How Cyborgs Define Themselves: On *Ghost in the Shell*

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**Abstract.** This article explores the influence of the interrelated relationship between machine and mankind on human subjectivity and the function of dystopian setting in the Japanese anime feature *Ghost in the Shell* (1995). The film set in the year of 2029 in Japan, and at that time human can “augmented” their physical body including their brains by engaging cybernetic parts. The heroine Motoko Kusanagi, as a cyborg with perfect physical function, starts to think about how to define herself when she is involved in a series of events concerning cyborgs. The narrative explores the subjectivity of cyborgs and how the intimate relationship with technology influence human self-awareness. The article seeks to explore the relationship between the physical body and human subjectivity and demonstrate the profound effect of the interrelated connection between machine and human on people’s self-cognition. In the use of textual analysis, the article attempts to uncover the meaning behind the identity crisis of Kusanagi in the dystopian society set in this science fiction film (SF film). In the film, although the technology confuses human on defining themselves, Kusanagi proves fully capable of cognizing herself at the end of the film. And the especial use of dystopia setting magnifies the identity crisis and enhance the desire to fathom self-identity.

**Introduction**

What distinguishes humans from machines is the “ghost” in the “shell”. In the film “ghost” refers to the consciousness inhabiting the "shell". Without the ghost, the shell cannot be regard as a human but a puppet. The film *Ghost in the Shell* is derived from a manga produced by Masamune Shirow from 1989 to 1997. It has been made into several anime versions: *Ghost in the Shell* (Oshii, 1995), *Ghost in the Shell 2: Innocence* (Oshii), a 2004 sequel to 1995’s, *Ghost in the Shell: Stand Alone Complex* (Kamiyama), a 2002–2006 anime television series, *Ghost in the Shell: Arise* (Kise), a 2013–2015 Original Video Animation (OVA) and anime television series, *Ghost in the Shell: The New Movie* (Kise), a 2015 animated film continuing from *Arise*. This article will focus on the anime film version in 1995 which discusses the identity crisis of cyborgs in a technologically advanced world.

With the rapid development of artificial intelligence (AI) in the modern society, this 1995 SF film forward-lookingly reveals the identity crisis of mankind as they are developing a more close-knit connection with machine over time. The film *Ghost in the Shell* directed by Mamoru Oshii with unique postmodernism style discusses the cyborg subjectivity using the heroine Motoko Kusanagi as a representative of human who has entwined deeply with technology. Besides, this SF film is set in a dystopian society where everyone is implanted with cyberbrain and can be controlled and hacked. In conclusion, this study aims to demonstrate how the standardization of technology impairs individualism and provokes the identity crisis for cyborgs based on the *Ghost in the Shell*.

**Human Identity**

Modern identity theories suggest that human subjectivity is defined by several representations and
revealed by continuous comparison with others, and identities are seen as social and discursive construction. Chris Barker and Dariusz Galasinski (2001) argue in *Cultural studies and discourse analysis*, the concept of subjectivity refers to the way we constitute as subjects through social process. Identity is best not understood as a fixed entity, but as constructed through discursive practice and as specific to particular social and cultural conjunctures (Barker & Galasinski, 2001). Anthony Giddens (1991) states in *Modernity and Self-Identity* that humans constantly redefine themselves by encountering and distinguishing themselves from others; therefore, human identity is continually changing. As postulated by Gergen (1996), our notions of identity arise from an emphasis on the individual, which therefore stresses separation from collective identity. To have an identity then is “to be capable of laying claim to an interior life: to one’s own reasons and opinions, to existentially defining motives, personal passions, and core traits” (p.128).

However, contradicted with human identity, technology is characterized as standardization and uniformity (Lihua, 2007); therefore, the conflict between identity and technology rises sharply in *Ghost in the Shell* (Raiteri, 2005). Due to the necessity of having an interior space in which to exercise human own identity, technology fundamentally undermines their ability to form individual subjectivity (Natasha, 2014). Although in this anime, technology can greatly problematize how a character interprets or creates his or her identity, the film still presents a view which suggests that individuals are ultimately still responsible for their own construction of identity (M. Natasha, 2014).

In 1979, Darko Suvin’s *Metamorphoses of Science Fiction* transformed science fiction studies from a fan enthusiasm into a scholarly subdiscipline. As SF film has developed for decades, the theme of dystopia has gained its central significance (Milner, 2016). There are four characteristic types of modern forms of utopia and dystopia: the paradise or hell, the positively or negatively externally-altered world, the positive or negative willed transformation and the positive or negative technological transformation. The latter two are the more characteristically dystopian modes, especially in SF film (Raymond, 1980b, p196-199).

**Methodology**

In the use of qualitative textual analysis and semiotics, this article aims to demonstrate the interrelated relationship between machine and mankind and how this intricate connection influences the human subjectivity in *Ghost in the Shell* setting in a dystopian society. Engaging in narrative semiotics or narratology, the study of basic narrative patterns and procedures, this article examines the narrative and the causes and effects of a series of events in *Ghost in the Shell* in order to find out how the film represents the impairment of technology on Kusanagi’s subjectivity, how the dystopia augments her identity crisis, and how she finally fathoms the problem. Besides, this article examines the lines, clothing, color and frame structure in several particular shots to indicate Kusanagi’s thought on her identity.

**Relationship between Human and Machine**

A cyborg is a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction. Nowadays, cyborgs, as the typical combination of human and machine, represent accurately of the intimate relationship between technology and human. In *Ghost in the Shell*, the heroine Kusanagi is a cyborg with all of her body replaced with mechanical parts including her brains while she still remains a human-like appearance with highly-sexualized body shape.
In the beginning of the movie, the protagonist demonstrates her close-knit connection with technology as she exchanging and searching for information with her partners by plugging a quadriplegic plug on her neck (see Figure 1). The film exhibits the producing procedure of Kusanagi in details in order to indicate she is a fully-formed cyborg with cybernetic parts produced by human, which is different from others who just replace several segments of their bodies. The first quarter of film using two fights with other troops which consist of ordinary humans and common cyborgs with partly replaced body to manifest the predominant physical condition of Kusanagi comparing to mankind and the dependence of human on the technology. As the members of an assault-team, two leading characters, Batou and Motoko Kusanagi, take full advantage of technology. During the fight, they capitalize on the advanced thermal-optical camouflage to avoid the opponents to find them; they make use of technology to drive speedier. Also, the advanced metabolism device in their body allows them to break down alcohol within ten seconds. However, in order to maintain their cybernetic parts and cyberbrains, they have to accept system maintenance every month. In this sense, both Batou and Kusanagi have already developed an intimate connection with technology in their daily life.

**Identity Crisis**

Although in the film humans are seemed to cooperate harmonically with technology, the relationship indeed has an impact on Kusanagi defining herself. As the background information of Kusanagi suggests in *Arise* (2013), all of her memory is fake including her perfect childhood as well as the man who brings her up, which serves as the origin of her identity crisis and the reason that she is distinctive from other cyborgs in the team. After arresting a dustman whose memory is distorted for joining a virtual experience unconsciously, Kusanagi starts to consider her identity. The discussion on human identity in this film mirrors on the arguments over “The Ship of Theseus”, which mainly probes into the question that if all the components of the ship are replaced by new ones, whether the ship is still the “Ship of Theseus”. This puzzle actually reflects the identity crisis in the film: if all of parts of physical body are superseded by machines, and if the memory of one is completely distorted or disappeared, is this human still the original one? In the film, Kusanagi’ monologue gives the answer.

It is the various aspects that constitutes a complete human. The different appearances, subconscious intonations, the childhood memory, their destiny and all the information they have received in their entire life. All of these cultivate a unique “self”, which differentiate me from all other people and give me my identity. Also, the identity limits me in the “self” (Kusanagi).

Therefore, as the technology is infiltrating into human life, the body fragments can be superseded and the memory can be distorted, it’s reasonable for Kusanagi to confuse with her identity and subjectivity. A scene that Kusanagi looks at her reflection on the glass foreshadows her identity crisis (see Figure 2). The real Kusanagi represents a virtual cyborg whose body is replaced by machine while the reflection on glass represents her ghost. The meaningful way she gazes her reflection indicates her confusion with her identity.
As Kusanagi’s monologue, the film supports the view of Giddens that a person’s identity is constantly changing and a person is defined by his or her own previous experience (1991). However, technology, characterized as standardization and uniformity, acts as an opposite of identity. Due to the conflict between subjectivity and technology, the identity crisis of Kusanagi is growing as she is developing a more interrelated relation with technology.

In the light of Barker’s definition of subjectivity which is displayed by comparing with others (2003), Kusanagi tries to explore her identity by continuous comparison with others cyborgs and humans she encounters. However, as a cyborg, she is no difference with her team members who also replace all of them body with machine. She invites a human who just reforms small part of his body to join her team in order to bring more diversity to the group, because Kusanagi believes “homoousia is a fatal drawback of a team”. And then, she arrests a puppet, and her partner Batou tells the puppet’s that it is just a shell without ghost, without unique memory and family: the puppet has no identity. This event serves as a stimulus making protagonist realize that she has no family as well as unique memory, and her “ghost” is produced by the machine just like the situation facing by the puppet.

A significant plot is Kusanagi starts to dive in the deep water. She describes that she feels loneliness, fear, anxiety, dark interlaced with hope when she buries herself in the sea. That is exactly the feeling of confusion and struggle of her identity. She is lost in the overwhelming amount of information and technology and doubts on her subjectivity; she is not sure about who she is and keeps thinking about the question. As a matter of fact, it is the moment that she manages to differentiate herself from other cyborgs and her self-awareness rises.

**Brave New Life**

The key character which intensifies but finally allows Kusanagi to get through the identity struggle is a cyborg called “the plan 2501”. 2501, a full-produced cyborg just like protagonist, claims he already has self-awareness and subjectivity and demands humans acknowledge him as an individual life rather than AI. In order to refute mankind’s argument that he is just a program consisting of thousands of numbers, he states that it is similar that DNA is just a sequence with different order of letters. The dialogue between 2501 and humans gives a profound discussion on whether AI with self-awareness can be considered as a life. 2501 believes the birth of a human and a cyborg has no difference and shares a similar opinion with Kusanagi that it is the unique memory and thoughts that forms a person rather than the origin of him or her.

The film discusses the externality of human memory by using technology: if memory can be controlled by the exterior, whether the memory can still serve as a way for humans to distinguish themselves. When the dustman is told that his former experience is all virtual, he loses his mind and has a breakdown. Kusanagi witnesses the unfortunate encounter of the man, she is touched and thinks about if her own memory is virtual and whether she is a human or not rather than Batou who
just feels sympathy. What makes her different from others is her previous experience of losing all of her memory and finding out whole of her experience is fake.

In conclusion, when human memory is threatened by technology, the intimate relation between mankind and machine indeed assimilates humans and obscures individual identity, which brings humans identity crisis.

Kusanagi realizes 2501 shares similar thought with her and manages to have a conversation with him. In order to maintain their sequence and create a new life by themselves rather than human production, as a result, they decide to blend with each other and create a brave new cyborg carrying their memories and living as another individual life. In this plot, they use the cyborg’s way to create a new ghost who will carry the memory from Kusanagi and 2501. In this sense, although the shell of Kusanagi and 2501 disappear because of the procedure of blending, their memory will maintain in a new ghost, which is the core to build self-awareness and identity. This procedure is similar with human procreation: the life is not produced but created. And the cyborg created by them can defeat perfectly the arguments appearing in film that they cannot be regarded as a individual life for they are machine-made. In conclusion, Kusanagi is ultimately responsible for her own identity construction. As film suggests, although technology impedes human identity formation, they still overcome the identity crisis and ultimately find out the memory is essential for them to build self-identity.

Function of Dystopia

The way society functions in Ghost in the Shell seems no different with the world in real life, and the world set in the movie is not a typical dystopia at the beginning of the movie. However, as the plot moves forward, when audience finds that characters are in fact forced by unwritten rule connecting with computer and replace their body with cybernetic parts. Kusanagi said in a dialogue with Batou that technology brings human high efficiency and a huge amount of convenience, which indicates refusing to accept technology means being excluded from main stream of society. In addition, because of the interrelated connection with technology, humans can be tracked and hacked by others. A female cyborg in the film, the interpreter in an important diplomacy meeting, is hacked, which means all messages saved in her cyberbrain are in danger and her brain is not a “safe place”. In order to investigate the issue, government takes charge of her brain, and enters her “ghost” to find out the problem. The scene that the interpreter lies in a laboratory and tens of wires connecting her with computer indicates she loses her subjectivity (see Figure 3).

This dystopian setting magnifies the identity crisis and enhance human desire to control themselves. Because technology can distort human memory by providing virtual experience, it is reasonable that people wonder whether truth exists. They gradually distrust their own memory which is an important source of individual experience for mankind defining themselves (Barker,
Meanwhile, the scene that the dustman is told that his life is indeed a fake experience created by technology motivates protagonist’s desire to define herself and her subjectivity.

**Conclusion**

As mankind develops an intimate relation with technology, both technology and the connection itself impair human defining themselves. Meanwhile, memory and experience become unreliable as the source to define themselves, because all of them are probably fake. The consequent identity crisis makes humans eager to define themselves. The dystopian setting in the film magnifies the identity crisis. However, in the denouement of *Ghost in the Shell*, heroine Motoko Kusanagi presents that through struggle she still can define herself as her subjectivity arises.

In conclusion, although technology can greatly influence identity construction, humans are still capable of taking charge of defining themselves. Despite being unsure of their memories, Kusanagi is able to form meaningful identity, as we see in *Ghost in the Shell*. Kusanagi’s final act in asserting her own identity is her choice to merge with the Puppet 2501. In addition, the anime proposes positive messages which can perhaps serve as an example if extended to Japanese or other contemporary societies.

**References**


