



BRILL

SAMUEL BECKETT TODAY / AUJOURD'HUI 34 (2022) 331–345

Samuel  
Beckett

T O D A Y  
A U J O U R D ' H U I

brill.com/sbt

## *Espace libre / Free Space*



# An Application of Game Theory to Beckett's *Waiting for Godot* and *Endgame*

*Kaveh Azodi*

English Department, Ferdowsi University, Mashhad, Iran

*kazodi@mail.um.ac.ir*

*Sara Khazai* | ORCID: 0000-0001-7007-4716

English Department, Ferdowsi University, Mashhad, Iran

*s.khazai@um.ac.ir*

*Mahmoud Reza Ghorban Sabbagh*

English Department, Ferdowsi University, Mashhad, Iran

*mrg.sabbagh@um.ac.ir*

## Abstract

*Waiting for Godot* and *Endgame* are rich in terms of interaction between characters and their surrounding contexts. The present paper examines these interactions according to the mathematical theory of games proposed by Steven J. Brams in *Divine Games: Game Theory and the Undecidability of a Superior Being*. The framework of Search Decision is used to examine the differences between the two plays in terms of interaction between the “state of nature” and Person, which provides a clear understanding of the reasons behind strategies characters may take within uncertain environments.

## Keywords

Search Decision – Game Theory – state of nature – payoff – *Waiting for Godot* – *Endgame*

### 1 Introduction

*Waiting for Godot* (1953) and *Endgame* (1957) carry different implications regarding the existence of a metaphysical figure. While such an entity is directly referred to as ‘Godot’ in the former play, the latter features an absence of God within the apocalypse. In terms of characters, both plays revolve around pairs who, both physically and mentally, supplement each other. In *Waiting for Godot*, the reader is presented with two tramps who lack either full mental or physical development: Vladimir has the benefit of thinking, whereas Estragon is more concerned with his bodily needs. In *Endgame*, each of the main characters possesses a feature that their counterpart is deprived of: Hamm cannot stand, while Clov cannot sit. Moreover, the sparse and apocalyptical settings in both plays turn language into the main focus of the characters’ existence and interactions.

While Vladimir (Didi) and Estragon (Gogo) share the common goal of waiting for their supposed savior, Hamm and Clov await the conclusion of the final part of their lives, or their ‘endgame,’ where no external intervention is expected. Therefore, the characters of *Endgame* have different preferences and strategies in their choices and exchanges. Both plays feature gamified interactions that center on the revelations and hints of an absent entity along with the interrelations between the main characters. The study of these relationships and their consequences in the two plays has been the subject of much academic debate.

The relevant academic commentary on *Waiting for Godot* and *Endgame* can be divided into two groups based on the way each depicts character interaction. The first group concentrates on character interplay owing to the abundance of games in the context of the two plays (Corcoran; Kumar; Bohman-Kalaja; Begam; Mendelytė); the second group explores the plays’ religious undercurrents and their impact on character interrelations (Fraser; Eisele; Bryden; Shobeiri; Brower). The study of the aforementioned literature also reveals a difference in the depiction of a metaphysical figure in the two plays: whereas *Waiting for Godot* features an absent entity who actively sends hints of revelation that prompt Vladimir and Estragon to keep waiting for him, *Endgame* represents humankind in the apocalypse, with no hint at the presence or revelation of a God-like figure.

The present study explores the mechanics of character interaction within the two plays' peculiar settings using Steven J. Brams's version of game theory in his book entitled *Divine Games: Game Theory and the Undecidability of a Superior Being* (2018). Within Brams's proposed game theory framework, the study of the interaction between the plays' characters and the consequences of their strategies results in a clarification of their intentions. In particular, Brams suggests a framework where certain decisions that are taken by two main interactors of the divine game—'Person' and 'Superior Being' (hereinafter referred to as SB)—affect the other's strategies and preferences. A key factor in Brams's theory is the dominance of uncertainty in the decisions made by each of the aforementioned figures. Such uncertainty would result in fluid games where the outcomes are not final and can change over time. Hence, the exploration of games with flexible strategies in Brams's framework makes it a fruitful ground for the analysis of Beckett's two plays.

Both plays feature moments where characters anticipate each other's next moves and adjust their activities accordingly. Even at the most definitive moments of despair and disappointment, that is, Vladimir and Estragon deciding to leave at the end of each act or Clov preparing to leave Hamm, there is still some sense of uncertainty, intimating that the game might not be over. Such a contention leads to another aspect of the present paper, namely, the study of decision-making. For instance, in *Waiting for Godot*, characters make many attempts to amuse themselves with the most nominal elements in the set to help pass the time and distract themselves from extreme boredom. They play with the idea of a divine presence and are tempted to provoke, anticipate, and wait for the actions of the title character. Similarly, the possibility of Clov leaving Hamm at the end of *Endgame* is left uncertain. This type of interaction conforms with Brams's game theory, as he contends that Person can enjoy free will and pose a challenge to Superior Being. Character interactions will be analyzed by modeling the pairs in *Waiting for Godot* and *Endgame* on 'Person' and the environment on 'state of nature,' the two elements of a payoff matrix in Brams's Search Decision.

## 2 Research Methodology

Brams first applied the mathematical theory of games to biblical stories in *Biblical Games, Game Theory and the Hebrew Bible* (1980). In his book, Brams applies decision theory and game theory to stories of the Old Testament to analyze the relationship between human beings and prophets with God (166). Brams justifies his theoretical approach based on the evidence that every character in the

		PLAYER B	
		Strategy 1	Strategy 2
PLAYER A	Strategy 1	(x,y)	(x,y)
	Strategy 2	(x, y)	(x,y)

FIGURE 1 A two-by-two payoff matrix

Old Testament has a well-defined preference, and these preferences translate into inchoate strategies which can be elaborated through the application of game theory (167). Although Brams's early theoretical approach does not offer a way to study the motivations of the characters, it lays down the basics of the theory which is used in the present paper.

Brams (1980, 13) introduces the concept of a “payoff” matrix to study the various outcomes of the games based on the strategies chosen by the players. A payoff matrix applies to a game between two players, each of whom may choose between two or more strategies to receive an outcome. Therefore, a game between player A and player B in which each can choose between two strategies creates a two-by-two payoff matrix (Figure 1).

In the above payoff matrix—given that both players are active decision-makers—there are four different pairs of outcomes for players A and B. In each bracket, the first variable (x) represents the payoff for the row player (Player A), whereas the second variable (y) represents the payoff for the column player (Player B). As each of the players in the above payoff matrix can choose between two strategies, their outcomes range from 1 to 4 and are arranged as follows:

4 = Best    3 = Next best    2 = Next worst    1 = Worst

In *Divine Games* (2018), Brams departs from his previous focus on the strictly religious image of a biblical God and studies instead the relationship between human beings and a personal God, as game theory is a better tool for the analysis of such interactions. In the second chapter of *Divine Games*, entitled “Belief Decisions,” Brams introduces the “state of nature” to describe the fixed circumstances of an environment and to replace the notion of an active partaker in a game (9). In doing so, he examines the rationality of decisions and strategies within certain circumstances and introduces a new model of belief-nonbelief based on Pascal’s wager.

Pascal’s wager is based on the assumption that when facing the dilemma of belief or non-belief, a wise person’s best strategy would be to believe in God’s existence as doing so would provide an infinite reward (Brams, 11). In other

		State of nature	
		God exists	God doesn't exist
P	Believes in God: B	Belief justified: infinite reward (4)	Belief unjustified: finite penalty (2)
	Doesn't believe in God: $\bar{B}$	Nonbelief unjustified: infinite penalty (1)	Nonbelief justified: finite reward (3)

FIGURE 2    Pascal's wager in a payoff matrix  
BRAMS 2018, 12

words, no matter how small the chances of God's existence are, a rational person must believe in God and avoid the harsh punishment of being indifferent toward him.

Brams elaborates on the idea of belief or non-belief in Pascal's wager by putting the various actions and consequences in a payoff matrix (Figure 2). Here, the entities involved in the matrix are Person (P) and state of nature, which represents the metaphysical figure as an unchanging 'state' rather than an active player. Based on Pascal's wager, both these entities can have two different states (or choices): 1) God either exists or does not exist; and 2) Person can decide to believe or not believe in the existence of God. When these conditions are taken together in the payoff matrix, there can be four different outcomes which are explained in Figure 2.

In the above table, each of the numbers represents the ratio of award or payoff which can be received by a person based on their decision. Pascal believes that Person's best decision is to believe in the existence of God because of its infinite reward, hence the best outcome (4) is ascribed to it. The next payoff would be non-belief from P and the nonexistence of God, as it yields finite reward and the next-best outcome (3). The next-worst (2) and worst (1) outcomes for P are belief despite the non-existence of God and non-belief despite his existence, as it would yield finite penalty and infinite penalty, respectively.

Brams, however, points out an inherent flaw in Pascal's model: Pascal neglects a third possibility for the existence of God where the lack of relevant information or evidence makes his existence indeterminable. Therefore, Brams recommends the consideration of three states of nature (2018, 13):

1. Superior Being's existence can be verified
2. Superior Being's nonexistence can be verified
3. Superior Being's existence or nonexistence is indeterminable (lack of information)

		State of nature			
		SB's existence verifiable	SB's nonexistence verifiable	Indeterminate (insufficient information)	
P	Searches: S	Search successful (6)	Search productive (5)	Search Unavailing (1)	Undominated strategies
	Doesn't search: $\bar{S}$	No search unwise (2)	No search wise (3)	No search appropriate (4)	

*Undominated strategies (if Superior Being is a player with the same preferences as Person)*

FIGURE 3 The payoff matrix in Search Decision  
BRAMS 2018, 14

Brams further incorporates these three states of nature into a more comprehensive framework which he calls the “Search Decision” (2018, 14). In Search Decision, Person can choose to search and verify Superior Being’s existence or nonexistence (S) or abandon the search completely ( $\bar{S}$ ). Because there are three states of nature, the result would be a two-by- three payoff matrix with six different outcomes. Similar to Pascal’s wager, the payoffs in Search Decision are rated from best (6) to worst (1). These payoffs are elaborated in Figure 3 above.

In Figure 3, the highest reward, based on Pascal’s assumption that a rational person would choose to believe in God, is given to the state where Person decides to search and can verify Superior Being’s existence (6). The least desirable outcome (1) is when the evidence is insufficient, and Person decides to search anyway. The results in between the two extremes are: Person’s decision for not searching when there is sufficient positive evidence (2), not searching when there is sufficient negative evidence (3), not searching when the evidence is insufficient (4), and searching when there is negative evidence (5).

It needs to be noted that none of the strategies for Person is dominated. In other words, there is no single strategy for Person to choose and consistently receive favorable payoffs. This partially stems from the uncertainty of outcome for the player as they choose a strategy. For instance, Person receives their best payoff (6) when their decision to search and verify Superior Being’s existence is coupled with sufficient evidence. However, with changes in the state of nature and the withdrawal of evidence of existence, it would be unwise for Person to keep searching.

Search Decision depends on evidence of SB’s existence or care and awareness (or lack thereof). However, Brams reminds us that this theoretical frame-

work is based on Pascal's wager who only considered payoffs for P and postulated the existence of SB (or his nonexistence) based on the evidence at hand (2018, 20). Therefore, as payoffs are not attributed to SB, the state of nature in the Search Decision can be determined by P's attitude toward SB's existence if there is no convincing evidence (Brams, 2018, 20).

When applied to Beckett's plays, the theoretical framework of Search Decision is particularly of significance as it includes a third state of 'indeterminable' evidence for a Superior Being's existence. Moreover, as the existence of such a figure is not taken for granted in Search Decision, it offers an opportunity to review the passive features of the state of nature in each of Beckett's plays. Therefore, the following question arises: What does the absence of a divine figure and the different philosophical treatment of Superior Being mean for the character interactions in *Endgame* as compared to *Waiting for Godot*?

### 3 Discussion

The first step in applying Brams's framework of Search Decision to the two plays is determining the state of nature in each. First of all, the nature of any metaphysical presence in both plays is left extremely ambiguous. Moreover, Beckett himself has left the question of God's existence in his plays without a clear answer. As for *Waiting for Godot*, for instance, he notes his awareness of the implications of the word Godot and its similarities to 'God,' but adds a further point which discourages a connection between the title character and God in its traditional, religious sense: he would overtly call the character God if that was what he meant (qtd. in Bair 382–383).

Moreover, any definitive association, or lack thereof, between God and Godot in *Waiting for Godot* is erroneous. In particular, Paul Lawley (2008), referring to the scene in Act II of the play where Estragon poses as a tree and shouts "God have pity on me!" considers it to be a reference to the common perception of God that is distinct from Godot (31). However, Lawley adds, Beckett still provokes the identification of Godot's character with God throughout the play (31–32). In other words, *Waiting for Godot* contains equal evidence for both confirmation and rejection of identifying God with Godot. In fact, audiences of the play are placed before an insoluble 'it is and it is not' paradox by the simultaneous evidence presented that Godot is not God and that Godot is God.

In *Endgame*, there is no equivalent for Godot's character, which may be a result of Beckett's outspoken frustration with interpretations of Godot as

God. In particular, Beckett himself refers to the “power of the text to claw” in *Endgame* as “inhuman” in a letter to Alan Schneider of 21 June 1956 (Beckett 2011, 628). Massoud (2016) then points out that the ‘inhuman’ quality of the play is the result of Beckett’s deliberate decision to further dissociate it from any notion of God and thereby avoid the misinterpretations of *Waiting for Godot* (237). Moreover, Massoud refers to *Endgame* as Beckett’s attempt to further portray the consequences of living in a world without God.

However, Athanasopoulou-Kypriou (2000) advises against an exclusively positive or negative interpretation of Beckett’s attitude toward God’s existence in any of his works, as doing so would only result in imposing one’s ideologies onto the text (35). In particular, she finds Beckett’s tendency to fluctuate between moments of optimism and pessimism to be a hindrance to a definitive decision on the nature of metaphysical existence in *Endgame* (37). Hamm’s prompt to pray to God in *Endgame* is a clear testimony of such a tendency. Therefore, although Beckett makes the explicit attempt to depart from suggestions of God’s existence in *Endgame*, there are still enough hints that demonstrate his ambivalent attitude toward the matter.

Considering the inherent ambiguity and suspense of meaning surrounding a metaphysical figure in *Waiting for Godot* and *Endgame*, Brams’s Search Decision is fitting for the study of the two plays for two reasons: 1) Brams replaces God with “state of nature” to eliminate overt reference to religious notions and 2) Search Decision features a third state where Superior Being’s existence is indeterminable. In particular, the third state of nature in the Search Decision can be assigned to both plays, where Superior Being’s existence or nonexistence is indeterminable. In other words, the lack of evidence or information in both plays makes a terminal judgment about a metaphysical existence impossible. In *Waiting for Godot*, the main evidence supporting the existence of the title character is the reappearance of the boy in both acts, where his only role is to assure Vladimir and Estragon that Godot would surely come tomorrow, even though he will return the next day to say the same thing. Such lack of evidence is even more prominent in *Endgame*, where there are no hints of life outside of the space where Hamm and Clov live.

As the state of nature is determined in both plays, the next step is to evaluate the strategies that are taken by the pairs of characters. It is important to examine the conflicting interests of individual characters in the two plays. As already stated, previous studies support the notion of incomplete characters who need a counterpart in their search for their goals (Calderwood; Bohman-Kajala; Begam). Moreover, previous investigations of the characters’ performative actions hold that their interests and aims converge when they are paired (Eisele; Nealon; Mendelytė; Brower). Therefore, phrases such as ‘the characters’



State of nature	
Indeterminate (insufficient information)	
P	Vladimir and Estragon: Search (S)
	Hamm and Clov: Don't search (S̄)
Search unavailing (1)	
No search appropriate (4)	

FIGURE 4 Payoff matrix for characters in *Waiting for Godot* and *Endgame*

strategies’ and ‘Person’s strategy’ in the present paper refer to the paired characters.

With the nature of P being determined in both *Waiting for Godot* and *Endgame*, we need to place them in the payoff matrix to analyze the payoffs characters receive based on their choices and the context of each play. Given that P is the only player with active decision-making powers in the Search Decision, and the consideration of Superior Beings in both plays as passive states of nature, the payoffs for the plays’ characters are as displayed in Figure 4.

In *Waiting for Godot*, Vladimir and Estragon are in a state of anticipation, as the title of the play conveys. This sense of anticipation is intensified with the appearance of Pozzo and Lucky and of the boy who tantalizes the duo by saying that Godot would come the next day. However, the characters’ anticipation is not passive, as the action of waiting is taking its toll on them throughout the two acts. For instance, as the boy prepares to leave the scene in the first act, Vladimir’s last sentence gives the hint of an impending existential crisis:

VLADIMIR. Tell him ... (he hesitates) ... tell him you saw us. (Pause.) You did see us, didn't you?

The situation is intensified greatly when in the second act, the boy tells Vladimir that he did not see him yesterday:

VLADIMIR. Tell him ... (he hesitates) ... tell him you saw me and that ... (he hesitates) ... that you saw me. (Pause. Vladimir advances, the Boy recoils. Vladimir halts, the Boy halts. With sudden violence.) You're sure you saw me, you won't come and tell me tomorrow that you never saw me!

Therefore, Vladimir and Estragon are waiting for Godot despite insufficient information to prove such a figure exists. When their decision to wait is put within Brams's framework of Search Decision, they get the worst (1) payoff. Their waiting, in other words, is pointless.

On the other hand, Hamm and Clov show explicitly in their dialogue that they are not waiting for a savior figure. Clov's search for something outside the window and his questionable siting of a small boy toward the end of the play, for instance, seem to arise from the duo's loneliness in the apocalypse. Further, Hamm displays his firm disdain for all forms of existence in 'the without' by saying: "Outside of here it's death!" (*Endgame*).

Moreover, Hamm and Clov's conversations are filled with the desire to 'end' their present condition, as exemplified by their words at the near-end of the play:

CLOV. Then one day, suddenly, it ends, it changes, I don't understand, it dies, or it's me, I don't understand that either.

[...]

HAMM. Moments for nothing, now as always, time was never and time is over, reckoning closed and story ended.

Therefore, Hamm and Clov's strategy in Brams's Search Decision is not to search for the arrival of a metaphysical figure. The dominance of the apocalyptic setting has disillusioned the characters to the point where they cannot fathom anything beyond their present condition, causing them to stop anticipating (i.e., searching). Such a strategy gives Hamm and Clov a much better payoff (4) when compared to Vladimir and Estragon (1).

It should be noted that any alteration of the conditions outlined in each of the plays takes place over extended periods of time. As Brams contends, Person does not have a dominant strategy of searching or not searching. However, the shifting between these strategies might take years or decades. At the end of *Waiting for Godot*, it is suggested that Vladimir and Estragon might wait in the same place for years before they change their strategy and stop waiting for Godot. Moreover, it is evident at the beginning of *Endgame* that Hamm and Clov's futile interaction has been going on for some time, and the end of the play might be the final part of years of interplay between the duo.

Although the state of nature in both plays is that of indeterminable evidence for a metaphysical existence, there are differences between them that need elaboration. In his theoretical framework, Brams leaves a possibility where the Superior Being, in case he exists, can decide which state of nature he can provoke. This does not mean that he is actively taking part in a game.

Superior Being can merely choose a state that can indicate: 1) His existence is verifiable, 2) His nonexistence is verifiable, or 3) His existence is indeterminable.

In *Waiting for Godot*, the cyclical nature of the play indicates a possibility that Godot might have shifted from state 1 (verifiable existence) to state 3 (indeterminable existence). The exchange between Vladimir and Estragon shows that it is unclear whether either of them has ever met Godot. However, the reason behind their adamant anticipation might be the narratives they have heard. This view is approved by the duo's description of Godot to Pozzo upon his arrival at the scene:

POZZO. Who is he?

VLADIMIR. Oh he's a ... he's a kind of acquaintance.

ESTRAGON. Nothing of the kind, we hardly know him.

VLADIMIR. True ... we don't know him very well ... but all the same ...

ESTRAGON. Personally, I wouldn't even know him if I saw him.

Act I

Therefore, Godot can be described as a capricious figure whose choice of strategies is ambiguous (Fraser, Calderwood, Corcoran). Apart from Godot's irrationality and lack of responsibility demonstrated in the Search Decision, commentators contend that Godot can be seen as a whimsical character with no clear aim other than fulfilling his impulsive needs (Calderwood, Corcoran, Bohman-Kalaja, Scott). The significant physical and mental toll of waiting for Godot and the lack of reward or payoffs for this behavior correspond to Godot's lack of a functioning retribution policy along with the inability to make a logical judgment.

The state of nature in *Endgame* also shows that evidence is lacking to confirm metaphysical existence. However, the dominant despair within the play and the characters' overt declaration of God's nonexistence ("HAMM. The bastard!! He doesn't exist.") indicate that the state of indeterminable existence has been unchanged for a long time (perhaps for centuries). Such a view is confirmed by Massoud (2016), who points to Beckett's attempt in *Endgame* to depict the grim consequences of a world without God. In other words, the blunt expression of God's nonexistence and man's disillusionment with the possibility of the arrival of a savior has driven the world to its final stage.

Lastly, Hamm's ambivalent behavior towards God's existence further underscores Beckett's tendency to suspend meaning amid the harshness of *Endgame's* bleak setting. Hamm's praying to God and yet shouting "He doesn't exist!" is not, in any way, substantial evidence of belief in metaphysical exis-

tence in the play. It does, however, convey a sense of undecidability which further confirms the categorization of the state of nature in the play as “indeterminable existence” within the framework of Search Decision.

The analysis of payoffs in Search Decision for the two plays shows a significant difference in terms of payoffs received by the characters. Vladimir and Estragon receive the worst (1) payoff in Search Decision by being constantly—and illogically—occupied with Godot whose existence is indeterminable and does not show care and awareness toward them. Hamm and Clov, on the other hand, choose to respond to the state of nature in *Endgame* with disdain and lack of belief. Hence, *Endgame* features players who make equally logical decisions to receive their best possible payoffs (4) considering the surrounding context.

To address the philosophical treatment of a possible Superior Being in *Waiting for Godot* and the consequence of its absence in *Endgame*, we need to refer to Brams (2018) who encourages a combination of two views on the relationship between Superior Being and Person: 1) a traditional, religious view where Superior Being is the ever-dominant, omnipotent force and 2) as a game between Superior Being and Person where both assume strategies to fulfill their preferences, and both are prone to making mistakes (168). In other words, the following section of the paper uses the results from Search Decision to determine the absence of a metaphysical figure in both plays in the light of Brams’s definition of Superior Being.

The first play to be analyzed based on the dual viewpoints on Superior Being is *Waiting for Godot*. In the traditional, religious view of the relationship between Superior Being and Person, it can be said that Vladimir and Estragon are directly influenced by Godot, a capricious and manipulative figure who prefers to be as obscure as possible by not revealing himself. Brams contends that a Superior Being, in the religious sense, always claims center stage and thrives on interfering with the affairs of human beings (1988, 170). Moreover, he uses proxies and mediums to constantly upset the expectations of human beings, but never partakes actively in a relationship with them to maintain his unpredictability.

Brams adds that not all decisions made by the religious Superior Being are whimsical, as there can be deeper psychological and strategic reasons for some of his actions that—on the surface—seem obscure (1988, 170). He points out that, from the religious viewpoint, Superior Being constantly adjusts his reward and retribution policy to maintain a balance between the acts of human beings and his responses (170–171). In particular, the Superior Being in the Old Testament gained side benefits from having a logical retribution policy: instead of destroying the world in its entirety and wiping out the human race, he opted

for demonstrating his superiority by exerting his decisions and preferences on human beings (171).

When viewed within the aforementioned framework, Godot seems to be following a similar strategy: he only gives enough reasons and signs for Vladimir and Estragon to believe that he would arrive at last, but never allows himself to overtly expose himself or show any sign of care. In particular, he seems to find pleasure in keeping Vladimir and Estragon occupied with the illusion of his arrival, especially when both of them are so insistent on searching (S in the Search Decision) for Godot.

However, Godot's behavior does not fully comply with the actions of God in its strict religious sense. In his book, Brams (2018) further elaborates on the fairness and justice of God in religion and compares it to that of Superior Being. Although Brams considers Superior Being to be more interactive and less omnipotent than the God represented in religious texts, he must still consider the consequences of his decisions to avoid possible retaliation. As the player with dominant strategies and unchanging preferences, the Superior Being can impose judgments and punishments that are at odds with the nature of the crime, or even simply out of his impulse.

The results of Search Decision, however, show the exact opposite on Godot's part: not only does he refuse to reveal himself, he also fails to see the consequences of imposing the heavy physical and mental toll of waiting on Vladimir and Estragon. As mentioned earlier, such behavior highlights Godot's capriciousness, his lack of a clear aim and of a functioning retribution policy, his inability to make logical judgments, and his lack of responsibility and care, which are at odds with the religious notions of God.

On the other hand, the state of nature in *Endgame* cannot be definitively ascribed to the work of a metaphysical figure or Superior Being. In particular, Beckett insisted on the inhuman features of *Endgame* in his correspondence with Alan Schneider to avoid the misunderstandings about *Waiting for Godot* and the tendency to identify the title character with God (2011, 628). At the same time, as previously mentioned, some commentators have postulated that he wanted to explore a world without God. Similarly, the outcome of the Search Decision in *Endgame* in the present paper presupposes that the state of nature was changed long ago owing to the lack of evidence for the existence of a Superior Being.

## 4 Conclusion

The analysis of *Waiting for Godot* and *Endgame* in the present paper using game theory led to the conclusion that the characters' interactions are based on cogent responses to the enigmatic states of nature within the plays. In examining the two plays from the standpoint of Steven J. Brams's notion of Search Decision, an elaboration of Pascal's wager, it became clear that, in terms of payoff, Vladimir and Estragon find themselves in a considerably worse situation than Hamm and Clov. Unlike the pair's failure, in the earlier play, to take into account Godot's indeterminability as a savior figure, the duo in *Endgame* adopts strategies that result in the best payoff for them in the face of uncertainties about the existence of a Superior Being. The later play can be viewed as a corrective to the tendency to identify Godot with the traditional notion of God, a mistaken view in light of this absent character's multiple failings, capriciousness, and lack of concern for the wellbeing of his creatures. In both plays, the existence or nonexistence of a Superior Being is indeterminable.

## Glossary

<b>Game Theory:</b>	The empirical study of interactions and their results based on the strategies chosen by the counterparts.
<b>State of Nature:</b>	The status of Superior Being as an unchanging "state" rather than a player with changing strategies.
<b>Person:</b>	Any individual or human who initiates a game with Superior Being.
<b>Search Decision:</b>	An elaboration on Pascal's wager by Brams where God's existence can be confirmed, denied, or indeterminable.
<b>Superior Being:</b>	A metaphysical figure who—unlike the religious notions of God—is prone to making mistakes and has limited powers of omnipresence and omnipotence.

## Works Cited

- Athanasopoulou-Kypriou, Spyridoula, "Samuel Beckett beyond the Problem of God," in *Literature and Theology* 14.1 (2000), 34–51. doi:10.1093/litthe/14.1.34
- Bair, Deirdre, *Samuel Beckett: A Biography* (London: Vintage, 1990).
- Beckett, Samuel, *Waiting for Godot* (London: Faber, 2006).

- Beckett, Samuel, *Endgame* (London: Faber, 2009a).
- Beckett, Samuel, *The Letters of Samuel Beckett, Volume II 1941–1956*, ed. George Craig, et al. (Cambridge: Cambridge UP, 2011).
- Begam, Richard, “How to Do Nothing with Words, or *Waiting for Godot* as Performativity,” in *Reading Modern Drama* (2012), 138–167. doi:10.3138/9781442661486-008
- Bohman-Kalaja, Kimberly, “Playing the Spectator while Waiting for Godot,” in *The Princeton University Library Chronicle* 68.1–2 (2007), 465–487. doi:10.25290/prinuniv-librchro.68.1–2.0465
- Brams, Steven J., *Biblical Games: Game Theory and the Hebrew Bible* (Cambridge, MA: MIT Press, 1980).
- Brams, Steven J., *Divine Games: Game Theory and the Undecidability of a Superior Being* (Cambridge, MA: MIT Press, 2018).
- Brower, Emily R., “The earth is extinguished, though I never saw it lit’: The Dissolution of Genesis in Samuel Beckett’s *Endgame*,” in *SBT/A* 32.2 (2020), 352–364.
- Bryden, Mary, “Beckett and Religion,” in *Palgrave Advances in Samuel Beckett Studies*, ed. Lois Oppenheim (Houndmills: Palgrave Macmillan, 2004), 154–171.
- Calderwood, James, “Ways of Waiting in *Waiting for Godot*,” in *Modern Drama* 29.3 (1986), 363–375. doi:10.3138/md.29.3.363
- Corcoran, Paul E., “Godot Is Waiting Too: Endings in Thought and History,” in *Theory and Society*, 18.4 (1989), 495–529. doi:10.1007/bf0013643
- Eisele, Thomas D., “The Apocalypse of Beckett’s *Endgame*,” in *Cross Currents*, 26.1 (1976), 11–32.
- Fraser, George S., *The Modern Writer and His World* (London: Penguin, 1972).
- Massoud, Mary M., “Beckett’s *Endgame*: A Twentieth-Century Parable,” in *The Canadian Journal of Irish Studies* (2016), 236–248.
- Kumar, K.J., “The Chess Metaphor in Samuel Beckett’s *Endgame*,” in *Modern Drama* 40.4 (1997), 540–552. doi:10.3138/md.40.4.540
- Lawley, Paul, *Waiting for Godot: Character Studies* (London: Continuum, 2008).
- Mendelytė, Atėnė, “Cracking the Beckettian Profound of Mind in *Endgame* with Game Theory,” in *Symbolism 19: Beyond Mind*, ed. Natasha Lushetich (Berlin: de Gruyter, 2019), 73–92. doi:10.1515/9783110634952-004
- Nealon, Jeffrey, “Samuel Beckett and the Postmodern: Language Games, Play and *Waiting for Godot*,” in *Modern Drama* 31.4 (1988), 520–528. doi:10.3138/md.31.4.520
- Scott, Alan, “A Desperate Comedy: Hope and Alienation in Samuel Beckett’s *Waiting for Godot*,” in *Educational Philosophy and Theory* 45.4 (2012), 448–460. doi:10.1080/00131857.2012.718149
- Shobeiri, Ashkan, “Beckett’s Atheism in *Waiting for Godot* and *Endgame*: A Proof for Absurdism,” in *International Journal of Humanities and Social Science*, 1.21 (2011), 289–294.