

The Self-Appointed Jury: Punitive Sentiment And Prosocial Aggression In Christie's Orient Express

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Abstract

This study presents a biocultural analysis of Agatha Christie's *Murder on the Orient Express* (1934) through the theoretical lens of Literary Darwinism. While traditional scholarship often focuses on the novel's formalist "puzzle-box" structure, this research explores the underlying evolutionary pressures that drive its unconventional resolution. By utilizing key concepts such as inclusive fitness, altruistic punishment, and reciprocal altruism, the article argues that the narrative functions as a cognitive simulation of ancestral justice.

The findings reveal that the "Armstrong Circle" operates as a surrogate kinship unit responding to a catastrophic fitness insult—the murder of a child. The collective execution of the predator, Cassetti, is analyzed as a biological correction triggered by an evolved punitive sentiment when formal legal structures fail. Furthermore, the study interprets Hercule Poirot's final acquittal of the killers as a biocultural compromise, where the detective's "modular mind" recognizes the validity of proximal biological imperatives over distal social laws. Ultimately, this research suggests that the novel's enduring global popularity stems from its profound alignment with the fundamental evolutionary heritage and moral intuitions of the human species.

Keywords: literary darwinism, inclusive fitness, altruistic punishment, biocultural compromise, cheater detection, fictive kinship

Introduction

The enduring popularity of the "Golden Age" detective novel often lies in its portrayal of a world where moral equilibrium is restored through the intervention of a hyper-rational sleuth (Kramnick, 2011). However, Agatha Christie's *Murder on the Orient Express* (1934) presents a profound departure from this formula, culminating in a resolution where the detective, Hercule Poirot, chooses to suppress the truth in favor of a "higher" justice. This study analyzes Christie's masterpiece through the lens of Literary Darwinism, a theoretical framework that integrates literary concepts with a modern evolutionary understanding of the adapted characteristics of human nature (Carroll, 2011; Kramnick, 2011). By examining the

novel as a "biocultural" artifact, we can uncover how the narrative's central conflict resonates with deep-seated evolutionary imperatives regarding kinship, reciprocal altruism, and collective punishment (Boyd, 2009; Easterlin, 2012).

Central to this Darwinian reading is the concept of inclusive fitness, or the biological drive to ensure the survival of one's genetic and social kin (Birch, 2017). The murder of Daisy Armstrong serves as the catalyst for the novel's plot, a crime so "abominable" that it triggers a massive, coordinated response from individuals spanning various social strata. From an evolutionary perspective, the Armstrong household represents a "kinship group" whose fitness was catastrophically compromised by Cassetti's predation. The

subsequent conspiracy of twelve passengers is a manifestation of altruistic punishment—a behavior evolved to maintain social cooperation by removing "cheaters" who violate fundamental species norms (Petersen et al., 2012; Raihani & Bshary, 2019).

Furthermore, the novel explores the tension between proximally motivated instincts and distally adaptive structures such as the rule of law. Casseti, whom Poirot describes as a "wild animal" looking through the "respectable" "bars" of his cage, represents a predatory threat that the modern legal system failed to neutralize (Christie, 1934). When the "cage" of civilization breaks down in the isolation of a snowdrift, characters revert to an ancestral mode of justice designed for small-scale societies (Petersen et al., 2012). The "perfect mosaic" of the crime mirrors the ancestral human reliance on collective action to overcome powerful threats. By situating the novel within this evolutionary framework, we can understand why the acquittal of the guilty remains emotionally satisfying to the human "adapted mind" (Boyd, 2009; Carroll, 2011).

Review of Previous Studies

The critical reception of *Murder on the Orient Express* has transitioned from early formalist appreciations of its "puzzle-box" structure to complex psychological and sociological interrogations. Central to this evolution is the application of Literary Darwinism, which seeks to ground literary analysis in the biological realities of human nature, specifically the evolved mental architectures that govern social behavior (Carroll, 2011).

Early scholarship on Christie primarily focused on the "fair play" rule of detective fiction. However, as Knight (2003) argues, Christie's work often functions as a mediation on social stability. In *Orient Express*, the resolution—where Poirot allows the twelve killers to go free—has long been viewed as a subversion of the genre's traditional legalistic conclusion. Grella (1970) noted that the "detective novel is a protective ritual," yet through a

Darwinian lens, this ritual is seen not just as a social construct but as an expression of punitive sentiment, an evolved psychological mechanism designed to eliminate "free-riders" or social predators (Petersen et al., 2012).

Literary Darwinists like Joseph Carroll (2011) and Brian Boyd (2009) posit that stories are "fitness-enhancing" because they allow humans to simulate social scenarios and reinforce the values necessary for group survival. Previous studies using this framework have emphasized that "human nature" is not a blank slate but a set of predispositions (Easterlin, 2012). In the context of Christie, recent scholars have begun to move away from seeing the twelve passengers as mere plot devices, instead viewing them as a coalition.

The motive of the group—avenging the kidnapping and death of Daisy Armstrong—is a textbook example of inclusive fitness and kin selection theory (Birch, 2017). Hamilton's (1964) foundational work on kin selection suggests that individuals are evolutionarily predisposed to incur costs to help those with shared genetic interests. While the twelve passengers are not all biological kin to Daisy, they represent what Darwinian critics call a "fictive kinship" or a "biocultural group." The intense emotional response to the death of a child is a universal human constant (Gottschall, 2008), and Christie leverages this biological imperative to justify a collective act of "prosocial aggression."

Another significant area of study involves reciprocal altruism and the evolution of cooperation. Trivers (1971) argued that for cooperation to thrive, "cheaters" (those who take benefits without paying costs) must be punished. In *Orient Express*, Casseti (Ratchett) is the ultimate cheater; he bypassed the legal system through bribery, effectively "escaping justice".

Theoretical work by Tooby and Cosmides (1992) on the "adapted mind" suggests that when formal institutions fail to punish such transgressors, humans revert to "ancestral"

justice systems. Scholarship by Sugiyama (2001) on the "foraging" origins of narrative suggests that stories often serve as a warning against social predators. The "perfect mosaic" of the twelve wounds inflicted by twelve different people serves as a symbolic representation of multi-level selection, where the group acts as a single organism to purge a toxin from the social body.

While traditional critics focus on the "whodunnit" aspect, the Darwinian perspective shifts the focus to "why we care." Current research suggests that the satisfaction readers feel at the end of the novel, despite the lack of a legal trial, is due to the narrative satisfying our evolved sense of retributive justice (Boyd, 2009). The gap in existing literature remains a specific, line-by-line Darwinian analysis of the "Armstrong circle" as a surrogate biological unit, which this study intends to address.

Research Gap and Objectives of the Present Study

Despite the extensive body of scholarship surrounding Agatha Christie's *Murder on the Orient Express*, a significant research gap exists in the intersection of structuralist narratology and evolutionary psychology. Most traditional critiques of the novel focus on its "puzzle-box" mechanics or its commentary on the failures of the interwar legal system (Knight, 2003). While these analyses address the *how* and the *social context* of the crime, they frequently overlook the *biological why*—the underlying evolutionary pressures that make the characters' radical actions and Poirot's subsequent acquittal of them feel "just" to a global audience.

Current Literary Darwinist scholarship has successfully analyzed universal themes in Victorian realism and Romantic poetry, but it has rarely been applied to the "Golden Age" detective genre in a sustained, systematic way (Carroll, 2011). Specifically, there is a lack of research exploring how Christie utilizes the modular mind—the evolutionary theory that

the human brain consists of specialized mechanisms for social exchange and predator detection—to manipulate reader empathy (Tooby & Cosmides, 1992). The "Armstrong Circle" is often discussed as a social unit, but it has not been sufficiently analyzed as a surrogate kinship group responding to a catastrophic loss of inclusive fitness (Birch, 2017). There is a need to move beyond seeing the twelve stabs as a clever plot device and instead view them as a manifestation of altruistic punishment—a biological imperative where individuals incur personal risk to eliminate a social parasite (Raihani & Bshary, 2019).

The primary objective of this study is to provide a comprehensive Literary Darwinian analysis of *Murder on the Orient Express* to determine how evolutionary motives drive the narrative's resolution. The specific objectives are as follows:

To analyze the "Armstrong Circle" through the lens of Kin Selection Theory: This study will examine how Christie constructs a diverse group of passengers—varying in class and nationality—into a cohesive biological unit motivated by the defense of "kin" (represented by the victim, Daisy Armstrong), thereby demonstrating the power of inclusive fitness over traditional social boundaries (Birch, 2017).

To evaluate the character of Cassetti as a "Social Predator": Using the framework of Reciprocal Altruism, the study aims to show how Cassetti's "cheating" of the legal system triggers an evolved punitive sentiment in the protagonists, shifting the narrative from a legal trial to an ancestral "blood feud" (Trivers, 1971; Petersen et al., 2012).

To investigate Poirot's final decision as a Biocultural Compromise: The study will explore how Poirot's choice to suppress the truth reflects a reconciliation between distal legal structures and proximal biological instincts for justice, suggesting that Christie's resolution satisfies the reader's "adapted mind" (Boyd, 2009).

By fulfilling these objectives, this research seeks to bridge the gap between biological

science and literary art, arguing that the novel's enduring power resides in its alignment with the fundamental evolutionary heritage of the human species.

Methodology

This study employs a qualitative hermeneutic approach grounded in the theoretical framework of Literary Darwinism. The primary methodology involves a "biocultural" textual analysis of Agatha Christie's *Murder on the Orient Express*, interpreting character motivations and narrative structures as expressions of evolved psychological adaptations (Carroll, 2011).

The analysis is conducted through three analytical stages:

1. Selection of Evolutionary Paradigms: The study identifies specific Darwinian constructs relevant to the text, primarily Kin Selection Theory (Hamilton, 1964) and Altruistic Punishment (Trivers, 1971).
2. Character Categorization: Characters are mapped not by social class, but by their "fitness interests" and relationship to the central "kinship unit" (the Armstrong family), analyzing how their cooperation overcomes the "free-rider" problem posed by Cassetti.
3. Synthesis of Bio-Narratology: The study examines the resolution of the novel to determine if the "poetic justice" delivered aligns with the adapted mind's preference for retributive cooperation over formal, failing legal systems (Boyd, 2009; Petersen et al., 2012).

By integrating biological principles with close reading, this methodology seeks to explain the universal cognitive appeal of Christie's work, moving beyond culturally specific interpretations to identify the species-typical patterns underlying the narrative.

Data Collection

The data collection process for this study involves a systematic extraction of textual evidence from Agatha Christie's *Murder on the Orient Express* (1934),

treated as the primary dataset. Following the principles of biocultural criticism, the data is not limited to plot points but includes character archetypes, linguistic markers of emotional distress, and behavioral patterns that align with universal human motives (Carroll, 2011; Gottschall, 2008).

The data collection is organized into three distinct categories:

Kinship and Group Identification Data: We identify and document the specific roles each of the twelve passengers held within the Armstrong household (e.g., the governess, the nurse, the chauffeur). This allows for an analysis of inclusive fitness and "fictive kinship," where non-biological members of a social group act with the same protective intensity as genetic relatives (Birch, 2017).

Predatory Behavior and Victimization Metrics: Data is collected regarding the character of Cassetti (Ratchett), specifically focusing on his "cheating" of the social contract—his use of wealth to bypass the legal system after the kidnapping of Daisy Armstrong. This evidence is crucial for demonstrating the evolutionary trigger of punitive sentiment (Petersen et al., 2012).

Moral Sentiment and Resolution Data: The final dialogue and Poirot's internal deliberation are analyzed to capture data on "prosocial aggression." We specifically collect instances where characters describe the murder as a "sentence" or an act of "justice" rather than a crime.

By systematically gathering these textual markers, the study creates a robust empirical foundation to analyze how Christie's narrative architecture maps onto the adapted mind (Tooby & Cosmides, 1992). This structured approach ensures that the interpretation of the novel is grounded in observable literary data rather than subjective impressionism.

Data Analysis

The data analysis phase of this study utilizes a biocultural interpretative framework to evaluate the textual evidence extracted from *Murder on the Orient*

Express. The analysis moves beyond the "whodunnit" mechanics to explain the psychological resonance of the narrative's resolution. This process is structured around three core evolutionary pillars: the restoration of inclusive fitness, the execution of altruistic punishment, and the resolution of biocultural conflict.

The first stage of analysis examines the "Armstrong Circle" as a specialized biological unit. From a Darwinian perspective, the characters' diverse social backgrounds—ranging from the Princess Dragomiroff to the valet, Masterman—are secondary to their shared "fictive kinship" (Birch, 2017). The data shows that each member's motivation is rooted in the "abominable" disruption of a nursery (the death of Daisy Armstrong), which represents a catastrophic loss of reproductive and social investment. We analyze how the text emphasizes "the loyalty of the servants" and the "devotion" of friends as proxies for kin-directed altruism, where the survival of the group's moral legacy supersedes individual safety (Hamilton, 1964; Carroll, 2011).

Next, the analysis focuses on the character of Cassetti (Ratchett) as a "free-rider" who violated the social contract by escaping legal consequences through bribery. Using Social Exchange Theory, we analyze the twelve stab wounds as data points representing a "perfect mosaic" of collective justice (Tooby & Cosmides, 1992). In evolutionary biology, altruistic punishment occurs when individuals incur a personal cost (the risk of execution for murder) to punish a transgressor for the benefit of the wider group (Raihani & Bshary, 2019). The analysis demonstrates that the passengers' actions are not "lawless" in a Darwinian sense; they are a highly regulated "sentence" carried out by a "self-appointed jury" to restore social equilibrium.

Finally, the analysis interprets Poirot's decision to offer a "false" solution to the police as a reconciliation of the modular mind. Poirot's internal conflict represents the tension between the modern,

distal "rule of law" and the ancestral, proximal "impulse for retribution" (Boyd, 2009; Petersen et al., 2012). The data reveals that Poirot's "honour to retire from the case" is a recognition that the passengers' "primitive" justice aligns more closely with human biological predispositions than a failed judicial system. This synthesis suggests that the novel's enduring popularity stems from its ability to satisfy the reader's evolved moral intuitions regarding fairness and group defense.

Results and Discussion

Results

The results of this Literary Darwinian analysis of *Murder on the Orient Express* reveal that the novel's enduring psychological impact is rooted in its alignment with evolved cognitive mechanisms. The data suggests that the narrative functions as a biocultural simulation of ancestral justice, where the "facts" of the case correspond to the activation of specific mental modules: kin-selection, predator detection, and collective punitive sentiment.

The first significant result of the analysis concerns the "Armstrong Circle" as a surrogate kinship unit. Literary Darwinism posits that humans have evolved psychological mechanisms to favor kin, an adaptation known as inclusive fitness (Hamilton, 1964). In the novel, the victim, Daisy Armstrong, represents a total loss of genetic and reproductive potential for the Armstrong family.

The data reveals that Christie meticulously reconstructs this "broken" fitness landscape by assembling twelve individuals who, while not all biologically related to Daisy, function as a cohesive "fictive kinship" group. The group includes various social roles—the governess (Mary Debenham), the nurse (Greta Ohlsson), the cook (Hildegard Schmidt), and the valet (Masterman)—all of whom express a level of grief and protective fury typical of parental or fraternal investment.

The results show that the "twelve stabs" are not merely symbolic of a jury; they represent the collective effort of a social organism to respond to a "kinship insult." In evolutionary terms, the characters are acting to restore the moral "fitness" of the Armstrong legacy. Linda Arden's (Mrs. Hubbard's) final plea—"I would have stabbed that man twelve times willingly... he was responsible for my daughter's death"—serves as the primary evidence for this biological drive. The intensity of the characters' cooperation, despite their disparate backgrounds, confirms that shared emotional and social investment in a "child" (the ultimate symbol of genetic continuity) creates a bond stronger than the "distal" laws of the state (Carroll, 2011; Birch, 2017).

The second major finding relates to the character of Cassetti (Ratchett). In Darwinian terms, Cassetti is identified as a "social predator" or a "cheater." Social Exchange Theory suggests that for cooperation to evolve, humans must possess a highly developed "cheater-detection module" (Tooby & Cosmides, 1992). The analysis of Cassetti's backstory—specifically his escape from justice through "enormous wealth" and "legal technicalities"—identifies him as a parasite on the social body. He has taken the benefits of living in a civilized society while violating its most fundamental taboo (the murder of a child/kin). The "Results" indicate that the passengers' revulsion toward Ratchett, even before they know he is Cassetti, is an expression of this evolved predator detection. Poirot himself notes that Ratchett's face possessed a "wild animal" quality hidden behind a "respectable" mask.

The data suggests that the "crime" on the train is actually a biological "correction." Because Cassetti "cheated" the formal legal system, he triggered an ancestral "punitive sentiment" in his victims. In small-scale ancestral societies, when a predator became too dangerous to be handled by one person, the group would form a coalition to eliminate the threat

(Petersen et al., 2012). The results show that the Orient Express, stalled in a snowdrift and isolated from the "civilized" world, becomes a microcosm of this ancestral environment.

A pivotal result of this study is the categorization of the murder as an act of altruistic punishment. Evolutionary biology defines this as a situation where individuals punish a transgressor at a personal cost to themselves, even if they gain no direct benefit (Raihani & Bshary, 2019).

The twelve passengers represent a "multi-level selection" model. By each taking part in the stabbing, they distribute the moral and legal risk across the group. The analysis of the wounds—ranging from "slight" to "mortal"—indicates that the focus was not on the individual act of killing, but on the collective "sentence." The results demonstrate that the satisfaction the reader feels when the twelve killers are revealed is due to the narrative fulfilling our evolved preference for retributive justice.

The data further shows that the number twelve is not accidental. It invokes the cultural concept of a "jury," but Darwinian analysis reveals it as a "coalition of the willing." This coalition solves the "free-rider" problem of punishment; by everyone participating, no single person is the "executioner," and the group reinforces its internal bonds through a shared violation of the external "law" to satisfy an internal "biological law" (Boyd, 2009).

Finally, the results address the "Poirot Paradox"—why a man dedicated to "order and method" would allow murderers to walk free. The analysis indicates that Poirot's decision is a manifestation of biocultural compromise.

Poirot's "modular mind" recognizes two distinct truths. The first is the "distal" truth of the law (the second theory he offers to the police), and the second is the "proximal" truth of human nature (the first theory of the lone assassin). By choosing the "false" solution, Poirot acknowledges that the passengers' "primitive" justice is, in this

specific biological context, more valid than the "civilized" law that let Cassetti go free.

The results show that Poirot's final line—"I have the honour to retire from the case"—is an act of prosocial deception. He suppresses the truth to protect the fitness of a cooperative group (the twelve passengers)

against a failed social structure. This resolution resonates with readers because it aligns with our evolved "lay intuitions" about justice, which often favor the protection of the "victimized kin group" over the abstract "rule of law" (Petersen et al., 2012; Easterlin, 2012).

Summary of Results

The following table summarizes the key biocultural findings:

Textual Element	Evolutionary Construct	Narrative Function
The Armstrong Circle	Inclusive Fitness / Kin Selection	Reconstitution of a protective social unit.
Cassetti / Ratchett	Cheater / Social Predator	Trigger for evolved punitive sentiment.
The Twelve Wounds	Altruistic Punishment	Collective removal of a social parasite.
The Snowdrift	Ancestral Environment	Isolation that allows "biological justice" to override "civilized law."
Poirot's Silence	Biocultural Compromise	Satisfaction of the reader's "adapted mind."

In conclusion, the results of this study suggest that *Murder on the Orient Express* is not merely a "whodunnit" but a "whydunnit" that taps into the fundamental evolutionary heritage of the human species. The novel succeeds by dramatizing the triumph of biological imperatives—kinship, cooperation, and the punishment of predators—over the fragile constructs of modern jurisprudence.

Discussion

The results of this study demonstrate that Agatha Christie's *Murder on the Orient Express* functions as more than a sophisticated technical exercise in detective fiction; it is a profound exploration of the biological underpinnings of justice, kinship, and social cooperation. By applying the framework of Literary Darwinism, we can move beyond traditional formalist critiques to understand the novel as a "biocultural

artifact" that mirrors the evolved cognitive architecture of the human species (Carroll, 2011). The discussion focuses on three primary theoretical pillars: the adaptive logic of kin-directed revenge, the evolutionary necessity of altruistic punishment, and the "Poirot Paradox" as a reconciliation of the modular mind.

One of the most striking findings of this analysis is the way Christie constructs the "Armstrong Circle" to mirror an ancestral kinship group. Traditional literary analysis often views the diverse group of passengers—ranging from the aristocratic Princess Dragomiroff to the common valet Masterman—as a social microcosm of the interwar period. However, through a Darwinian lens, these social distinctions are secondary to their shared "inclusive fitness" interests (Hamilton, 1964).

The murder of Daisy Armstrong represents a "fitness catastrophe." In

evolutionary terms, the investment of parental and social resources in a child is the most critical driver of human behavior (Boyd, 2009). When Cassetti destroys that investment, he does not just commit a crime; he inflicts a biological wound on the entire social unit. The "Results" indicate that the characters' motivations are driven by kin-directed altruism. While not all are blood relatives, they form what biocultural critics call "fictive kinship" (Birch, 2017). The governess, the nurse, and even the family's chauffeur behave as though they have a direct genetic stake in the victim.

This explains why the characters' grief remains so potent years after the event. The "adapted mind" does not process the death of a child as a mere historical fact; it processes it as a permanent loss of group potential (Tooby & Cosmides, 1992). Christie's brilliance lies in her ability to trigger this universal biological response in the reader, making the subsequent "illegal" act of murder feel like a necessary biological correction rather than a transgression.

The second major point of discussion concerns the character of Cassetti (Ratchett) as the ultimate "free-rider." In any cooperative social system, "cheaters"—individuals who take the benefits of social living while violating the rules—pose a significant threat to group survival (Trivers, 1971). Evolutionary psychology suggests that humans have evolved specialized "cheater-detection modules" to identify and neutralize these individuals (Tooby & Cosmides, 1992).

Cassetti is the quintessence of the social parasite. He used the "civilized" legal system (bribery and technicalities) to escape the very justice that system was designed to provide. From a Darwinian perspective, when formal institutions fail to punish a predator, the "punitive sentiment" of the group is activated (Petersen et al., 2012). This sentiment is an evolved adaptation designed to maintain social order in small-scale societies.

The "mosaic of malice"—the twelve stab wounds—is a physical representation of altruistic punishment. In evolutionary biology, individuals who punish "cheaters" at a personal risk (such as the risk of being caught and hanged) provide a benefit to the entire species by removing a predatory element (Raihani & Bshary, 2019). The discussion posits that the readers' "moral satisfaction" at the novel's end is not a sign of bloodthirstiness, but rather a reflection of an evolved preference for seeing "fairness" restored through collective action. Christie's setting—a train isolated by a snowdrift—acts as a laboratory where the "distal" laws of the state are stripped away, leaving only the "proximal" biological laws of the ancestral environment.

Perhaps the most significant contribution of a Literary Darwinian reading is the explanation of Hercule Poirot's final decision. For a character defined by "order and method," the choice to suppress the truth and allow twelve murderers to go free seems contradictory. However, this study argues that Poirot's choice represents a sophisticated reconciliation of the modular mind.

Evolutionary theorists like Steven Pinker (1997) and Joseph Carroll (2011) argue that the human brain consists of various "modules" that handle different social problems—one for detecting cheating, one for protecting kin, and another for maintaining social hierarchies. Poirot, as a "hyper-rational" observer, is able to weigh the "distal" social requirement of the law against the "proximal" biological requirement of justice.

The "first theory" Poirot offers the police (the lone assassin who escaped) is a "prosocial deception." By offering this solution, Poirot protects a cooperative group of individuals who have acted to remove a threat to the species. The discussion suggests that Poirot recognizes the "Armstrong Circle" as a high-functioning cooperative unit that should not be destroyed by a rigid, failing legal system. This reflects a biocultural compromise: the

acknowledgment that while laws are necessary for large-scale societies, they must occasionally yield to the fundamental moral intuitions that allowed the human species to survive in the first place (Easterlin, 2012; Petersen et al., 2012).

Finally, this analysis has broader implications for how we understand the "Golden Age" of detective fiction. Critics have often dismissed Christie's work as "middlebrow" or "mechanistic." However, a Darwinian analysis suggests that her work is deeply rooted in the "deep structure" of human nature. The "whodunnit" is essentially a hunt for a "cheater," and the "sleuth" is a specialized tool for restoring the group's "fitness landscape."

he results of this study suggest that Christie's enduring global popularity is due to her ability to tap into these universal biological themes. Whether a reader is in London, Tokyo, or New York, the evolutionary drive to protect children, punish predators, and cooperate with kin remains the same. *Murder on the Orient Express* remains her masterpiece because it presents the ultimate "evolutionary dilemma": what do we do when the laws of the "tribe" (the biological group) conflict with the laws of the "state" (the cultural construct)? By siding with the tribe, Christie—and Poirot—satisfy the "adapted mind" of the reader.

Conclusion

This study has demonstrated that the enduring global resonance of Agatha Christie's *Murder on the Orient Express* is not merely a product of its ingenious plot construction, but a result of its deep alignment with the evolved cognitive architecture of the human species. By applying a Literary Darwinian framework, the research has moved beyond traditional formalist and sociological critiques to uncover the biological imperatives that drive the narrative's resolution. The analysis confirms that the novel functions as a biocultural simulation of ancestral justice, satisfying the moral intuitions of the

"adapted mind" by prioritizing group survival and kin protection over abstract legalism.

The findings indicate that the "Armstrong Circle" operates as a specialized kinship unit—or a "fictive kinship" group—motivated by the drive to restore inclusive fitness following a catastrophic predatory event. The collective execution of Cassetti is not a "crime" in the evolutionary sense; rather, it is a highly regulated act of altruistic punishment. By distributing the risk among twelve participants, the group successfully neutralizes a "social parasite" or "free-rider" who had bypassed formal legal structures. This act of prosocial aggression serves a vital evolutionary function: the maintenance of social cooperation through the removal of an unrepentant threat to the community.

Furthermore, the "Poirot Paradox"—the detective's decision to suppress the truth—is revealed as a sophisticated biocultural compromise. Poirot's resolution reflects a reconciliation of the modular mind, where the distal requirements of modern jurisprudence are secondary to the proximal biological imperatives of retributive justice. The snowbound train acts as a metaphorical ancestral environment, stripping away the "bars" of civilization and allowing for a "biological correction" that resonates with readers across cultural boundaries.

Ultimately, this research suggests that the "Golden Age" detective genre is deeply rooted in the "deep structure" of human nature. The "whodunnit" mirrors the ancestral hunt for social cheaters, and the detective serves as a specialized cognitive tool for restoring a group's fitness landscape. *Murder on the Orient Express* remains a masterpiece because it dramatizes the ultimate evolutionary dilemma: the conflict between the laws of the state and the laws of the tribe. By favoring the latter, Christie provides an emotionally satisfying resolution that honors the fundamental evolutionary heritage of the human species, affirming that great literature is inextricably linked to our biological reality.

References

- Birch, J. (2017). The inclusive fitness controversy: finding a way forward. *Royal Society Open Science*, 4(7), 170335. <https://doi.org/10.1098/rsos.170335>
- Boyd, B. (2009). *On the Origin of Stories: Evolution, Cognition, and Fiction*. Belknap Press of Harvard University Press.
- Carroll, J. (2011). *Reading Human Nature: Literary Darwinism in Theory and Practice*. SUNY Press.
- Christie, A. (1934). *Murder on the Orient Express*. Collins Crime Club.
- Easterlin, N. (2012). *A Biocultural Approach to Literary Theory and Interpretation*. Johns Hopkins University Press.
- Gottschall, J. (2008). *Literature, Science, and a New Humanities*. Palgrave Macmillan.
- Grella, G. (1970). Murder and Manners: The Formal Detective Novel. *Novel: A Forum on Fiction*, 4(1), 30–48.
- Hamilton, W. D. (1964). The genetical evolution of social behaviour. I & II. *Journal of Theoretical Biology*, 7(1), 1–52.
- Knight, S. (2003). *Crime Fiction since 1800: Detection, Death, Dread*. University of Pennsylvania Press.
- Kramnick, J. (2011). Against Literary Darwinism. *Critical Inquiry*, 37(2), 315–347. <https://doi.org/10.1086/657295>
- Petersen, M. B., Sell, A., Tooby, J., & Cosmides, L. (2012). To punish or repair? Evolutionary psychology and lay intuitions about modern criminal justice. *Evolution and Human Behavior*, 33(6), 682–695. <https://doi.org/10.1016/j.evolhumbehav.2012.05.003>
- Pinker, S. (1997). *How the Mind Works*. W. W. Norton & Company.
- Raihani, N. J., & Bshary, R. (2019). Punishment: one tool, many uses. *Evolutionary Human Sciences*, 1, E12. <https://doi.org/10.1017/ehs.2019.12>
- Sugiyama, M. S. (2001). Food, Foraging, and the Form of Story: A Polymathic Model of Narrative Literacy. *Evolution and Human Behavior*, 22(4), 221–240.
- Tooby, J., & Cosmides, L. (1992). *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*. Oxford University Press.
- Trivers, R. L. (1971). The Evolution of Reciprocal Altruism. *The Quarterly Review of Biology*, 46(1), 35–57.