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Breaking the Code in the Imitation Game

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Recommended Citation

Zovko, Taylor, "Breaking the Code in the Imitation Game" (2020). *KUCC -- Kutztown University Composition Conference*. 11.

<https://research.library.kutztown.edu/comconf/2020/2020/11>

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Breaking the Code in *The Imitation Game*

Set in England at the beginning of the Second World War, Moreten Tylaum's 2014 film *The Imitation Game* tells the mostly true story of Alan Turing, an English scientist, mathematician, and logician who was apart of the team tasked with decoding the Enigma, a device that enabled the Nazi party to exchange encoded messages throughout the war. In order to ensure that their messages would remain secure, the Nazis programmed the Enigma settings to generate an entirely new code every single day, therefore giving Turing and his team a mere twenty-four hours before all of their progress would be lost and they would be forced to start over. Turing then made it his mission to create a device that would decode the messages daily, in hopes that it would make his team's work more efficient and cost effective. However it wasn't until the team realized that each incoming message repeated a certain set of information and encoded words, such as their signature sign off of *Heil Hitler*, that Turing was able to create his machine, called the Bombe, and decode Enigma. The idea behind Turing and his team's work that ultimately led to the decoding of the Enigma is mirrored in Derrida's paper, "Signature Event Context," as he discusses the iterability of language.

Derrida's "Signature Event Context" argues that all languages are iterable. In this context iterability simply means that the code must be able to be understood and interpreted by someone. In a sense, it means that the code must be repeatable. It is also the idea that, if a message is sent in a code no one understands, than it cannot be considered a language, because there is no use to a secret code if no one understands its contents. Understanding the concept of iterability is essential to understanding how and why Turing and his team were able to decode Enigma.

Although Turing did not consult Derrida and his paper while working on cracking Enigma, the ideas Derrida expressed in his paper can be seen intertwined into Turing's work

To begin, upon being invited to join the team by Commander Denniston, Turing is immediately warned about the difficulties involved in the decoding of Enigma. During their first interaction, Denniston says to Turing, "Enigma isn't difficult, it's impossible. The Americans, the Russians, the French, the Germans, everyone thinks Enigma is unbreakable" (*The Imitation Game*). However, Derrida would tend to disagree with this line of thinking. In his paper "Signature Event Context," he asserts, "Every sign linguistic or nonlinguistic, spoken or written, as a small or large unity, can be cited, put between quotation marks, thereby it can break with every given context..." (96). This insinuates that any code, regardless of language, dialect, or form can be broken. In order for a code to work in any sense, it must be able to be understood by the person who is receiving it. There is no point in sending a code that cannot be understood by the person who it is meant for.

Therefore, according to Derrida, since this code can be understood by one person, it can theoretically be understood by all. Due to the fact that the Nazis were sending these codes back and forth, it is presumed that both parties understood what was being said in the code, despite the fact that there was a new code every day. Therefore this could be taken to mean, within the context of Derrida's paper, that if everyone in the Nazi party could break the code, then so could the rest of the world, it is simply about finding the correct formula that is needed to decode it. This then makes Commander Denniston's statement obsolete, seeing as that there is no way for Enigma, or any code, to be classified as unbreakable if it is already being transmitted and understood by an individual or, in this case, an entire party of people.

Despite Commander Denniston's initial comments on the supposed unbreakable nature of Enigma, Turing works endlessly throughout the film to figure out how to create a machine that would eventually decode the Germans's messages for them. After many weeks of not solving the code, the rest of the team begins to grow frustrated with Turing, who has spent the majority of this time designing a machine that has yet to reach fruition, rather than trying to decipher the daily messages as they come in alongside the rest of his team. Following yet another day of no advancements in their efforts, the team decides to get a drink at a local bar where Hugh Alexander, a member of the Enigma team, catches sight of a young woman who also works on solving Enigma. Her job is to receive encrypted messages from the Germans and relay them to Turing, Alexander, and the rest of their team. As Alexander mercilessly flirts with the young woman, she discloses that she is upset that her German counterpart has a girlfriend for she claims that she might be in love with him, despite having never met him. Turing, confused and unbearably black and white, asks the young woman how she knows that he has a girlfriend, as she has never had a real correspondence with him. She replies that she is sure he is taken because he starts every message with the same five letters, CILLY, and she assumes that that has to be the name of his girlfriend.

This is the moment that strikes something within Turing and he immediately races back to the Enigma headquarters with the revelation that, perhaps, his machine does not need to decode every individual part of the daily messages, but instead it may only need to decode the parts that are repeated in each message. After a few minutes of searching through the individual messages, the team realizes that each German soldier writes "Heil Hitler" at the end of each message, therefore enabling Turing and his team to decode this phrase which would lead to the

decoding of Enigma. This, in turn, would qualify as the 'signifying form' that Derrida discusses in his paper. Derrida asserts that, "...a certain self-identity of this element (mark, sign, etc) must permit its recognition and repetition. Across empirical variations of tone, voice, etc., eventually of a certain accent for example, one must be able to recognize the identity, shall we say, of a signifying form" (95). Despite the fact that the Nazis speak a different language than Turing and his team, there is still a sense of iterability to this message. Furthermore, it also highlights the concept that if one person is able to break the code and, in a sense, figure out the meaning of the message, then so is anyone else. It is similar to how a typical European American would not understand the Chinese alphabet, yet that does not mean they could not learn it. However, if someone were to make up their own collection of sounds and phrases and called it a language, without explaining to anyone else how the language worked and functioned then, according to Derrida, they could consider it an actual language because it is impossible to understand. Therefore, Turing identifying the repeated phrase, Heil Hitler, at the end of each message, proved that this code, although challenging and incredibly secretive, had the ability to be decoded and understood because it was able to be understood and interpreted by other members of the Nazi Party.

To continue with this idea, Derrida also notes that, "In order to function, that is, in order to be legible, a signature must have a repeatable, iterable, imitable form; it must be able to detach itself from the present and singular intention of its production" (107), with the signature in this case being the 'Heil Hitler' at the end of each message. Regardless of the content of the message, those words still mean something. They still hold weight and tell the reader about the sender of the message. The reader now knows where the sender's allegiances lie, as well as some context

on the environment the sender is currently in. Therefore, understanding this signature is not only decodable if you understand the rest of the message, seeing as both parts are two entirely separate entities. If one part was only logical depending on the reader's understanding of the other parts, then, according to Derrida, this code would not be legible. Turing and his team would not have been able to break this code utilizing just this phrase if its meaning was not entirely separate from the content of the rest of the message.

In conclusion, seeing that Turing and his team were able to eventually decode Enigma and essentially win the war by doing so, it is evident that the ideas Derrida discusses in "Signature Event Context," in regards to the iterability of language, are clearly exemplified in *The Imitation Game* as seen by the concepts they utilized in order to decode the German messages.