

Using Care Ethics to Examine the Samsung Galaxy Note 7 Explosion/Recall Case

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

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Introduction

The Samsung Galaxy Note 7 was a smartphone released on August 19, 2016 by the South Korean electronics company, Samsung Electronics (Seifert, 2016). However, only after a month of the smartphone's release, there were 35 reported cases of the Samsung Galaxy Note 7 exploding and Samsung announced an emergency suspension of sales and informal recall of the mobile device. Samsung stated that issues with the phone's battery cells from a specific set of suppliers were the main cause of the explosions (*[Official Statement] Galaxy Note7*, n.d.). Samsung then re-released the phone with batteries from a different manufacturer, but these replacement models still failed, resulting in Samsung to announce a second sale suspension and recall, officially discontinuing the Galaxy Note 7 (*Samsung Will Ask*, 2016). However, even after the second recall there were numerous further cases of the phones exploding, resulting in the phone's ban from all United States airlines by the U.S. Department of Transportation (*DOT Bans*, n.d.).

The media has criticized Samsung over many aspects of the recall process, most of the criticism being due to the lack of transparency from the company itself. The main criticism is that Samsung initially announced their own recall program without coordination and approval from the United States Consumer Product Safety Commission (CPSC). (Fried, 2016) Furthermore, investigation revealed that Samsung instructed the Korean Testing Laboratory (KTL), a third party verification body, to only conduct tests on the battery of the mobile device instead of examining the entire phone. (<국감현장> 산자위, n.d.)

While these criticisms stay true, the media seems to overlook the urgent and chaotic circumstances during the time of the recall process. Samsung had to respond quickly to the

explosions, which could put the device's owners in danger. Additionally, due to the initial batch of replacement models failing again, Samsung had to be extra cautious when revealing the issues of the mobile device to the general public without substantial investigation and evidence. If we neglect such moral dimensions, then we could miss the sense of moral responsibility and obligation to ensure public wellness that Samsung sustained throughout the recall process. Through the use of care ethics and Tronto's framework of Attentiveness, Competence, Responsibility and Responsiveness, I will explore the morality of Samsung's actions to determine whether Samsung fulfilled the virtues of care ethics.

Background

The United States Consumer Product Safety Commission (CPSC) is the part of the United States government in charge of regulating the safety of consumer products through evaluating products, coordinating recalls, developing safety standards, and promoting research and investigations (*15 U.S. Code § 2051*, n.d.). Thus, all companies conducting recalls such as Samsung must receive approval from the CPSC. In fact, in order to even use the word "recall" in the first place, all companies are required to receive approval from the CPSC. However, the CPSC is a relatively small agency and works with outside parties for assistance with resources and expertise (*Safety Standard for Bassinets and Cradles*, 2013).

The Korean Testing Laboratory (KTL) is part of South Korea's Ministry of Trade, Industry, and Energy that is responsible for testing the safety and functionality of consumer products. They are also in charge of certifying products for export. They are the only public institution in South Korea that has the technology and expertise available to test modern industrial technology. According to their website, "the KTL is focused on promoting the latest

and greatest technology with a strong responsibility through clear communication while abiding laws and principles.” They also state that their main vision is to “improve the quality of life of the people and enhance industrial competitiveness” (한국산업기술시험원, n.d.).¹

Literature Review

There is little to no scholarly papers or research done not only on the technological aspects, but also on the ethical and social aspects of this relatively recent engineering disaster. Therefore, in addition to reviewing literature directly related to the Samsung Galaxy Note 7 recall case, I will also be reviewing literature on other case studies related to recalls of consumer technology.

Stephan argues that, given the disastrous nature of the situation, Samsung handled the situation very well. He makes three main points to support his argument: “Samsung acted quickly,” “Samsung acted decisively,” and “Samsung told the truth” (Stephan, 2017). Stephan praises Samsung’s efficient reporting system and the upper management’s clearness, where they did not try to deny their mistakes at first. Samsung was the first to announce the number of affected devices were in the initial reports, even before the media and other outlets could report themselves. They were clear and quick to admit to their wrong doings and did not hesitate to report the statistics and results from their investigations. Furthermore, Samsung’s offer to not just replace the battery (which was thought to be the main problem at the time), but to replace the entire device with a new one was decisive and proved that Samsung actually cared about the comfort and convenience of the consumer. Stephan also refers to Samsung’s transparency as

¹ Author’s translation from Korean

“refreshing corporate behavior compared to the way some firms have handled recall problems,” acknowledging that Samsung’s actions were well above the standard compared to others.

Jung and Ham analyzes the causes of failure of the Samsung Galaxy Note 7 through the use of two failure analysis techniques, Root Cause Analysis and Fault Tree Analysis. They argue that trying to pinpoint a single cause of a failure is very difficult, and this cause will not be purely technological but encompass other non-engineering related issues such as cultural and social ones (Jung & Ham, 2017). Jung and Ham first explore the technological issues that may have caused the failure. The first issue is related to the size and capacity of the battery. Thanks to the previous generation of Galaxy phones moving from a removable battery to an non-removable one, Samsung was able reduce the thickness and weight of their phones while increasing the capacity of the battery. The authors suggest that the reducing the size of the phone while increasing the capacity of the phone caused unwanted stress and overheating of the battery. Similarly, the authors argue that the waterproofing of the phone resulted in the decrease of physical space inside the phone, which, in turn, reduced the cooling capacity of the battery. Next, Jung and Ham list the possible non-technological causes of failure. The original Samsung Galaxy Note was the world’s first phablet, a mobile device of a size between a regular smartphone and a tablet; however, in 2016, phablets became the norm and other competitors, such as Apple, had already released their own competitors to the Galaxy Note series. To take advantage of lack of competition in the first quarter of the year, Samsung changed the release date of the Galaxy Note series to before the release date of Apple’s iPhone. Jung and Ham believe that this resulted in a shorter development period, and thus Samsung had less time to test the battery of the Galaxy Note 7. Another proposed point of failure is the brash and unprepared nature of the initial recall

process. Jung and Ham argue that Samsung failed to identify the actual point of failure of the explosions and instead should have conducted a more careful and precise investigation before releasing the second batch of phones.

While these scholars focus on both the technological and social aspects of the case, none focus on the morality of Samsung's handling of the case. Stephan praises the decisiveness and transparency of Samsung's recall process, but neglects to mention any criticism and wrong doings of Samsung. On the other hand, while Jung and Ham aim to find the possible causes of failure and effectively explore points of criticism, they lack any analysis of the morality of Samsung's actions during the recall process. Evidently, there is a significant lack of scholarly literature on the ethics of the Samsung Galaxy Note 7 explosion and recall case; therefore, I will focus on exploring the morality of Samsung's handling of the incident.

Conceptual Framework

Care ethics is an effective method to analyze the morality of Samsung's handling of the explosions of the Galaxy Note 7, because every single decision that Samsung made throughout the recall process relates to the social and ethical obligation and relationship that Samsung has with their consumers.

Care ethics, originally inspired by the American ethicist and psychologists, Carol Gilligan, is an ethical theory that emphasizes the importance of relationships and holds care or benevolence as a central virtue (van de Poel, 2011). It is a type of normative ethical theory, meaning that it seeks to examine standards for the morality of actions and regulate what is right and wrong conduct, which in the case of care ethics, would be based on the care for others (*Ethics*, n.d.).

One of the most directly applicable aspects of care ethics to engineering is the importance of empathetic caring. It is important to understand the distinction between sympathy and empathy. Sympathy is just feeling bad for someone and empathy is to feel what someone else feels (Campbell, 2016). Thus, for one to feel empathy, they must proactively seek to understand the emotions that the other person is going through a specific context.

Joan Tronto offers a framework for care ethics, which describes care ethics as four interrelated elements of care: Attentiveness, Responsibility, Competence, and Responsiveness. Attentiveness requires the caregiver to be aware of the needs of others. Responsibility requires the caregiver to assume action and take responsibility for their involvement in the care relationship. Competence requires the caregiver to meet the objective (care) with enough adequacy. Finally, responsiveness requires the caregiver to consider the problems of inequality and vulnerability in the care relationship.

It may seem that engineering is not as caring of a profession compared to other more people-centered professions, such as medicine and law. In fact, the general American public's perception of engineers are significantly poor compared to other professions. However, the one case where caring, especially empathetic caring, is most evident in engineering is with product recalls, because companies go out of their ways to provide their customers with further support even far after the sale of the product. The motivation for a company to announce a recall could be due to public image, but in respect to care ethics it is due to the company's virtue to care for their consumers' health and safety.

Samsung was not the only actor in the recall process, as the CPSC and KTL were also involved in the process as well. Thus, in addition to the ethical framework, I will apply the

problem of many hands to explain the difficulty in pinpointing one specific party as the one morally responsible for an outcome when multiple parties are involved in a process.

To explore the morality of Samsung's actions during the recall process through care ethics, I will first establish the relationship between Samsung and the consumers who purchased a Galaxy Note 7, and then I will adopt Tronto's care ethics framework to evaluate Samsung's duty of care.

Analysis of Evidence

Once their flagship smartphone began to fail and explode after its release, Samsung quickly and effectively suspended and announced a recall on the Galaxy Note 7. The actions and decisions that they made throughout the recall process clearly shows that Samsung values and cares for their consumers, which is also well reflected by their business principle of customer satisfaction (*Business Principles*, n.d.). I argue that Samsung did more than they were required to support their consumers who purchased their defective product; therefore, they are moral based on the ethical framework of care ethics. I will support this argument by demonstrating that Samsung carried out all four of the elements for care: Attentiveness, Responsibility, Competence, and Responsiveness.

Attentiveness and Responsibility

I argue that Samsung showed attentiveness toward their consumers through their quick acknowledgement and admittance of the incident and responsibility by risking their brand image and resources. Attentiveness is essential for care ethics, since one cannot care for another without actually initially noticing and understanding the other's state of emotion and circumstances. Furthermore, the theory of attentiveness claims that neglectance and ignorance to understand

others' needs are moral failings. While attentiveness is the recognition of the need for care, responsibility requires the caregiver to take moral responsibility and assume the action of care. Tronto establishes a difference between responsibility and obligation. She states that responsibility is more ambiguous and cannot be associated with the prior actions of the caregiver, thus responsibility is morally universal compared to the contextual nature of moral obligation (Campbell, 2016).

The first reported case of a Galaxy Note 7 exploding occurred on 28 August 2016, only nine days after the release of the mobile device ([단독] “삼성 갤럭시 노트7, n.d.). On 2 September 2016, Samsung suspended all sales of the Galaxy Note 7 and announced an informal recall (*Samsung recalls Galaxy Note 7*, n.d.). At the time, this announcement was criticized by the United States government as it was revealed that Samsung did not coordinate their recall announcement with the CPSC, which is illegal. (Fried, 2016) Additionally, some media outlets criticized Samsung's vague naming of their recall program, “Product Exchange Program,” stating that Samsung was trying to hide the fact that it was a product recall. However, there are several reasons why these decisions were moral.

First, Samsung is legally unable to use the term “recall” without the approval from the CPSC. Then some will ask, ‘Why did Samsung not wait for the CPSC's approval before announcing their recall program?’ Samsung has never officially released a statement on this incident, but I will explain why Samsung's actions were moral through the care ethics theory of attentiveness. The CPSC acknowledges its small size thus it takes a relatively long time for the CPSC to approve a recall. In a similar recall case, the Toyota Vehicle Recall Crisis, it took almost a year for the CPSC to recognize the mechanical issues and call for a recall. Then it took

a further five years to complete the entire recall process (*From Lexus to Prius*, n.d.). Even the CPSC released an official statement praising Samsung's dedication for the recall. The Chairman of the CPSC Elliot F. Kaye states:

CPSC is a vital health and safety agency, but we have nowhere near the resources and people power that Samsung does. Not even close. In fact, Samsung employed more engineers and staff to work on just this issue than CPSC has employees at our entire agency. Think about that. One company dedicated more personnel to work on one safety analysis than exists at the one United States Government agency with oversight over almost all consumer product safety issues in the entire country. (*Statement from Chairman Elliot F. Kaye*, 2017)

Eventually, on 9 September 2016, Samsung announced that they have started to work with the CPSC and changed their recall program's name to, "Galaxy Note7 Safety Recall" (*Samsung Confirms Engagement*, 2016).

I believe that Samsung's actions reflect their virtues of care because they recognized the potential health and safety hazards that their product would cause to their consumers and decided that it was more important to recall the phones than to wait for the CPSC official approval. Samsung showed attentiveness for the well-being of their consumers and risked their own brand image and legality in addition to responsibility by dedicating significant amounts of resources and personnel to keep their consumers safe and happy.

Competence and Responsiveness

Samsung accomplished their ethical responsibilities of competence and responsiveness by providing their customers with generous support, information, and communication with the

intent to reduce the damage caused by their devices. Tronto's element of care, competence, specifies that merely meeting the objective set by the care relationship is not enough to be moral in care ethics. It states that the care must be done competently so that the need is met. It is also important to recognize that competence can be dependent on other factors besides the morality of the caregiver, including financial and resource deficiencies. In that case, as long as the caregiver does their best with the resources that they have, the moral failing in competence will be passed on to those who are responsible for the deficiencies.

“Responsiveness involves the reaction of the care-receiver to the care given and includes consideration of the problems of inequality and vulnerability that are present in any caring situation“ (Campbell, 2016). In other words, one can judge responsiveness by how well the caregiver can determine if the care provided is actually useful and effective for the care receiver. Responsiveness challenges the common notion of conventional ethical theories that everyone is equal, self-supporting, and entirely autonomous.

The objectives set by the care relationship between Samsung and their consumers were to protect the consumers from the explosions and provide the consumers with convenience services so they do not feel any discomfort or annoyances during the recall process. Under the terms of the Samsung Galaxy Note 7 Refund and Exchange Program in the United States, any consumer who bought the phone can either exchange their Galaxy Note 7 with another Samsung smartphone and receive a refund of the price difference between devices or obtain a full refund for the Galaxy Note 7 purchase, including purchases of any accessories (*Samsung Expands Recall*, 2016). Additionally, Samsung worked with major cellular carriers so that the consumers are not just limited to Samsung devices as replacements and are offering gift cards up to a

monetary value of \$100 (*All US carriers*, 2016). These efforts have resulted in a 97 percent recall rate globally just in the first three months of the recall process. This number corresponds to over two million devices and cost Samsung almost \$5.3 billion (Lopez, 2017). It is evident that Samsung demonstrated competence by doing their best to help and incentivise their consumers to turn in their phones to protect their consumers from any safety issues that could result from using the phone.

However, some may argue that Samsung failed to achieve competence due to the first batch of replacement Galaxy Note 7's exploding once again, but I argue that Samsung's actions of taking full responsibility and officially discontinuing the device entirely while taking massive financial losses atone for this fact (Golson, 2016).

Furthermore, Samsung did their best to notify not only their consumers in addition to the general public about the dangers of their device. Samsung sent text messages and emails to communicate the recall with their consumers. They also managed an active news report page on their official website, where they provided updates on the investigation of the causes of the explosions for the public. Samsung even sent their own employees to airports to help consumers and collect phones when the Department of Transportation (DOT) banned the Galaxy Note 7 on airplanes. These endeavors affirm Samsung's responsiveness and intentions to provide their consumers with the best knowledge as possible so that they could make the best possible, yet own decisions without forcing them to return their phones.

Acknowledgement and Response

While I argue that Samsung showed care and respect for their consumers by providing ample support and quick, transparent information and communication, some evidence of

Samsung's lack of transparency exists. One criticism of Samsung is aimed at the post-incident investigation and testing done by the Korea Testing Laboratory (KTL). According to some reports, when the KTL investigated the Galaxy Note 7 to find the cause of failure, they only tested the phone's battery; therefore, the investigation lacked significant evidence and thoroughness. During Samsung's National Audit, (analogous to a Congressional testimony in the United States) many politicians and experts criticized both Samsung and the KTL, stating that the KTL only investigated the battery as Samsung instructed them to do so. According to Korean politician Kin Byoung-gwan, since Samsung already knew that the battery was a publicly well known issue of the phone, they deliberately instructed the KTL to only test that part of the phone to hide other potential faults (박수윤, 2016). Thus, this argument states that Samsung failed to uphold their duty of care, specifically in responsibility and competence. They avoided taking responsibility for other potential faults of their design, and consequently failed to care for their consumers with competency.

However, this argument fails to understand the financial and political limitations bestowed to the KTL. The KTL, similarly to the CPSC is a relatively small organization and, on top of this fact, lacks the legal power to investigate other elements apart from what the client, in this case Samsung, requested. Furthermore, this argument ignores the fact that the KTL was not the only institution that investigated the case. In addition to the KTL, other independent industry safety inspection groups such as UL, Exponent, and TUV Rheinland conducted investigations into various aspects of the Galaxy Note 7 (*Samsung Announces Cause of Galaxy Note7 Incidents in Press Conference*, 2017). Therefore, the argument that Samsung tried to hide potential causes of the failure are invalid. In fact, I argue that Samsung fulfilled their duty of care of

responsibility and competence for their consumers by consulting with multiple globally renowned investigation firms so that the final result was not biased or baseless.

Conclusion

The case of the Samsung Galaxy Note 7 explosion and recall can be morally assessed through the normative ethical theory of care ethics. In particular, I apply the idea of empathetic caring and Tronto's four elements for care: Attentiveness, Responsibility, Competence, and Responsiveness as ethical frameworks to determine whether Samsung's actions were moral in respect with the existing relationships and circumstances at the time of the incident. Samsung clearly demonstrates all of the four elements of care by virtue of their quick and transparent admittance of the incident and holding responsibility by recalling their devices in a decisive manner while caring for their consumers. Care ethics provides an effective platform for assessing a case like this, because the fundamental nature of a product recall is strongly pertinent with the relationship between the manufacturer and consumer. This case study shows a rare example of how a corporate manufacturer can transform an engineering disaster into an engineering ethics success story through effective and moral business and engineering decisions.

Word Count: 3628

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