit, but the more expansive view of economics as the science of choice under scarcity opens up economics-style readings of Shakespeare which were not fully available to Farnam. Shakespeare has not changed very much since Farnam's book was published, but economics certainly has. Now it is possible to look at Shakespeare through the lens of both rational and less-than-rational choice.⁵

Literary scholars have long been interested in pursuing economic themes, often from a Marxist perspective (e.g., Egan, 2004).⁶ Naturally, Shakespeare is well represented within this evolving sub-field, as exemplified by a book by David Hawkes (2015), *Shakespeare and Economic Theory*. Hawkes's monograph provides a map of the critical landscape around economics and Shakespeare, while elucidating (p. xiv) how "Shakespeare depicts England's troubled transition from an economy based around use-value to a society organized around the pursuit of exchange-value."

Scholars have regularly gone beyond Shakespeare's writings to explore economic topics connected to Shakespeare's life and legacy, such as the financing of theatres and playacting companies (Stern, 2014) in Elizabethan London. Bearman (2016), for instance, offers a meticulous look at just how much income Shakespeare was able to earn during his literary and theatrical career, and how his wealth influenced his socio-economic status. The essays in Shellard and Keenan (2016) embrace a broader theme, examining the economic impact of Shakespeare and the Shakespeare brand over the centuries.

The secondary literature on *Hamlet* is vast. Most reasonable interpretations have multiple proponents (and opponents), including the interpretation presented herein contending for the basic rationality of Hamlet. The political theorist Jon Elster (2015, p. 284) argues, if not for the full rationality, then at least for the intelligibility of Hamlet's words and actions.⁷ The journalist Kathryn Schulz (2010, pp. 171–172) notes that lengthy consideration is appropriate for Hamlet's high-stakes decision, one that initially lacks a firm evidentiary base. She also indicates (p. 170) that the notion of Hamlet as a model of indecision took more than 150 years to become established as a staple of Shakespeare criticism. Approaching the subject from a

⁴ Watts (2003) and Morson and Schapiro (2017) offer economics-style contributions on the larger relationship between literature and economics.

⁵ On the changing definition of economics, see Backhouse and Medema (2009). Systematic, less-than-rational choice has been the primary subject matter fueling the rise of behavioral economics in recent decades. In my blog Behavioral Economics Outlines, I have collected many passages from Shakespeare that are illustrative of behavioral economics ideas; see <http://beoutlines.blogspot.com/2016/07/william-shakespeare-behavioral.html>.

⁶ For non-Shakespeare-specific explorations of the intersection between literature and economics, see Akdere and Baron (2018) and Seybold and Chihahra (2019).

⁷ Elster (2015, p. 283) goes further, in proposing that for classical literature a "successful work of art is one that can be given a rational-choice explanation," though the rationality applies to the author's goals and choices, not to the behavior of the author's literary characters. However, such authorial rationality, for Elster (2015, p. 286), requires that the characters speak and behave in ways that, if not fully rational, are at least intelligible.

psychological perspective, Orbell (1993, p. 133) argues that Hamlet does not possess any sort of abnormal personality, but rather reflects “the psychology of a thoroughly normal person... responding in a thoroughly normal way to a distinctly *abnormal* situation.” All of these contributions are precursors to the rationality analysis herein, though I believe that the precise formulation and detailed examination in this article are original. Further, despite a strand of critical dissent, Olivier’s view that Hamlet is irresolute continues to be commonly held. Schulz (2010, p. 170) characterizes the current conception of Hamlet to be that of “a man so paralyzed by indecision that he is unable to take action.”

Transdisciplinary studies come at a cost, relinquishing the significant productivity gains that derive, as Smith (1981 [1776], Volume I, p. 13) notes, from the division of labor. However, Smith is no unalloyed proponent of specialization. Smith (1981 [1776], Volume II, p. 782) says that those who devote their lives to “performing a few simple operations” are in danger of becoming “as stupid and ignorant as it is possible for a human creature to become.” So maybe there is something to be said for tackling Shakespeare and economics together. Maybe this study falls within a partial Smithian exception, those ventures undertaken by “men of speculation, whose trade it is, not to do any thing, but to observe every thing; and who, upon that account, are often capable of combining together the powers of the most distant and dissimilar objects” (Smith, 1981 [1776], Volume I, p. 21). Hamlet himself is no stranger to boundary-crossing; according to someone who knows him well, he’s (3.1.164): “The courtier’s, soldier’s, scholar’s, eye, tongue, sword, Th’ expectancy and rose of the fair state, The glass of fashion and the mold of form.”

The bow is bent and drawn. Time to make from the shaft.⁸ To *Hamlet* and rationality.

Hamlet and Rational Revenge

Shakespeare scholar Harold Goddard (1951, p. 33) notes a curious fact of Hamlet, “namely, that nearly all readers, commentators, and critics are agreed in thinking that it was Hamlet’s duty to kill, that he ought indeed to have killed much sooner than he did.” Hamlet generally is considered to be almost pathological in his procrastination, dithering too long between the time he is asked to avenge his father’s murder, and the moment that he finally gets around to dispatching his uncle. Hamlet repeatedly brings the dithering charge against himself, too. Witnessing the manufactured emotion of an actor leads Hamlet (2.2.577) to question why his own unfeigned circumstances have not called forth the appropriate revengeful responses. Watching soldiers eagerly rush towards an objectively inconsequential battle in which many will die makes Hamlet wonder (4.4.41) whether perhaps he has been paralyzed by “thinking too precisely on th’event.”

Consider again the circumstances in which the young prince of Denmark finds himself. His father, King Hamlet, has unexpectedly died. Shortly thereafter,

⁸ The allusion (near quote) is to *King Lear* (Shakespeare, 2015; 1.1.160).

Claudius, brother to the dead king and thus young Hamlet's uncle, is chosen to be the new king (Denmark is governed as an elective monarchy) and marries the recently widowed Queen Gertrude, Hamlet's mother. In a short period of time, young Hamlet is buffeted by a rather unsettling series of events.

Hamlet harbors a vague suspicion, a (1.5.48) "prophetic soul," that Claudius may have played a role in King Hamlet's demise. After all, the usual who-benefits criterion would make the new King Claudius an obvious suspect in his predecessor's death, if that death were unnatural. Then comes the shocking news, reported by Hamlet's trustworthy friend Horatio and affirmed by two experienced watchmen, that a ghost in the guise of the late King Hamlet has appeared outside Elsinore. Hamlet's investigation leads to a meeting and conversation (1.5.1) with a specter that presents a plausible case to be his father's ghost.

Indeed, the ghost claims to be the spirit of the dead king and alleges that his death was not due to natural causes (the official story had been that a snake had bitten King Hamlet while he was sleeping in a garden), but rather was a murder perpetrated by Claudius. Details of how the murder presumably took place (a poisonous unction poured into the sleeping king's ears) are provided, along with a call for young Hamlet to seek revenge on his father's behalf against his uncle (1.5.31). The ghost walks abroad at night, it tells Hamlet (1.5.15 and 1.5.83), because the life of King Hamlet expired before the Danish leader had prayed for forgiveness. The ghost lingers in a version of purgatory.

So now Hamlet's vague initial suspicion has been corroborated by the ghost. A rational Hamlet surely should increase his initial subjective estimate of the probability that Claudius murdered his father. Nonetheless, should Hamlet immediately head off to kill Claudius, the King of Denmark? Of course not. The available evidence, though quite suggestive, certainly does not establish a compelling case that Claudius killed King Hamlet, or even that the monarch's death was a murder.

Economic rationality requires choosing reasonable means to one's ends. Hamlet's ends are conditional. If Claudius killed King Hamlet, then the prince wants to wreak vengeance upon Claudius. If Claudius is innocent of King Hamlet's death, then Prince Hamlet has no interest in revenge against Claudius.

Hamlet suspects that the ghost is trustworthy (1.5.154), though his actions and further reflections indicate that his trust in the ghost is limited. Hamlet's own state of mind, full of grief and suspicion, is enough to make him believe things that he imagines or that he wants to believe, even with flimsy justification. Hamlet understands his susceptibility, that his "weakness and... melancholy" (2.2.597) could leave him prey to evil spirits just as easily as his filial duty could render him the appropriate instrument to avenge his father's supposed victimization. In the terminology of behavioral economics, Prince Hamlet is sophisticated, recognizing his own potential shortfalls from full rationality and, therefore, willing to take costly steps to prevent those shortcomings from undermining his wellbeing.⁹

⁹ Sophistication (as opposed to naivete) is a sort of meta-rationality generally discussed in the context of present-biased individuals, who might, for instance, overindulge in immediate gratification in ways that they understand undermine their own long-term interests (e.g., O'Donoghue & Rabin, 2015).

Hamlet has time on his side. At this point, Claudius seems unaware that Hamlet is considering fatal retaliation against him, though the prince has begun to act in uncharacteristically strange ways. Hamlet, then, should have ample opportunities in the future to take revenge, if it is clear that revenge is the proper course. In the meantime, further information might emerge (and Hamlet could try to provoke its emergence) that might settle the issue of Claudius's guilt. If it turns out that the ghost is untrustworthy (e.g., Hamlet learns that the "ghost" is an elaborate ruse), the receipt of that new knowledge would make killing Claudius no longer an attractive means for securing Hamlet's aims. Killing the king is an irreversible act, one that involves serious costs to Claudius, Hamlet, Gertrude and others, costs that cannot be recouped if later Hamlet believes the revenge killing to have been a mistake.

The theory of rational choice under uncertainty has been applied to the specific conditions that feature in Hamlet's situation: an irrecoverable cost to taking an action (killing Claudius); uncertainty as to the desirability of the action; the potential for further information respecting the desirability of the action; and the continuing availability of the action. A main finding from this application (Dixit, 1992) is that often there exists a value to waiting, to postponing an irreversible decision until more information arrives. Hamlet's lack of immediate action need not be irrational at all. Indeed, it might be precisely what is called for.

A reasonable or rational course of action for Hamlet at this point, then, is to postpone the irreversible act of killing Claudius and instead to gather more information (at least if it is inexpensive to do so). This is the course that Hamlet pursues. Hamlet takes advantage of the arrival of a troupe of actors to test the hypothesis that Claudius killed King Hamlet. The test is not exactly foolproof: It rests upon Hamlet's understanding that a criminal, confronted with a re-enactment of his crime, sometimes cannot help but to betray his guilt. Hamlet enlists the visiting players to enact a scene that parallels the murder recounted by the ghost, along with the subsequent coupling of the murderer and the widow, with Claudius in the audience. Hamlet intends to observe Claudius's reaction carefully. However, he goes further, again in recognition of his own limitations or bias, asking his trusted friend Horatio to serve as a second witness (3.2.80).

Hamlet's "play-within-the-play" turns out as Hamlet presumably hopes it will, wherein he is able to "catch the conscience of the King" (2.2.634). Claudius starts from his seat in the immediate aftermath of the staged ear poisoning, crying "Give me some light. Away!" (3.2.295). The players' performance comes to its own untimely end. Hamlet's verdict is in (3.2.312): "I'll take the ghost's word for a thousand pound."¹⁰ Starting from a "prophetic soul," supplemented by a compelling ghost with a precise accusation, and further strengthened by a reaction from Claudius that is suggestive of guilt, Hamlet's subjective view of the probability that Claudius killed King Hamlet has been raised to a near certitude. Hamlet now feels sufficiently assured that Claudius killed his father that he accepts it as his duty to "Revenge his foul and most unnatural murder" (1.5.25).

¹⁰ Horatio's concurrence only goes so far as to record that Claudius reacted with passion (3.2.316).

Following the prematurely terminated performance of the visiting players, the scene shifts (at 3.3.29) to Claudius and his advisor Polonius discussing how Polonius will eavesdrop on Hamlet's upcoming meeting with Gertrude, his mother. Polonius exits, Claudius is alone, and for the first time the readers or audience of the play *Hamlet* (not the character Hamlet himself) become fully apprised from Claudius's own words that Claudius did indeed murder King Hamlet.¹¹ Prince Hamlet, unseen by Claudius, enters the otherwise unpeopled room. Hamlet is armed with a sword while Claudius is inattentive and unguarded: Hamlet recognizes that he could dispatch Claudius straight: "And now I'll do 't." (3.3.78).

However, there is a rub: Claudius is at prayer. The ghost is in his purgatory (he told Hamlet) because King Hamlet had died without settling his account with heaven: "Cut off, even in the blossoms of my sin" (1.5.83). To murder his praying uncle would be to assure Claudius a better afterlife: "And am I then revenged," asks Hamlet, and he answers, quite reasonably, given the religious beliefs of the day, no (3.3.89). Hamlet postpones his killing of Claudius for a more propitious moment, when Claudius is fresh in his vices (3.3.94), and hence his soul will go to hell (3.3.100). Rationality requires choosing tolerable means to promote one's ends, and Hamlet's ultimate end is not to kill a deserving Claudius, but to carry out revenge upon Claudius. What appears to be a golden opportunity for revenge is actually a quite doubtful one. Further, Hamlet recognizes (3.3.93) that it is very likely that he will have more, and better, opportunities to secure revenge against Claudius down the road.

Hamlet is on his way to speak with his mother in her "closet" (a private room, not her bedroom) when he encounters the praying Claudius. In another part of the castle, Polonius and Gertrude are arranging (3.4.6) that Polonius will eavesdrop on the forthcoming mother-son conversation. Polonius conceals himself behind an arras (a tapestry) in the queen's closet.

The ensuing conversation between Hamlet and Gertrude quickly turns combative. When Hamlet indicates that he will not let his mother depart the room until he completes his indictment of her rushed re-marriage, Gertrude calls for help. Polonius, hearing the cries, adds his voice to the request for assistance, simultaneously revealing to Hamlet that an intruder is about. Hamlet plunges his weapon through the identity-shielding arras, killing Polonius, though Polonius was not the intended victim. Hamlet thought (understandably, given the private location) that the third party in the room was Claudius (3.4.39). Hamlet mistakes this encounter for one of those foreseen opportunities to dispatch his uncle. Gertrude accurately describes Hamlet's act of violence (3.4.33): "O, what a rash and bloody deed is this!" Striking a potentially fatal blow is a high-stakes decision, and Hamlet's choice not to identify the victim (when it would have been quite easy to do so) is both individually and socially costly, and serves as the main propellant that transforms a revenge story into a revenge tragedy.¹²

Hamlet shows little in the way of remorse for his fatal error. Rather, it is Polonius that Hamlet accuses of rashness (3.4.38): "Thou wretched, rash, intruding

¹¹ (3.3.40); an earlier (3.1.56) very suggestive hint is given in an aside by Claudius.

¹² Elster (2015, p. 284) offers an alternative interpretation, that Hamlet is sufficiently sure that the third party is Claudius that he has no reason to verify the eavesdropper's identity.

fool, farewell.” With the corpse now exposed in the room, Hamlet recommences his argument with Gertrude. He hopes to convert his mother to Hamlet’s own anti-Claudius position. Hamlet is interrupted by a visit from the ghost (3.4.118). The ghost and Hamlet converse, but Gertrude, an eyewitness, neither sees nor hears any ghost.¹³ She believes the ghost to be “the very coinage” (3.4.157) of Hamlet’s brain.

This second encounter with the apparition might well cause a sophisticated Hamlet to reconsider the veracity of the ghost. Indeed, an appropriate update of beliefs might lead him to place a high probability on the prospect that Gertrude is right, that the ghost (at least in this instance) emanates from Hamlet’s own diseased wit. A dispassionate look at the whole situation (Hamlet has murdered an innocent person and is conversing with a ghost that another high-functioning witness believes does not exist) suggests that Hamlet might want to delegate any future high-stakes decisions to a trustworthy agent: Horatio, presumably. Further, Hamlet’s degree of belief with respect to whether or not Claudius murdered his father should be updated, too. In particular, the increased concern over the ghost’s existence or reliability should render a rational Hamlet less certain of Claudius’s guilt.

Before Hamlet met with his mother, he already knew that he soon would be sent to England, accompanied by his schoolfellows, Rosencrantz and Guildenstern. The killing of Polonius accelerates the commencement of this sea journey. On board the ship, Hamlet opens Claudius’s message to the King of England, only to learn that Claudius asks the English monarch to immediately execute Hamlet. This information renders the existence and veracity of the ghost (recently brought into renewed question) to be essentially irrelevant. Hamlet now possesses an independent and compelling reason to seek revenge against Claudius. (The new information that Claudius arranged Prince Hamlet’s execution, however, makes it more likely that Claudius also murdered King Hamlet.)

Hamlet contrives to sidestep England and return to Denmark. Polonius’s son Laertes likewise returns to Denmark (from France), intent on avenging his father’s death. Polonius’s daughter Ophelia falls into a madness, and either by accident or suicide, drowns. Claudius and Laertes, knowing that Hamlet is returning to Elsinore, conspire (4.7.147) to organize a friendly fencing match between Laertes and Hamlet, one in which Laertes will kill Hamlet with the sharp and poisoned point of an unbated rapier. The killing is intended to be viewed by onlookers as an accident, caused by an unseen fault in the fencing equipment. In case the stabbing scheme fails, Claudius arranges to poison Hamlet’s drink. At Ophelia’s funeral, Hamlet and Laertes rage and scuffle (5.1.267).

The dueling plot goes awry. Gertrude drinks from the poisoned chalice intended for Hamlet (5.2.318). Before she dies, Laertes succeeds in stabbing Hamlet with the envenomed rapier, though Hamlet obtains control of the weapon and stabs Laertes. Like the Queen, both will be dead within minutes. Laertes explains that the King is to blame for the poison plot. Hamlet immediately wounds Claudius, and then

¹³ There is no direct evidence that any character other than Hamlet hears the ghost speak, though some characters (including Horatio) see the ghost.

forces the poisoned drink down the King's throat (5.2.356). King, queen, prince, and Laertes: all are murdered.

Once Hamlet learns from Laertes that he has only minutes to live, and that Claudius (in league with Laertes) is responsible for the assassination scheme, Hamlet kills Claudius straightaway. There no longer is an option value to waiting, but furthermore, the killing of Claudius is publicly justified by the death of Gertrude and Laertes's dying confession, and privately justified by the earlier revelation of Claudius's plot to have Hamlet executed in England. That is, Hamlet can now take revenge upon Claudius not only for a death (his father's) that the public has no reason to think to be a murder, but also for a death (his mother's) that all the court onlookers understand to be Claudius's fault. Given his own impending death, Hamlet need not be concerned with any further personal consequences from his regicide.

Rational Search? Quests for Information in *Hamlet*

The uncertainty that social scientists face concerning a person's preferences is more general. The motivations driving the behaviors of others cannot be fully known. One result is the adoption of strategies such as Hamlet's staging of the play-within-the-play to generate more evidence as to Claudius's guilt or innocence. Shakespeare's play is replete with other attempts to collect additional information, including further staged encounters. Two examples, both involving endeavors to learn more about Hamlet, follow.

Claudius and Gertrude respond to Hamlet's erratic behavior by inviting Hamlet's old schoolmates Rosencrantz and Guildenstern to Elsinore, though an invitation from the king and queen of Denmark might be more of a summons than a request. The hope of the royal couple is that Rosencrantz and Guildenstern might succeed in cheering up Hamlet, and also be able to uncover the cause of his changed personality (2.2). As Rosencrantz and Guildenstern are expected to report what they discern about Hamlet to Claudius and Gertrude, they essentially are tasked with spying on the prince. Rosencrantz and Guildenstern agree to engage in these activities but view their mission as benign (2.2.40). Though Hamlet's erstwhile schoolfellows are unable to discover the cause of Hamlet's odd affect, they perceive that his seeming madness is intended to mislead. Their prying does uncover some new, and truthful, information concerning Hamlet, which they relay (3.1.8) to Claudius, Gertrude, and Polonius.

Claudius teams with Polonius in another attempt to uncover the source of Hamlet's bizarre behavior. Polonius believes that Hamlet is lovesick, as his romantic overtures towards Polonius's daughter Ophelia have been rebuffed. Claudius and Polonius, with the assistance of Ophelia, arrange (2.2.176) for Ophelia to meet Hamlet in what seems to be a private setting, but where Claudius and Polonius can overhear the proceedings. As with Hamlet's own theatrical device and the visit of Rosencrantz and Guildenstern, the eavesdropping stratagem is successful in providing vital new information. In this case, however, the new information leads to the rejection of the initial hypothesis that Hamlet is lovesick. Claudius's

response to the Ophelia-Hamlet exchange is (3.1.176) “Love? His affections do not that way tend.”¹⁴

The success of these attempts to produce better information speaks for itself. At least if the costs are low, setting up an appropriate staged encounter within the environment of Elsinore is a reasonable approach to dealing with the uncertainty of the motivations and preferences of others. However, are the costs (or the expected costs) low? Though himself engaged in surreptitious information gathering, Hamlet repeatedly becomes incensed at being spied upon. In the course of his already contentious meeting with Ophelia, Hamlet realizes they are being watched (3.1.141) and at this point, Hamlet’s verbiage ratches up into a threatening, misogynistic rant. Later, his rapier thrust through the arras and into Polonius occurs immediately upon Hamlet’s recognition that there is an eavesdropper in the room during his conversation with his mother. Rosencrantz and Guildenstern earn Hamlet’s ire for agreeing to “play upon” him (3.2.394), in their attempt to get him to reveal the source of his distemper. Even before they embark for England, Hamlet indicates he will foil the plans of Rosencrantz and Guildenstern, and it “shall go hard” (3.4.230) for them. However, Rosencrantz and Guildenstern have no knowledge of Claudius’s plot to have Hamlet executed in England. Nonetheless, Hamlet arranges the deaths of Rosencrantz and Guildenstern, and (again) he displays no remorse at all. Indeed, he blames them for their own demise, because they insinuated themselves into the affairs at the royal court (5.2.64). Death to spies!

Hamlet’s multiple over-the-top responses to being played upon by others for the purpose of learning more about his motives suggests that in deciding whether it is a good idea to spy on someone at Elsinore, the plotters should consider the possibility that their plans will be revealed to their own detriment, even if the information search itself succeeds. All of the attempts to spy upon Hamlet become known to him, leading directly to the deaths of Polonius and Rosencrantz and Guildenstern, and indirectly to the death of Ophelia. However, these potential costs of espionage seemingly were not considered at the planning stage.

Hamlet’s play-within-the-play as well as Polonius’s interpretations of overheard conversations do not seem like particularly effective means of acquiring accurate information. People can be good at misleading others. Hamlet understands the economics notion that for a signal to have value it must involve differential cost (Spence, 1973). If anyone motivated to mislead can say or do the same thing just as easily as someone hoping to reveal truthfully, then there is no informational content to the action or phrase. Such behaviors are merely (1.2.87) “actions that a man might play.” This recognition, however, does not prevent Hamlet from himself putting on

¹⁴ A further staged encounter comes from Polonius’s interest in learning about the behavior of his son, Laertes, in Paris. Polonius sends a messenger to France, and recommends (2.1.3) that the messenger meet those who know the Danish expatriates in Paris, while professing some slight acquaintance with Laertes. Then the messenger should falsely accuse Laertes of being partial to vices, such as gambling or drinking or visiting prostitutes. Polonius’s hope is that the Paris denizens will then disgorge information about any actual misbehaviors by Laertes; the messenger is to employ slander to fish for intelligence (2.1.70): “Your bait of falsehood takes this carp of truth.” The result of this undercover operation is not reported in the play.

a sham lunacy, engaging in bizarre behaviors that are themselves actions that a man might play.

Rational Madness?

Almost from the instant that the ghost first speaks with him, Hamlet takes on a new public persona. He feigns madness. He adopts (1.5.192) “an antic disposition.” Why? Perhaps he believes that his madness will somehow render Claudius less prone to distrust him. Nonetheless, Claudius appears more alarmed than assuaged by Hamlet’s erratic behavior (3.1.180). Perhaps Hamlet is worried about the fallout from his intended murder. Perhaps he fabricates a reputation for brainsickness to arrange a plausible excuse for killing the king (i.e., he prepares the ground for an insanity defense).

In this light, Hamlet’s failure to look behind the arras before stabbing Polonius might well be an element of a rational, considered approach. The ostensibly mad Hamlet hears a trespasser and quickly strikes, killing the intruder Claudius (as Hamlet hopes). With his madness already well-known, Hamlet would lack *mens rea*, the guilty mind that generally is required for criminal responsibility. Without the madness, what would Hamlet say after such a killing of Claudius? “A ghost told me (and told no one else) that Claudius killed my father, so I had no choice but to murder the king,” or perhaps “I didn’t have time to check to see if the person in the room was a threat or not”? Though Hamlet’s high rank might have exempted him from the full force of the criminal law, his excuse for his lethal act would be quite flimsy. To be known to suffer from a mental illness might turn the murderer Hamlet into an object of sympathy.

The notion that Hamlet adopted the persona of a madman to provide a ready excuse for his intended future violence is lent further credence by Hamlet’s employment of madness to try to excuse, not the killing of Claudius, but the murder of Polonius. He says to Laertes (5.2.243):

*And you must needs have heard, how I am punished
With a sore distraction. What I have done
That might your nature, honor, and exception
Roughly awake, I here proclaim was madness.
Was ’t Hamlet wronged Laertes? Never Hamlet.
If Hamlet from himself be ta’en away,
And when he’s not himself does wrong Laertes,
Then Hamlet does it not; Hamlet denies it.
Who does it, then? His madness. If ’t be so,
Hamlet is of the faction that is wronged;
His madness is poor Hamlet’s enemy.*

A bold move, to tell the man whose innocent father he has murdered that they are kin, in respect that they both are “of the faction that is wronged”!

As for the actual official consequences that Hamlet suffers for his first homicide, that of Polonius, they are almost nonexistent. Claudius uses the murder to speed up Hamlet’s departure for England, but the trip was already planned. Claudius fears

(4.1.20) that he and Gertrude will be held responsible for not keeping tighter reins on the erratic Hamlet. That is, Hamlet's affectation of madness serves an end which he might have intended, that of shifting responsibility for a murderous act.

Hamlet indicates that he intends to simulate madness, and his public speech and behavior is consistent with such a resolution. However, does anyone really believe that Hamlet is deranged? Polonius sees something beyond madness in Hamlet's conversation (2.2.223): "Though this be madness, yet there is method in't." Guildenstern reports (3.1.8) that Hamlet assumes a "crafty madness" to deflect inquiries into his true state (i.e., Guildenstern (and Rosencrantz) deduce that Hamlet is feigning insanity). Claudius likewise infers from overhearing the staged meeting between Hamlet and Ophelia that (3.1.177) "...what he spake, though it lacked form a little, Was not like madness." In contrast, when Ophelia loses her reason (4.5), everyone (Claudius, Gertrude, Laertes) understands that she is truly mad.

Does Rationality Matter? Fate and the Desire to Live

While we can be quite confident of one element of Hamlet's preferences, his desire to avenge his father's murder, we can be less certain of other dimensions of concern for Hamlet. In particular, Hamlet's attachment to his own life might be negligible. He might be rather indifferent among the courses that his life takes or the timing of his death. Nor can we be certain that Hamlet thinks that rational decision-making matters, that choices can influence outcomes.

The play does not dramatize Hamlet's actions at sea during his uncompleted journey to England, but rather, the audience learns of them when Hamlet recounts his adventures to Horatio (5.2). On board the ship, Hamlet rifles through Rosencrantz and Guildenstern's effects to find Claudius's sealed message to the English monarch. Hamlet describes this behavior as rash (5.2.6): "And praise be rashness for it."¹⁵ Hamlet takes the point further. We can be better served by rash actions when considered thought might give us pause. This seeming paradox demonstrates for Hamlet that (5.2.11) "There's a divinity that shapes our ends, Rough-hew them how we will." (The word "ends" here refers to outcomes, not to goals.)

Such a view of fate erodes the significance of rational choice. Taken far enough, this viewpoint renders actions meaningless, and rational choice has no more to recommend it than does irrational choice, the belief that all is fate promotes resignation or nihilism or acceptance.

When Hamlet first encounters the ghost, Horatio and a guard attempt to convince Hamlet not to accept the specter's gesticulated invitation to a private meeting. Hamlet points out that he has no fear (1.4.73): "I do not set my life at a pin's fee. And for

¹⁵ Hamlet's spying is not rash, however. There is little in the way of downside risk if he gets caught opening the letter, or if it does not contain any relevant information. Reading the letter, rather, is another instance of rational information gathering by Hamlet.

my soul, what can it do to that, Being a thing immortal as itself?”¹⁶ Even earlier, in his initial soliloquy, Hamlet expresses (1.2.137) little interest in life: “How weary, stale, flat, and unprofitable/ Seem to me all the uses of this world!” If Hamlet’s proclaimed low valuation of his life represents a truthful revelation – and placement in a soliloquy eliminates any motive to deceive others – then his interest in continued existence in this world is minimal.¹⁷

One of the curious elements of the last act of *Hamlet* is that the prince voluntarily takes part in the duel that Claudius arranges between Laertes and Hamlet. After all, Hamlet knows that Claudius wants him dead, and that Laertes is incensed with him about the deaths of Laertes’s father and sister. Hamlet once again possesses a prophetic soul, telling Horatio concerning the duel (5.2.226) “how ill all’s here about my heart.” However, Hamlet overrides Horatio’s advice to abstain from the fencing match, pointing out that death comes to us all, in its own time (5.2.233).

Hamlet’s death shares with Polonius’s the feature that had Hamlet conducted a simple and quick visual inspection of the identity of the person behind the arras, or of the fencing equipment, things might have gone better. In both cases, rather than constituting oversights, it is possible that Hamlet fully understands the options and the likely consequences, and calculates that it serves his interests to remain unknowledgeable.¹⁸ Perhaps if Hamlet had checked the identity of the eavesdropper and it was indeed Claudius (as he suspected), his mother would have intervened, or his insanity defense would have become untenable. Had Hamlet carefully checked the fencing equipment, he might have signaled to Claudius and Laertes that he was on to them, and the well-guarded Claudius would have ensured that Hamlet would have no further opportunities to revenge his father’s murder.

One (strong) possibility, then, is that Hamlet has little interest in life. A second is that he does have an interest in life, but believes (as suggested herein) that his fate is sealed and our ends are shaped or perhaps predetermined by a divinity. If either of these possibilities accurately portray Hamlet’s situation, there would be little reason for Hamlet to care about any negative personal repercussions that would follow were he to succeed in killing Claudius.¹⁹ As a result, Hamlet would be judgment-proof, undeterrable in his quest for revenge by any threat of worldly sanctions.

¹⁶ Pins were apparently quite inexpensive even in Shakespeare’s time (circa 1600), which presumably is well prior to the extensive pin factory division-of-labor that Smith (1981 [1776], Volume 1, pp. 14–15) immortalized!

¹⁷ Hamlet also addresses suicide, complaining that self-slaughter violates God’s law (1.2.135). In his “To be or not to be” soliloquy (3.1.64), Hamlet argues that it is a close call between committing suicide or not, though uncertainty of what the afterlife holds discourages taking one’s own life.

¹⁸ A positive desire to avoid accurate information that is quite cheaply or freely available generally is not consistent with the standard economic theory of rational choice (Elster, 2015, p. 235); however, behavioral economics offers many channels by which people might choose to remain uninformed (e.g., Hertwig & Engel, 2020).

¹⁹ Hamlet expresses no concern about his own fate, with one exception. Just before his death, Hamlet tries to dissuade Horatio from suicide. He needs Horatio to live so that Horatio can explain to the world what took place at Elsinore (i.e., Hamlet is concerned about his post-mortem reputation). Other characters state or otherwise express an indifference towards consequences; for the case of Laertes, see (4.5.151) and (4.5.153). Ophelia’s drowning seems to result from either a failure to recognize the danger she is in, or an indifference to it. She acted (4.7.203) “As one incapable of her own distress.”

To Try Conclusions (3.4.217)

Though it is common for Hamlet to be viewed as overly deliberative, the evidence in the play does not offer much support for Hamlet's excessive indecisiveness. Most of his decisions (to feign madness, to subject Claudius to a re-enactment of the supposed murder, and to forgo the opportunity to kill Claudius at prayer) seem quite reasonable. The more compelling interpretation of Hamlet's behavior, rather, is that Hamlet's shortfalls from rationality arise from rashness, in failing to check to see who is behind the arras and in not perusing the foils, though even these potential departures from considered decision-making can be rationalized without too much ingenuity.

Should we expect Hamlet (or perhaps an actual human being in Hamlet's circumstances) to behave in a rational manner? Standard economics tends to answer "yes" to that question, and formal economic models of Hamlet's actions typically would invoke the rational choice apparatus of utility maximization under constraints. However, Hamlet is involved in a high-stakes, once-in-a-lifetime situation. He has no prior experience grieving his father's unexpected death, witnessing his mother's rushed remarriage, conversing with ghosts, or seriously contemplating regicide. Hamlet has not had the benefit of years of feedback from similar choices. For that matter, virtually no one has. Hamlet's circumstances, including their infrequency and the high associated stakes, offer rather poor prospects for the economists' assumption of rationality to hold (Thaler & Sunstein, 2021, pp. 13, 95–98). Yet, Hamlet's behavior is by and large consistent with rationality.

A common argument for undertaking transdisciplinary inquiries involving economics and literature is that literature presents models of decision-making that challenge the notion of humans as *homo economicus* (Morson & Schapiro, 2017, pp. 8–13). It is somewhat ironic that in this examination of *Hamlet*, the economic lens shows the character of Hamlet to be more rational than the traditional literary interpretation allows.

Data Availability A data availability statement is irrelevant for this article.

Open Access This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>.

References

- Akdere, Ç., & Baron, C. (2018). *Economics and Literature: A Comparative and Interdisciplinary Approach*. Routledge.
- Backhouse, R. E., & Medema, S. G. (2009). Retrospectives: On the Definition of Economics. *Journal of Economic Perspectives*, 23(1), 221–233.
- Bearman, R. (2016). *Shakespeare's Money: How Much Did He Make and What Did This Mean?* Oxford University Press.

- Dixit, A. (1992). Investment and Hysteresis. *Journal of Economic Perspectives*, 6(1), 107–132, Winter 1992 <https://doi.org/10.1257/jep.6.1.107>.
- Egan, G. (2004). *Shakespeare and Marx*. Oxford University Press.
- Elster, J. (2015). *Explaining Social Behavior: More Nuts and Bolts for the Social Sciences* (revised). Cambridge University Press.
- Farnam, H. W. (1931). *Shakespeare's Economics*. Yale University Press.
- Gilboa, I., Postlewaite, A., & Schmeidler, D. (2012). Rationality of Belief or: Why Savage's Axioms are Neither Necessary nor Sufficient for Rationality. *Synthese*, 187(1), 11–31.
- Goddard, H. C. (1951). *The Meaning of Shakespeare* (Vol. 1). University of Chicago Press.
- Hawkes, D. (2015). *Shakespeare and Economic Theory*. Bloomsbury Arden Shakespeare.
- Hertwig, R., & Engel, C. (2020). *Deliberate Ignorance: Choosing Not to Know*. MIT Press.
- Morson, G. S., & Schapiro, M. (2017). *Cents and Sensibility: What Economics Can Learn from the Humanities*. Princeton University Press.
- O'Donoghue, T., & Rabin, M. (2015). Present Bias: Lessons Learned and To Be Learned. *American Economic Review*, 105(5), 273–279.
- Olivier, L. (1948). *Hamlet*. Two Cities, director.
- Orbell, J. (1993). Hamlet and the Psychology of Rational Choice Under Uncertainty. *Rationality and Society*, 5(1), 127–140.
- Prawer, S. S. (1976). *Karl Marx and World Literature*. Oxford University Press.
- Schulz, K. (2010). *Being Wrong: Adventures in the Margin of Error*. Ecco (Harper Collins).
- Sen, A. (2018). Rational Behavior. In: Macmillan Publishers Ltd (Eds.), *The New Palgrave Dictionary of Economics*, third edition. Palgrave Macmillan.
- Seybold, M., & Chihara, M. (2019). *The Routledge Companion to Literature and Economics*. Routledge.
- Shakespeare, W. (2015). The Tragedy of King Lear. In: Mowat, Barbara A., Werstine, Paul, Simon and Schuster (Eds.), updated edition. Folger Shakespeare Library.
- Shakespeare, W. (2013). The Tragedy of Macbeth. In: Mowat, Barbara A., Werstine, Paul, Simon and Schuster (Eds.), updated edition. Folger Shakespeare Library.
- Shakespeare, W. (2012). The Tragedy of Hamlet, Prince of Denmark. In: Mowat, Barbara A., Werstine, Paul, Simon and Schuster, updated edition. Folger Shakespeare Library.
- Shellard, D., & Keenan, S. (2016). *Shakespeare's Cultural Capital: His Economic Impact from the Sixteenth to the Twenty-First Century*. Palgrave Macmillan.
- Smith, A. (1981 [1776]). *An Inquiry into the Nature and Causes of the Wealth of Nations*, Volumes I and II. Liberty Fund.
- Smith, A. (1985 [1762–3]). *Lectures on Rhetoric and Belles Lettres*. Liberty Fund.
- Smith, A. (1982 [1759]). *The Theory of Moral Sentiments*. Liberty Fund.
- Spence, M. (1973). Job Market Signaling. *Quarterly Journal of Economics*, 87(3), 355–374.
- Stern, T. (2014). 'Fill thy purse with money': Financing Performance in Shakespearean England. *Shakespeare Jahrbuch*, 150, 65–78.
- Thaler, R. H., & Sunstein, C. R. (2021). *Nudge: The Final Edition*. Penguin Books.
- Watts, M. (2003). *The Literary Book of Economics*. ISI Books.
- Wight, J. B. (2007). The Treatment of Smith's Invisible Hand. *The Journal of Economic Education*, 38(3), 341–358.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.