Cuadernos de Investigación Musical, 2022, (15, extraordinario), pp. 105-118
DOI: https://doi.org/10.18239/invesmusic.2022.15.10
ISSN: 2530-6847

"It's music, a human thought structure": music as a technology of cyborgs in Spanish cyberpunk films

"It's music, a human thought structure": la música como tecnología de los cyborgs en el cine cyberpunk español

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ABSTRACT

In this article, I discuss how two Spanish cyberpunk films, *Eva* and *Autómata*, imagine cyborgs and represent music as a part of their relational capacities with artefacts, entities, and environments. Through an interconnected analysis, I present the idea of musical ecology as an articulation between cyberpunk sonic conventions and pre-existing music. I refer to the idea of the posthuman subject to understand the cyborgs in these films, where sonic phenomena are an intrinsic and active agent of their construction. The main conclusion is that music is a metaphor for humanity and a channel for new modes of subjectivity that can reconfigure musical production, listening, interpretation and pleasure.

Key Words: music ecology, audiovisual representations, integrated soundtrack, cyberpunk culture, posthumanism.

RESUMEN

En este artículo, analizo cómo dos películas cyberpunk españolas, *Eva* y *Autómata*, imaginan cyborgs y representan la música como parte de sus capacidades relacionales con artefactos, entidades y entornos. A través de un análisis interconectado, presento la idea de la ecología musical como una articulación entre las convenciones sonoras del cyberpunk y la música preexistente. Otro tema es el sujeto posthumano, al que denomino ensamblaje música-cyborgs donde los fenómenos sonoros son un agente intrínseco y activo de su construcción. La principal conclusión es que la música es una metáfora de la humanidad y un canal hacia nuevos modos de subjetividad destinados a reconfigurar la producción musical, la escucha, la interpretación y el placer.

Palabras clave: ecología musical, audiovisual representaciones, banda sonora integrada, cultura cyberpunk, posthumanismo.

Malhado, A. (2022). "It's music, a human thought structure": music as a technology of cyborgs in Spanish cyberpunk films. *Cuadernos de Investigación Musical*, (15, extraordinario), pp. 105-118.

1. INTRODUCTION

Through the interconnected analysis of two films, I elucidate two aspects of the role that music and other sonic elements have in creating cyborg representations on screen. I combine recent cultural and posthuman studies with a musicological perspective to focus on music ecologies, an interconnected ensemble of agents, sonic materials, and contexts. The objective is to show how the music ecologies create incongruent and unexpected audiovisual representations of the cinematic object, resulting in ironic moments that point to the social roles of cyborgs. Additionally, I will argue that music can also be constructive and form part of cyborg subjectivities, producing and commenting on their internal and external state of consciousness inside those same contexts. The purpose is to show how the Spanish cyberpunk films *Eva* and *Autómata* present a deep music–cyborg relationship that integrates every sonic aspect into the audiovisual narrative, something not always visible in mainstream cyberpunk.

Eva is a Spanish film directed by Kike Maíllo and premiered in 2011. The story takes place in 2043 when humans have begun to develop advanced robots and to live with different machines. Álex, the protagonist, is a cybernetic engineer who, at the start of the film, returns to his hometown to take up a job offer to develop an android child at the Robotic Faculty. After reconnecting with Lana, his old lover, he starts the research using her daughter, Eva, as a test subject. The narrative reveals that Eva is the android child that Álex and Lana created

before he left the city. The film ends with the tragic event of Eva killing her mother and being shut down by Álex.

Autómata is a Spanish- and English-language film from 2014 directed by Gabe Ibáñez. The story takes place in 2044 on an environmentally devastated Earth. The main character is Jacq Vaucan, an insurance investigator for a company called ROC. The company has manufactured an android called the pilgrim to do manual labor and stop the advance of desertification, but when the company fail to achieve this the androids are segregated from humans. When an android runs counter to the unchangeable protocols that state that a pilgrim cannot repair, modify, or alter itself, Jacq begins to investigate what and who triggered it. The film traces the tensions between the journey of Jacq, a human who has been socialised to refuse posthuman subjectivity and agency in androids, and the ways that the pilgrims are represented as self-aware beings.

2. THE MUSIC ECOLOGIES FOR CYBORG REALITIES

The creation of imaginary worlds is one of the defining elements in science fiction. In science fiction films, music plays a role in the evocation of strange places (Bartkowiak, 2009, p. 1). From a musicological standpoint, soundscapes define and are produced by their spaces, agents, and objects, which means that music is an integral part of the science fiction world. Choosing the concept of music ecology provides a way to engage the relationship between subjects and their environments. Tia DeNora (2011, p. xi-xii) advocates that patterned ways of doing things with and around music forms identities and produce aesthetic ecologies. From this perspective, investigations of music-in-action provides a way to study how cyborg identities and acts are put together, signify, and change in audiovisual media ecologies. Following her argument, I consider the cluster of protagonists and how they relate to each other, the settings, materials, and the role music plays in this.

Cyborgs are defined in various ways in relation to humans, machines, consciousness, and the material world. For Sue Short (2003, p. 5), cyborgs are "machines that develop such a degree [of] sentience as to confound conventional distinctions between human and machine". This reading, based on science fiction, can benefit from a broader definition. According to Donna Haraway (2013, p. 104), the author who brought the concept of the cyborg to the social sciences in the 1980s, cyborgs are "partial connections, the parts do not add up to any whole", and they create "worlds of nonoptional, stratified, webbed, and unfinished living and dying, appearing and disappearing". The idea I want to stress is that a cyborg is not a mere body but a relationship between subjects and materials. With that in mind, if a cyborg has affinities with humans, machines, and organisms in general, they can actualize an aesthetic ecology. As I will show, connections between music and technologies create cyborgs that foreground our assumptions about the relationships and effects that the subjects have in the environment and vice versa.

To understand the use of pre-existing music in *Autómata*, I draw on academic analyses of the role that music plays in science fiction film. As I will demonstrate, a music ecology related to a cyborg creates a valuable ambiguity that enriches the representation. One reading

proposed by Schmidt (2009) is that pre-existing music builds familiarity between the audience and the object. The recognizable music articulates with things the viewer has never experienced, namely the audiovisual imaginaries produced by sounds, images, and stories. In *Autómata* there is a disparity between the pre-existing music and the score composed specifically for the film by Zacarías M. de la Riva. For example, the film uses music composed by baroque composer Handel in two scenes. The first is in the opening credits with images depicting the industrialization of futuristic robot production. The second is diegetic music heard inside the ROC headquarters, contrasting their logo "we bring you the future" with this historical piece of music. The soundtrack composed for the film employs electronic instruments and audio production effects, which makes the symphonic music of Handel feel culturally and historically out of place. This shows how pre-existing music can create moments of estrangement in science fiction because it connects the audience to another musical culture outside of cyberpunk, and can produce ambiguities in cyborg identities.

Baroque music is broadly labelled as classical music, which has been defined as being distinct from other musical practices according to a social and hierarchical scale. James Buhler (2019, p. 197) describes how the use of a symphonic and operatic repertoire in cinematic contexts represents a "colonial form of knowledge". Cross referencing musicology with post-colonialist studies, the author suggests that this has less to do with the capital value that classical music brings to the cinema or the scenes but is rather a social idea related to who produced the music. Authors like Short (2005, p. 106) similarly see the cyborg as a metaphor for the colonized, artificial, and/or partial human. The cyborg subject subscribes, by force, to a system of beliefs and values that are part of an alien social structure. In that sense, the music from Handel is related to the discourse of power exerted on the cyborgs.

Music and cinema studies have highlighted the conventions of the stereotyped use and meaning of classical music in films over the years. Jessica Shine (2021, p. 155) proposes that "classical music is often perceived as being incongruent simply for being classical. Our preconceived assumptions about classical music lead us to make visual associations with it, and these often do not extend to violence.". This argument is problematic because it assumes classical music cannot represent violence. The relevant point for cyberpunk films is the audiovisual inconsistency that classical music constructs, particularly if we consider the role played by musical conventions. Susan McClary (2000, p. 3) defined a musical convention as a "procedure that has ossified into a formula that needs no further explanation". In line with this perspective, Anahid Kassabian (2001, p. 45) argues that audiovisual culture constructs new signifying processes that are parallel to other musical practices. However, this apparent inconsistency can be productive when used as an aesthetic tool. I argue that the crossover between cyberpunk and musical conventions leads to the transposition of meanings onto the cyborg.

Cyberpunk, as a branch of science fiction, has its own conventions for constructing cyborgs. As an audiovisual practice, cyberpunk imagines the intersections between science, technology, and society. Films and other media started to consolidate a set of musical conventions for cyberpunk in *Blade Runner* (Scott, 1982) and created sonic properties to represent their main topics. The relevant terms for cyberpunk are cyborg, cyberspace, hacker, virtuality, class conflict, capitalism, and prosthetic memories. The cyborg is signified on

screen by addressing ideas of humanity, technoscience, and relationality. The concept of humanity is signified through the Hollywood tradition of representing emotions with orchestral music (Barham, 2009, p. 259), so acoustic instruments provide the human side. The technoscientific construction of the character is a metaphor for both the signifying body and the disposable artefact – a cyborg is made not born; it is a cultural process and a product of societies, and the music, electronic styles and minimalist techniques provide this nonhuman aspect (Fink, 2005, p. 45). The musical properties assigned to both the cyborg's humanity and its machine existence creates a continuum of the cyborg's positive and negative aspects, as I have detailed in a previous essay (Malhado 2021). Finally, the cyborg is never a complete or fixed entity, which means it is always relational, connected with other living or non-living materials. The use of music to represent this connection can be compared to the way the choir or choral techniques were codified in sacred Christian traditions to evoke a spiritual realm. The cinematic dispositive (Lerner, 2009, p. 528), particularly within cyberpunk aesthetics, uses musical conventions to express the cyborg's capacity to connect with the world, link with living and non-living realms and so forms a music ecology.

The two-way signifying flow from human to non-human is represented by a compositional style that relates, combines, hybridizes, and alternates musical material intended to represent different meanings. Spanish films such as *Autómata* and *Eva* position themselves inside this cultural practice, with diegetic and non-diegetic music used to produce audiovisual representations identifiable to audio-spectators. For example, in *Eva*, the focus on the orchestra creates the narrative illusion that the android is a human, and in *Autómata*, the way the choral music is highlighted stresses the androids' existential purpose and situates them inside specific religious environments. Both musical strategies try to eliminate the technoscientific quality of its protagonists, since in these stories they are segregated entities, in *Autómata* because the androids could not save humanity, and in *Eva* because of the fear expressed at the new practice of creating self-aware androids. Therefore, although conventions are followed in the way musical instruments are used, there are some specific musical associations that merit discussion.

To illustrate how the use of the orchestra and choir affect the cyborg ecologies, I want to analyze the first three sequences of *Autómata* and juxtapose the meanings created when using specially composed or pre-existing music. The film begins with images of the sun and several written sentences on the screen to give the context. There has been planetary destruction in the past and, to rebuild the cities and maintain safety, humanity has built androids with two safety protocols. The first protocol dictates that no robot can harm a life form and the second that they cannot alter themselves or another robot. The written summary states that the protocols can never be changed, for they exist to protect humans. The sound of a police car accompanies this statement, heightening the danger. This sound leads us into the first frame, where an aerial shot of a night city, acid rain, and giant holograms place the film in the context of cyberpunk. The policeman, Wallace, goes to a subway station where, in the midst of several homeless people, he finds an android that is altering itself. Shocked by the discovery, and accompanied by female choral music with an ascending melody that dramatizes the situation, the android begins to raise its hands in a gesture of

asking for forgiveness while making electronic blip sounds that are its only form of communication. The policeman ignores this plea, and the shot opens to show an enlarged camera perspective with a human pointing to the tent where the android lies. The use of choral music implies empathy and emotional connection. There is a final cadence of gunshot as the android is destroyed and then we hear relative silence as the camera focuses on the human's feet. The android head rolls along the ground for a few centimetres. After the reverberating sound of a metal plate falling to the ground, the sound of fire burning marks the beginning of the "Overture" of Handel's *Music for the Royal Fireworks Suite*. In the transition, we find an ironic comment since the sound of fire burning and crackle intertextually connect with the title of the music as if they were the fuse for a real firework.

This new sequence, which is accompanied by music and is shown before the diegetic events of the film, is made up of static images with two key features. The first is the use of black and white images to represent memories. The second is that the only movement in the images is in slow-motion, either focusing in on details or opening out to show the viewer more elements. The sequence separates two moments: the first shows images of the industrialization process and android mass production, and then, in a change of tone, we see androids that are painted, burned, and destroyed. After the final musical chord, the image fades to black, and we hear a character say: "do you know what this is? It's the fucking end of the world" (personal transcription). When the next scene opens, without music, the soundtrack is the tinkling of light bulbs. The scene starts with a standing android holding a brush in his hands. The shot focuses on the bristles of the brush, and the third frame shows a dead dog on the ground, with wrinkled paws and open eyes. During this triptych, the character who announced the end of the world explains: "All I told him was brush him. Brush Charlie. He was a good dog" (personal transcription). The dialogue, frame, and reaction of the characters seek to show the horror of the situation. The protagonist Jacq Vaucan is then introduced, and what follows is his attempt to prove that the android could not have hurt a living being, implying that the culprit may have been the child who is playing in the next room.

The articulation between the three moments, beginning with the android death, the images that reveal public opinion of the androids, and the shocking scene with the dog, establish several moments of identification where the audio-spectator alternates between empathy and revulsion toward the androids. Kassabian (2001, p. 3) explains the possibility of this strategy through what she calls an assimilated identification, where music brings with it a set of cultural meanings and the listener's individual experiences. It is impossible to provide a comprehensive analysis of the significance of music such as Handel's "Overture", which exists beyond the cinematographic object, as each audio-spectator has his/her memories and musical and audiovisual literacies. However, based on my research, it is possible to establish that one potential reading is that the first scene asks us to identify with the android's pain and suffering through the choral music that signifies a relational capacity. With the transition to Handel, the orchestral fanfare invites ambivalence, which is quickly dispelled by the dog's death. These cinematographic techniques open the possibility for contestable meanings and position cyborgs in rich ecologies.

The use of the musical signifier of the choir enables different conclusions for both films and shows how Spanish productions explore this cyberpunk convention. In the last scene of *Autómata*, the android Cleo, designed as a female prostitute, removes her gendered mask to the sound of a musical requiem. The gesture highlights the departure from the human world into the wilderness of the desert, suggesting a reconfiguration of self. Synthesizers or electronic music would have emphasized her artificiality but the orchestral music invites the audio-spectator to identify with some sense of her humanity. Unlike the android in *Autómata*, Eva is punished, in her case because she accidentally drove her mother of a cliff. During the moment when Eva becomes aware that she is artificial and becomes angry, a female choir, orchestra, and harmonic dissonance tap into her feelings of distress. Everything focuses on the dramatic moment of her mother's death. Eva is then represented as a threat to be eliminated, and her cyborg relationality is associated with the monstrosity of the unknown; the vast emptiness of the cold winter forest in which she lies is akin to the strange distant voices we hear in the music.

Both examples show an audiovisual counterpoint in which the voices represent the unconscious of the cyborgs and their relation to the uncharted places where they find themselves. Studying the idea of multiple realities, the musicologist Berthold Hoeckner (2007) reflects on the way audiovisual fragments suggest being transported from one space to another. He associates an aesthetic aspect with the way "music also gives us a lift into a realm of heightened experience" (*ibid.*, p. 164). One of the examples Hoeckner gives is a choir that transforms the diegetic world of the film, where in an "imaginary space, the singing of the choir would stand for the music of angels: disembodied and divine" (*ibid.*, p. 179). If we accept this idea, we can see these two Spanish films as a variation on the music ecologies of cyberpunk. They use the choir to connect the cyborg with a complex 'natural' habitat instead of technoscientific cities, and this means that cyborgs are geo-centered subjects (Braidotti, 2013, p. 82). In *Autómata*, the cyborg is related to an environment of peaceful discovery, in *Eva*, to one of fear and despair.

3. POSTHUMAN SUBJECTIVITIES IN MUSIC-CYBORGS

Audiovisual and narrative transformations in the androids of *Eva* and *Autómata* are deeply intertwined with music. The critical posthuman subject built "within an eco-philosophy of multiple belongings" (Braidotti, 2013, p. 49) represents an uncertain status explored by hybrid entities with deep connections to music. Against this backdrop, I want to think about another role of music: how it can be a technology of the self. As Tia DeNora (2000, p. 47) proposes, this concept "points the way to a more overtly sociological focus on individuals' self-regulatory strategies and socio-cultural practices for the construction and maintenance of mood, memory, and identity" through music. The question that grounds this discussion is what is at stake when the cyborgs present themselves in diegetic moments of music interaction. The dynamics of cyber-musicking, to adapt the concept of musicologist Christopher Small (1999), suggest that these cyborgs take part in a sociologically grounded activity. Here, spaces and technologies transform their subjectivities and those around them.

Since these androids represent threats, there is a fine line between their humanity and monstrosity. This is evident in the way the film makers use music to create tensions in posthuman subjectivities (Braidotti, 2013, p. 48). One aspect of this is how "music has often been considered a dangerous substance, an agent of moral ambiguity always in danger of bestowing deviant status upon its practitioners" (Brett, 2006, p. 11). Androids are associated with deviant status, so music becomes a vessel that sometimes reinforces a stereotype and sometimes deconstructs it. The first posthuman subjectivity that I want to discuss is Eva, since she is a complex character with layers of meaning that try to conceal her artificial condition. Eva is energetic, spiteful, charming, cheerful, and sometimes aggressive. Kassabian (2001, p. 106) describes these kinds of cinematic characters as "children [that] do what their parents cannot, go where their parents cannot, and repair what their parents broke". During a dialogue, the head of the robotics program states that the android should be male. He uses stereotypical labels for both genders and talks about positive female qualities such as "sweet", "mature", "sensitive", but his female colleague argues that "girls […] are more wicked, more jealous and more twisted", concluding with "I know all that because a long, long time ago, I was one" (personal transcription). This negative description of the female gender becomes evident throughout the narrative. The soundtrack associated with Eva alternates between positive and negative, contrasting consonant melodies on piano, strings, and xylophone with dissonance and a female choir.

Music and dance are ways to both construct and project Eva's cyborg identity. According to sociomusicological studies (DeNora, 2000, p. 62-63), auto-identity is produced through biographical projection, or ways to present the self to others and oneself. Looking at how Eva does that with the aid of music is a way to understand how she represents a human, android, or cyborg in different moments of the cinematic dispositive. Eva's first appearance constructs her as a child with self-awareness of sociological debates regarding pedophilia and sexual abuse. After Álex agrees to build a new robot child that behaves like a human, he goes out on the streets to do empirical research around children's parks. Álex is searching for a child who is out of the ordinary, someone playful and funny, and Eva catches his attention because she is doing a handstand. While driving his car, Álex slowly moves along while staring at Eva walking along the pavement. This catches her attention, provoking a sideways glance.

The camera alternates between shots of Álex's face and his first-person view, but the sound of the car disappears and is substituted for the giggles of children passing through. The music starts to reintroduce some innocence and playfulness into the scene in the form of a piano melody, plucked strings and a subtle xylophone. This last instrument is a clue to Eva's status as an android, since the metallic quality of xylophone is close to the sounds produced by the cybernetic construct that Álex makes for every robot, but the audio-spectator will only make this identification later, when the construct is introduced. The scene keeps going and Eva begins a conversation with Álex, challenging his behaviour with a question: "What are you looking at?" to which he responds: "I wasn't staring". Eva persists and he admits that he was actually staring, something that makes her laugh, and she replies: "how nice. A pervert who actually admits that he is" (personal transcription). For the rest of

the social interaction, now without music, Álex will try to persuade Eva to help him build the cybernetic construct for an android.

This brief scene begins to construct Eva's ambiguity, since the dialogue highlights her intelligence and insight while the music represents her as a human child, with the acoustic instruments connecting her to a natural (Marsh and West, 2003, p. 190) and ludic realm. The other aspect that reinforces her ambiguity is how she is jumping, spinning, and moving her arms like she is dancing. This shows a reaction to unheard melodies and the capacity to listen to or imagine music in her mind and dance to it. With this she shows that a taste for music and dance is part of her identity, and she also reveals her auto identity. At this point in the narrative Eva believes she is a human child, so those actions are expected from someone educated to interact with music in a certain way. At the same time, the narrative plays with itself, and puzzles the audio-spectator, because it subtly gambles with a question posed to all androids. While Álex and the cybernetic company are constructing the androids they program a failsafe phrase that when said aloud can automatically shut down an android if it malfunctions. The statement is "what do you see when you close your eyes" (personal transcription) and it becomes clear that, when Eva closes her 'ears', she can listen to music, she has the capacity to reproduce music whenever she wants.

Regardless of her mature attitudes, Eva is still represented as a human child through other behaviours. During one scene she sulks when Álex laughs at her and another scene shows her taking a bath, with a rubber duck, while her mother washes her hair and complains about her attitude. That is reinforced musically when she and the android that Álex made have the same reaction to a musical instrument. On one of Álex's tables there is a mechanical instrument that plays a specific melody whenever someone turns the handle. When Álex activates the android for the first time, the android goes to the instrument, plays the tune, and then laughs happily. Later, when Eva enters the lab she goes to the same instrument, cranking it more energetically, but still becoming happy after hearing the tune. In this way the film demonstrates that both child and android react the same way to a musical instrument.

Playing a similar deviant role, Cleo is one of the segregated androids in *Autómata*. However, her journey takes the audio-spectator farther, from her first scene that shows her as a sex worker, and reveals ambiguity towards her role, to later scenes where she is a lover. Her introductory scene aims at capturing her charm and dangerous aura. During this scene, Jacq Vaucan and Wallance search for deviant androids in a brothel. As they enter a small space and pass through a corridor with bright and intense red lights, the mood is passionate and perilous. The ominous music has a continuous hybrid harmonic dissonance, juxtaposing voices and an electronic frequency that transforms and vibrates, echoing the intense lighting and expressing the dramatic tension felt by the characters. The soundtrack draws on the ambiance of a horror movie, creating a mixture of diegetic and non-diegetic sounds, which transposes a sense of dread to the female bodies in the scene. As both humans keep walking, we see through the eyes of Jacq and then Wallace, showing us that we should identify with the humans and their feelings. When they enter Cleo's room, the *mise-en-scène* shifts to a soothing blue colour, but the same sonic palette keeps playing. Cleo appears in a blurred

shot, but as she walks towards Jacq, her bodily movements produce electronic sounds. As the image becomes clear and Jacq moves forward, a cross-fade brings to the surface a new melody, a short fragment of A, B, G, and G# sung by high-pitched voices. The scene becomes calm, and the sound effects when various LED lights turn on are like a chime that binds every sound together in an integrated soundtrack. As the camera stays behind Cleo, we begin to hear her moans. When she starts to talk, the audio-spectator has a chance to identify with her. Consonant music is, for the first time in the film, associated with an android, giving us a clue about her posthuman subjectivity. Minutes later she is revealed to be self-conscious.

The noises she makes, her framing as a sex worker, and the fact that she has a female face are all relevant. Kristin J. Lieb (2018, p. 108) explains how facial aspects are central to mental life because they transmit messages of intellect, personality, character, and identity. Since Cleo does not change her facial expressions, everything seems like a mask acting as a metaphor for the performance of gender roles. The next scene I want to analyze is when Jacq and Cleo interact with a jukebox playing music because this is a moment that builds up these signifiers and shows a technology of the self. In this scene, a jukebox automatically activates, and a drunken Jacq decides to teach Cleo what music and dance are. Moving closer to the android, Jacq says: "Music. It's music, Cleo. A human thought structure", pointing his index finger to his head to indicate that he is human. Cleo keeps watching him without saying a word, and Jacq stops drinking, places his bottle on top of the jukebox, and asks: "Can you dance, Cleo? It's easy for someone as smart as you are. All you need to do is count, you know". This brief dialogue reveals two key aspects of Jacq's narrative journey: first, his recognition of Cleo's intelligence and learning capacity, and the subtle use of the word "someone". This last aspect shows that Cleo is no longer an object but is now "someone", therefore a cyborg. Jacq begins to move his feet and count – "one, two, three, four" – while Cleo observes his legs. Cleo counts and dances alone, but as the music develops, Jacq holds her hand, and they dance together. They end up hugging, Jacq caresses her head, Cleo starts to breathe heavily, moan, and then asks, "Do you love me Jacq", which awakens the question: "Can you feel, Cleo"? (personal transcriptions). The music is "La Mer", from French composer, lyricist, and singer Charles Trenet, and we see how this "chanson d'amour" has a role in the interaction. The sea is a signifier at the end of the film, where Jacq and his family see hope for humanity, in a scene that shows an integration of emotional control (Frith, 2003, p. 102) for both characters. Even if categories of human race and cyborg race are actualized through music technology, because the automated activation of the jukebox could still be associated with Cleo's artificial aspect, she was able to show her posthuman subjectivity to Jacq, mediated by music.

The ambiguities in Cleo's subjectivity and identity resolve at the end of the film when she takes off her mask and embraces a cyborg identity. At that point "musical pleasure" is evoked with music, sound effects, and Cleo's dialogue when she describes music as "physically arousing in its function as the initiator of dance". The final scene shows how music is "constructed as feminine and therefore dangerous" (Brett, 2006, p. 12). "Through the power and danger of the femme fatale", sonic signifiers of pleasure and pain "have often been described in terms of the visual image of the woman" (Smith, 2008, p. 70-71). Cleo is incapable of being a traditional femme fatale since even though she is presented as a woman,

her visual appearance does not change with pleasure. If we think that she is trying to 'acoustically seduce' Jacq, then we could theorize that she is a fembot, as defined by Susana Loza (2001, p. 351), characterized by her "sensual sighs and simulated cries". However, her non-existent facial expressions make her a paradoxical character. That is why Jacq is so disturbed when she experiences feelings because she cannot externalize them or express pleasure through her body except with the aid of sonic phenomena.

Music is a technology of cyborg self for Cleo and, in conjunction with her sonic expressions, creates a musical and verbal performance of the erotic that is part of her subjectivity. Throughout *Autómata*, music is "an art so largely concerned with transcendence, the sublime, the sentimental" (Brett, 2006, p. 14) that it is only through the realm of music that Cleo turns into a cyborg. That creates a double bind, because "the capture and dissemination of all the subtleties of the ecstatic voice required technologies such as the microphone" (Smith, 2008, p. 77). The low quality of Cleo's recorded voice, with noise, reverberation, and resonance, makes her sound exactly like the old vinyl that plays "La Mer" in the jukebox scene. On the one hand, Cleo can feel the music and, through music, sense the pleasure in her dance with Jacq. On the other hand, the timbre of both music and voice reinforce the technological mediation of her body. Cleo's voice is not produced in an organic way so she cannot respond as a human would, everything feels simulated by a cybernetic technology.

4. CONCLUSIONS

By analyzing two Spanish films, *Eva* and *Autómata*, this article has shown music-cyborg relationships at macro, meso and micro levels of experience. At macro level, the sound and music in films and their attached cultural meanings transform science fictional characters and imaginaries, as we saw with the use of Handel's music. With a juxtaposition between baroque music and futuristic settings, audio-spectators are led to question the power relations at play, and the place occupied by cyborgs as a metaphor for humans. The meso level of experience, as demonstrated by the jukebox tune that plays for a human and a cyborg, structures space and interpersonal interaction. Cleo is a complex entity occupying a place between a subject and an object, identified with both humans and the sonic artefacts in the room, placing cyborgs on the threshold between music ecologies. The micro level concerns the personal experiences of cyborgs like Eva, the way they imagine and feel music, and how that process clarifies their human qualities and gives them an agency denied to objects. In her collection of essays, the musicologist Tia DeNora (2011) calls musical situations privileged fields since music can be 'inside' of action and actions are collectively negotiated with their participants. I have taken a crystalized approach to sonic ecologies to give a multi-layered insight into how cyborg representations, in action, are promulgated.

As an ending note, a posthuman approach, re-read through a musicological perspective, allows us to bypass the pitfalls of binary thinking and address the audiovisual apparatus in its full complexity. Music and sound are not sonic augmentations to these cyborgs, nor are these figures a simple expression of non-human musicality. *Eva* and

Autómata are Spanish films whose machines capture and process forces and energies from the sonic ecologies to their subjects, and vice versa. There is an assemblage of music-cyborgs without cause and effect, neither is an extension of the other, and the soundtracks are not mere cinematic additions. Everything is integrated. For Haraway, the cyborg is a concept to deal with how technology is embedded in everyday life. Music as a technology of the cyborgs means that it is an active agent in their sonic ecologies and interactions. Because cyborgs have humans as their referent, they provide a musicological and posthuman perspective to imagine what roles sonic instruments have in our everyday ecologies. Moreover, it inserts the films in a social debate regarding what acoustic developments in musical instruments, both hardware and software, will mean for cultural practices in the future. The films' audiovisual representations imagine music as a metaphor for 'human thought structure', they use it to actualize its possible meanings. Additionally, the thought structure is about the sounds made by/for humans and cyborgs revealing the possibility for a new posthuman subjectivity.

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Fecha de recepción: 25/10/2021

Fecha de aceptación: 11/04/2022