

A Virtue Ethics Analysis of the Collapse of FTX

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By

Alexandros Pfoser

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

ADVISOR

Benjamin J. Laugelli, Assistant Professor, Department of Engineering and Society

Introduction

In late 2022, the cryptocurrency exchange FTX collapsed and filed for Chapter 11 bankruptcy, catching many by surprise (Yaffe-Bellany, 2022). Subsequent investigations uncovered a multitude of shady dealings and mismanagement of customer funds. Key figures were brought to trial, and several criminal cases remain unresolved. Due to a significant amount of alleged criminal activity, much of the focus on the case has centered around the morality and legality of the actions taken by FTX's leaders. Surprisingly, there has been little discussion about the character of crucial actors involved, outside of FTX's CEO, Sam Bankman-Fried. By continuing to focus on the criminal actions of the associated parties and minimizing discussion about their character and displayed virtues, future engineers miss out on the opportunity to analyze the traits exhibited by morally corrupt engineering leaders, akin to those found at FTX. Examining the downfall of FTX through the lens of virtue ethics allows for a structured analysis of the characters involved. This analysis will illustrate that leaders at FTX did not behave in a virtuous manner, failing to display cardinal engineering virtues, and that the lack of virtues of each party contributed to magnifying the flaws of their peers, ultimately leading to one of the most significant financial scandals in recent times. Briefly, virtue ethics emphasizes the development of positive character traits such as honesty, integrity, courage, and fairness, that are then used to make ethical decisions (Hursthouse & Pettigrove, 2023). To facilitate this analysis, I will incorporate testimony from the trial of Sam Bankman-Fried and first-hand accounts from individuals closely associated with the investigated parties.

Background

FTX was founded in 2019 by Sam Bankman-Fried and Gary Wang ("Rise and Fall of Crypto Exchange FTX," 2022). At its peak, the exchange serviced over one million users and

ranked as the third-largest cryptocurrency exchange globally (“Rise and Fall of Crypto Exchange FTX,” 2022). Much of FTX’s reputation had been built on celebrity endorsements, including partnerships with Stephen Curry and Tom Brady. In late 2022, a heightened sense of risk in the cryptocurrency space, specifically with FTX, led to a cryptocurrency "bank run," revealing an \$8 billion deficit in FTX’s balance sheets (“Rise and Fall of Crypto Exchange FTX,” 2022). CEO Sam Bankman-Fried has since taken responsibility for the scandal and is currently awaiting sentencing on federal charges. Co-conspirators Caroline Ellison and Gary Wang have entered into government cooperation agreements in the hope of avoiding significant prison time (Goswami, 2022).

Literature Review

The collapse of FTX is an extensively covered subject. After all, millions of people lost their money in what many refer to as the largest financial scandal since the fall of Bernie Madoff. Research on the topic focuses on how the collapse happened. It delves into the specific rules that were broken and/or exploited by the leadership at FTX, investigating rule violations and identifying those responsible for the misuse of customer funds. While this research is undeniably important, it has limitations as it fails to answer perhaps the most crucial question of all: Who did it? What kind of characters came together to break the rules? Examining FTX’s leaders through the lens of virtue ethics provides for a much more nuanced understanding of the scandal.

In their paper on the collapse of FTX, authors Conlon, Corbet, and Hou discuss the relationship between Alameda Research and FTX. In their analysis, they suggest that this relationship “played a significant role in the growth of FTX” but also “may have violated regulations” (Conlon et al., 2024). The authors emphasize that even prior to the criminal indictments against FTX executives, the company was “under investigation by the [SEC]”, over

whether it “offered unregistered securities” (Conlon et al., 2024). Overall, the company was constantly under “regulatory scrutiny” (Conlon et al., 2024). The authors effectively convey their point – FTX broke the rules, slowly at first, then all at once. This allowed them to take risks using customer funds, which ultimately did not pay off and led to the company's collapse.

In a similar analysis, authors Fu, Wang, Yu, and Chen ("authors") delve into the intricate details of what they characterize to be the FTX Ponzi scheme. By utilizing customer funds, the leaders at FTX were able to take risks and hedge their bets using their own fabricated cryptocurrency, the FFT token (Fu et al., 2022). The token served as collateral, and once its value began to diminish, the company started to unravel (Fu et al., 2022). The analysis presented in this paper mirrors that discussed above. While Conlon et al focus on the violations committed by FTX, both papers examine how the company managed to undertake such a substantial amount of risk and how that risk ultimately led to its demise.

By limiting itself to examining the rule breaks and illegal acts committed by FTX, current scholarship fails to explore the virtues and character exhibited by the leadership at FTX. Using virtue ethics, it is possible to gain a better understanding of the characters that led to the collapse, not only the rule breaks that did. This approach would allow for a more comprehensive assessment of the ethical dimensions involved in the FTX scandal, shedding light on the personal motivations, virtues, and moral choices that played a pivotal role in the company's downfall.

Conceptual Framework

To better understand the dynamics behind the FTX scandal, virtue ethics will be used to examine the moral character of the actors involved. By employing virtue ethics, this analysis can expand beyond the rule-based analysis currently available. Virtue ethics is an ethical theory that focuses on the character of the entity making a decision rather than the decision itself. While

duty ethics emphasizes the rules governing a decision, virtue ethics looks at what a "virtuous" person would do in a given situation (Hursthouse & Pettigrove, 2023). The theory traces its origins to Plato and Aristotle in the West and Confucius and Mencius in the East (Hursthouse & Pettigrove, 2023). In virtue ethics, a virtue is a trait that contributes to eudaimonia, an Ancient Greek term often translated to mean "happiness" or "well-being" (Hursthouse & Pettigrove, 2023). Virtue ethics argues that people do not inherently possess virtues; instead, virtues are learned through practice and example. A virtue is generally understood to be the mean between two vices. For instance, a virtuous person is courageous, avoiding both cowardice and recklessness. Other common virtues include prudence, honesty, and justice.

Virtues are situational, and to holistically examine the collapse of FTX through virtue ethics, we must first determine the criteria, the virtues, by which we will judge the actors' character. Since all the leaders at FTX were engineers, it is fitting to assess them based on a subset of virtues most applicable to engineers. This leads to the question: which virtues are most applicable to engineers? Fortunately, engineering virtues are an active field of research in the ethics community. Dr. Kenneth McDonald has proposed the following four cardinal virtues for engineers:

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| <ol style="list-style-type: none">1. Justice: giving to another what is their due2. Honesty: not to lie, steal or deceive anyone by any means3. Fortitude: ability to face something that scares us4. Phronesis: capacity of knowing and enacting the right course of moral action |
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Figure 1. Cardinal Virtues for Engineers

In his paper, McDonald emphasizes that the above four virtues are desirable traits in an engineer. He states that these virtues were specifically chosen because they are not limiting (McDonald, 2022). Each of these virtues extends "its influence on the control of other virtues" (McDonald, 2022).

Through the lens of virtue ethics, specifically considering the four cardinal virtues for engineers shown above, I will delve into the characters of Sam Bankman-Fried, Caroline Ellison, and Gary Wang, the main actors responsible for the collapse of FTX. Tracing their actions throughout the scandal, I aim to determine whether they adhered to the virtues described above and whether they exhibited virtuous behavior or were morally corrupt. Ultimately, I will examine how the combination of their virtues or lack thereof, magnified each other's moral faults, exacerbating the collapse of FTX.

Analysis of Sam Bankman-Fried

Sam Bankman-Fried (“SBF”), the CEO of FTX at the time of its collapse, failed to display any of the four cardinal virtues of engineers and, by extension, behaved in a non-virtuous way during the scandal. Perhaps the most damning piece of evidence against Mr. Bankman-Fried is his own words during his testimony. In a grueling eight-hour cross-examination, SBF admitted to not only mismanaging customer funds but also lying about the state of those funds entirely. During his testimony, SBF indicated that he was worried about the “potential run on the bank” after FTX withdrawals increased by 100% to \$1 billion per day in early November (Research, 2023). Despite his concerns and instead of taking steps to rectify the situation, he chose to be dishonest and tweeted, “FTX is fine. Assets are fine,” in an attempt to deceive his own customers (Research, 2023). Through this piece of testimony, we see that SBF failed to display virtues of honesty, as he lied to customers in his tweet, and phronesis, as he chose an immoral course of action in this particular situation. Moreover, it is incredibly difficult to argue that SBF acted justly in any shape or form. After all, his company collapsed due to an \$8.7 billion shortfall in customer funds, and as of February 2024, customers still have not been able to access the money they once deposited in his exchange. Lastly, SBF failed to display the virtue of fortitude. When

he began to realize that FTX was facing a liquidity problem, he chose not to address rumors about it and instead tweeted, “A competitor is trying to go after us with false rumors” (Research, 2023). When confronted with the evidently alarming issue of a lack of liquidity, he once again chose to lie rather than confront the problem directly. A leader possessing the virtue of fortitude would have approached the situation differently. In the face of a liquidity problem, a leader with fortitude would have acknowledged the challenges openly and transparently. Instead of resorting to deceit and deflecting blame, they would have demonstrated the strength to address the issue head-on, reassuring stakeholders with a commitment to finding solutions.

Sam Bankman-Fried’s own testimony fails to cast him in a positive light, particularly when considering his role as an engineer and executive. Through his own words, it becomes evident that he exhibited none of the four cardinal virtues for engineers as put forth by McDonald. While some might argue that taking responsibility for FTX’s problems after it filed for bankruptcy showcases the virtue of fortitude, the timing of his acknowledgment raises doubts. He only accepted responsibility after FTX filed for bankruptcy, embarking on a kind of press tour to bolster his image just prior to his indictment. The federal government had initiated an investigation into him and FTX on November 9th, and it is likely that he knew a damning indictment was imminent (“Rise and Fall of Crypto Exchange FTX,” 2022). His display of courage came after people had already lost their money—not before, not during, but after his fate and the fate of his customers was all but sealed.

Analysis of Caroline Ellison

Of course, SBF did not act alone; much like her co-conspirators, Caroline Ellison failed to fulfill the role of a virtuous engineer and executive, specifically failing to exhibit the four cardinal virtues expected of an engineer. Caroline Ellison is the former CEO of Alameda Research, a trading firm affiliated with FTX which received over \$10 billion of FTX customer funds to cover its losses in the market. After initially being arrested on charges similar to SBF's, she became a government witness in hopes of securing a lenient sentence. Most notably, Ellison failed to demonstrate the virtues of honesty and justice due to the nature of the crimes she committed. In her own testimony, she confirmed that she, along with others, engaged in "fraud, conspiracy to commit fraud, and money laundering" (Bekiempis, 2023). An honest and just person would refrain from accepting customer funds to cover business losses, especially if there was no guarantee that the funds would be returned in the future. Given the association of fraud with dishonesty, it is fair to characterize Ms. Ellison as both dishonest and unjust.

During her testimony, Ellison also confessed to manipulating records in order to present a more favorable financial image of her firm to lenders and external advisors (Bekiempis, 2023). Despite acting under SBF's direction, her failure to advocate for a different, more morally upright course of action raises questions about whether she possesses the cardinal virtue of phronesis. A virtuous engineer and executive would have, at the very least, made an effort to transparently disclose their business's unfavorable financial situation, rather than resorting to deceptive practices.

Ellison's actions and decisions also bring into question her possession of the virtue of fortitude, a quality crucial for leaders and engineers, particularly in navigating challenging situations. The misuse of customer funds and manipulation of financial data suggest a lack of

fortitude in facing the difficulties her firm encountered. A leader with fortitude would confront adversity directly, seeking solutions that align with ethical principles and industry standards. Instead, Ellison's involvement in illicit activities, such as diverting funds and manipulating spreadsheets, reveals a willingness to take the path of least resistance, even if it means compromising ethical standards.

Analysis of Gary Wang

Transcripts from both his witness testimony during SBF's trial and his arraignment reveal that Gary Wang did not conduct himself as a virtuous engineer during his tenure as Chief Technical Officer of FTX, failing to exhibit any of the four cardinal virtues expected of engineers: justice, honesty, fortitude, and phronesis. Gary Wang, a longtime friend and colleague of SBF, served as the CTO of FTX while the fraud was taking place and was responsible for many of the technical systems that facilitated illegal transactions between FTX and Alameda Research. Much like Caroline Ellison, shortly after being arrested on federal charges of fraud, Wang entered into a cooperation agreement with the government in the hope of receiving a lighter sentence.

During his arraignment, following a guilty plea to all four counts, Wang stated that during his time as the engineering director at FTX, he "agreed to make certain changes to the platform's code" (W. Zixiao, December 19, 2022). This statement refers to modifications that allowed Alameda Research, Ellison's struggling trading firm, to withdraw money from the exchange even if it did not have enough balance. Alameda could maintain a negative balance on the exchange when no other customer could, and this was all made possible by Gary Wang's code (W. Zixiao, December 19, 2022). Wang's actions in granting Alameda special privileges do not reflect those of an honest or just engineer. Despite not being the primary orchestrator behind the commingling

of customer funds, Wang, who was directed by SBF to implement these changes, still had the ability to voice concerns or refuse to make the alterations. A few minutes later, during the same arraignment hearing, Wang is asked if he knew "what [he was] doing was wrong and illegal." He responds that he did, in fact, know that his actions were illegal (W. Zixiao, December 19, 2022). In Wang's situation, a virtuous engineer would exhibit the virtue of phronesis. Although Wang was aware that his actions were both immoral and illegal, he still proceeded with them, failing to choose the right course of moral action. Despite being aware of the wrongful and illegal nature of the modifications, Wang demonstrated a failure in fortitude by succumbing to SBF's directives and implementing changes that compromised ethical standards. True fortitude would have required him to withstand external pressures, voice objections, or refuse to participate in actions that he knew to be both morally and legally wrong.

Analysis of FTX

Before concluding my analysis of the collapse of FTX, I wanted to explore the environment created by the three leaders at FTX and how the absence of virtues exhibited by them paved the way for the company's downfall. John J. Ray III, the current CEO of FTX, described the organization's state as "an utter failure of corporate controls at every level" (Schwartz, 2022). SBF's extremely reckless and "risk-prone behavior" prompted Gary Wang to implement code allowing the "commingling of assets" (Schwartz, 2022). Ellison's lack of fortitude during her firm's financial distress led to Alameda borrowing funds held at FTX "without effective limits" (Schwartz, 2022). Gary Wang's failure to demonstrate the virtue of phronesis resulted in "senior management" having unrestricted access to "systems that stored customer assets," which lacked security controls to prevent the "[redirection of] those assets"

(Schwartz, 2022). Ultimately, their collective deficiency in all four of the cardinal engineering virtues resulted in their customers being unable to access \$8.7 billion worth of their own money.

Many of the actions committed by the three actors examined were grounded in the ethical theory of utilitarianism. Ellison, in her testimony, highlighted that rules such as "[do not] lie" and "[do not] steal" did not align with Sam Bankman-Fried's moral framework; instead, the only rule that held significance was prioritizing "the greatest good for the greatest number of people" (Brodkin, 2023). Both SBF and Ellison were strong proponents of effective altruism, a theory that evaluates actions based on their ability to maximize overall well-being (Brodkin, 2023). By embracing these theories, leaders at FTX essentially gave themselves the freedom to act according to their own discretion, without a specific focus on virtues or the development of virtuous characteristics.

All of the evidence presented above underscores the importance of virtue ethics in analyzing the collapse of FTX. Understanding the character of its orchestrators is more important than comprehending the rules they broke. While laws and regulations will be amended and the cryptocurrency space will become more heavily regulated following the company's collapse, individuals with similar characters will still find themselves in positions of power where they can inflict damage on the rest of society.

Conclusion

FTX did not collapse due to lax rules and regulations surrounding the cryptocurrency space. Instead, the morally corrupt characters of its leaders came together to create an environment where failure was the only option. An analysis using virtue ethics reveals that during their time as leaders in the cryptocurrency space, Sam Bankman-Fried, Caroline Ellison, and Gary Wang failed to exhibit any of the cardinal virtues of engineers as put forth by

McDonald. Each of them failed to be honest and just, lacking both fortitude and phronesis. Their actions deliberately and continuously went against their customers' interests, as they themselves have admitted. Understanding that it was the character of the actors who broke the rules that mattered most, instead of the rules being broken, will allow readers to identify future such scenarios before they escalate into crises. The analysis of the collapse of FTX through the lens of virtue ethics serves as a reminder that ethical engineering leadership, grounded in the cardinal virtues of honesty, justice, fortitude, and phronesis, is paramount for the stability and integrity of any organization.

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