Shifting Interfaces

An Anthology of Presence, Empathy, and Agency in 21st-Century Media Arts

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Table of Contents

III

Bacteria and Smart Objects:
Presences Beyond the Human
....

Avatars

Shifting Identities in a Genealogical Perspective

Andrea Pinotti

....

Immersivity and Presence

In recent years a huge number of publications dealing with the experience of 'immersion' has appeared on the scene of contemporary research, both in the humanities and in media and computer science. According to this scenario, we are constantly immersed in a situation: in learning (Beck et al. 2018); in media (Lombard et al. 2015); in technology (Moser 1996); in power (Schatz 2009); in video games (Calleja 2011); in literature (Ryan 2011; Wolf et al. 2013); in theater (Frieze 2016); in visual arts (Grau 2003; Liptay and Dogramaci 2016).

Immersion is such a powerful concept that scholars have started to retrospectively apply it to past cultures, like in the case of nineteenth-century American literature (Jarenski 2015), or even of medieval times (Bleumer 2012). Operations of this kind should not be easily dismissed as anachronistic. The desire to enter an alternative world, another dimension parallel to the actual one, is very ancient, even ancestral, as attested in timeless myths.

The most famous immersive myth is the legend of Narcissus—a veritable proto-immersant—who fell in love with his image reflected by the water. As any other mythical narration, this legend knows different versions. The most popular is the version narrated by Ovid in the *Metamorphoses* (III, 339–510: 1971, 149–61): the young man, frustrated by his vain efforts to embrace his image, perishes on the bank, and the corruption of his body gives birth to the beautiful white and yellow flowers that carry the name of narcissus. In a less frequently cited version, adopted among others by Plotinus (*Enneads* l, 6, 8: 1989, 257), Narcissus dives into the water in order to join his image, and he drowns: a destiny that reveals the mortal risks connected to the nullification of the threshold separating image and reality and hints at the structural co-belonging of desire and fear.

Far from being limited to the Western cultural tradition, this desire of entering the image seems to be a transcultural one, as suggested by anecdotes regarding Chinese painting. In one of the most famous, the painter Wu Daozi disappears in the painting he has

realized for the emperor's palace (Lindqvist 2012). This motif has been analogously varied in a literary form: trespassing on the threshold between the real and the fictional worlds, Wan Hu-Chen writes himself into his book as a character to join his beloved Li-Fan, whom he has already transformed into a literary figure (Balázs 2010).

Contemporary immersive virtual reality devices seem therefore to correspond to a very ancient—and possibly universally anthropological—desire, which needs to be understood from an archaeological and genealogical perspective. Media archaeologist Erkki Huhtamo has strongly warned against the risk of adopting a universalistic, 'continuistic,' and linear approach, considering the quest for immersion as an anthropological and a-historical structure. Nevertheless, his intention to address it from a historical perspective does not seem to be able to avoid this risk at all. Speaking of 'tracing and comparing some of its manifestations' (Huhtamo 1995, 161) always implies that a core is stable under the different historical concretizations, which share a Wittgensteinian family resemblance.

Over the centuries, the immersive drive has constituted a fundamental challenge to the very notion of 're-presentation' in literature, theater, and visual arts. It is a multifarious trend that seems to find a common denominator in the attempt to defy the traditional framing devices (be it the frame of a painting, the pedestal of a statue, the curtain of the theatrical stage, the screen of a moving theater or of a computer), operating through strategies which transform re-presentation into an experience of 'presence,' of 'being there' (Riva et al. 2003). Such 'unframedness' and 'presentness' go along with an effect of 'immediateness,' namely of transparency of the medium, which is paradoxically obtained through highly sophisticated mediatizations. As a result, these dynamics end up in what could be defined an 'environmentalization' of the fictional world: the representational sphere seems to exist in a seamless space-time continuity with the real spatio-temporal world of the user, it becomes an environment which offers affordances and allows agencies just like the real one.

Being aware of the fact that this desire has an ancient history does not mean denying that our times seem to be particularly involved in it, to an unprecedented extent and scale: a massive immersive drive, whose quantitative extension promises to produce qualitative effects as well. In the 1930s, Walter Benjamin had spoken in a truly prophetic way of a "tactile reception" (Benjamin 1935, 40) of the images, promoted by the invention of photography and cinema. Nowadays, digital natives grow up interacting with touch screens from their youngest age (what has been called the 'touch-screen generation': Rosin 2013). The experience with images is being radically transformed, because nowadays an image that cannot be modified (in dimension, orientation, detail zoom) by the action of our fingers is no longer able to attract the attention of children: digital (from Latin *digitus*: finger) images go literally hand in hand with finger users. But in relation to immersive virtual environments, these children are still 'immigrants' who need to acquire familiarity with the immersive transformations of sensibility. However, given the rapid pace of technological

ANDREA PINOTTI

development and the huge amount of economic and scientific investment on a global scale, *immersive natives* are to be expected in the very near future. In a techno-enthusiastically inspired mood, Frank Steinicke has written:

> As an immersive immigrant and young father, I would love to welcome also future generations of immersive natives. I can only imagine how exciting it must be to grow up in a world in which the exploration of virtual environments or the seamless merging of digital information and physical reality is totally natural and unremarkable (Steinicke 2016, xiii).

It is highly disputable whether such environments will be able to 'contribute to a better world,' as he maintains: techno-apocalyptic thinkers would argue exactly the contrary. Keeping us far from both technophilia and technophobia, what is sure is that a critical understanding of such a process is urgently needed since it is likely to rapidly and radically transform our experience of iconic worlds and our experience in general.

Avatars: shifting-identity operators

In the dynamic of immersion and presence a crucial role is played by 'avatars': graphical representations functioning as digital proxies through which the users of the Internet, of a cyber-community or a computer-based interface (like in the case of video games), interact with synthetic objects or other avatars in the virtual world.

In its referring to a surrogate or representative of one's identity, the notion of the avatar belongs to a wider constellation of cognate concepts, which embraces analogous figures such as the 'double' (Rank 1914), the 'alter ego' (Cooper et al. 2007), the 'Doppelgänger' (Ascher Barnstone 2016), the 'hologram' (Johnston 2016). The functional spectrum of the avatar spans from the revelation of the self (a sort of truthful self-portrait) to the disguising deceit of the mask: under such an extremely wide range of possibilities, it acts as a powerful identity operator which allows for a virtually infinite number of negotiations of selfhood. The avatar allows for what has been called 'auto-empathy' (Tordo 2013): the possibility of empathizing with the other-in-me, of taking my perspective on the world as seen from an external point of view.

Far from being one-way access from the real into the digital domain, avatars constitute *two-way* mediators which permit interventions from the virtual onto the real world as well. As reported in recent neurocognitive research, avatars seem to be able to impact actual reality, modifying for instance gender and racial biases via the elicitation of a full-body ownership illusion: assuming an avatar of different gender (for instance in the case of domestic

violence: Seinfeld et al. 2018) or putting oneself in a different skin color (Peck et al. 2013; Hasler et al. 2017) within the virtual environment can reverberate in the real world as well, helping to correct social stereotypes and prejudices through the adoption of an alternative perspective-taking and the experience of empathizing processes. Low-level bodily representations impact on high-level attitudes and beliefs. As a group of scholars intensely working on these issues brilliantly put it, 'Changing bodies changes minds' (Maister et al. 2015). Moreover, the recourse to avatars has proved to be particularly significant in clinical investigation of pathological syndromes, like in the case of assessing BID (Body Image Disturbance) connected to anorexia and other eating disorders (Mölbert 2018; Serino et al. 2018), or PTSD (Post-Traumatic Stress Disorder) symptoms (Myers et al. 2016).

In the domain of new media arts, the recourse to avatars massively involves both production and reception. This process goes evidently hand in hand with the mainstream tendency to immersivity: not only are exhibitions on immersive art organized (like *The Art of Immersion* at the Center for Art and Media in Karlsruhe, 2017–18, which displayed immersive digital artworks and performances), but exhibitions themselves turn to immersivity in their display modalities and presentation strategies, so that even Van Gogh can become 'immersive' (https://vangoghimmersion.com/ or www.imagine-vangogh.com/). Considering this trend, it is not surprising that avatars as well play a remarkable role in this scenario, which has been exemplarily modeled by the experiences conducted in the virtual world of Second Life (Doyle 2015).

Cao Fei is a Chinese multimedia artist who has documented in a video entitled *i.Mirror* (2007) the life of her avatar China Tracy in Second Life. In the same year and also in SL, Cao planned and developed RMB City, a virtual city offering a platform for creative activities and experimentations on the threshold between virtual and physical existence, and virtual art exhibits. This hybrid entity—both artwork in itself and institutionalized virtual space to display other digital artworks—was acquired by the Guggenheim Museum in 2008 (https://www.guggenheim.org/artwork/23251).

Also involved in SL, Canadian artist Jon Rafman defines himself as dominated by a 'flâneur-like gaze' while approaching via his avatar in his *Kool-Aid Man in Second Life* (2008–11: http://koolaidmaninsecondlife.com) the virtual subcultures proliferating in this parallel cyberworld 'as if I were a passing explorer or an amateur anthropologist' (Sanchez 2014). His recent work *Dream Journal* (2015–16: https://vimeo.com/jonrafman/review/179476655/1552a7d383)—a computer-generated imagery which aims to give visual expression to his oneiric fantasies—allows us to draw a crucial distinction: although one might be tempted for stylistic reasons to designate the digital beings crowding this CG animated film as 'avatars,' they are merely CG animated characters which lack the necessary correlation with a real being for whom they operate as proxies. Avatars in VR are a sub-class of CG figures, identified by their relationship with the real subject they represent.

However, such a fundamental correlation does not need to be conceived of as a human master vs. digital avatar relationship, nor in a univocal hierarchical direction, as if the controlling subject were necessarily the human master and the controlled entity the digital proxy: mixing computer-generated art with videogame stylemes, American artist Ian Cheng subverts both premises. Expressing his fondness for his pet dog Mars, he has introduced in his works canine avatars: of the Corgi breed, like in the case of *Bad Corgi* (a 2015 Serpentine Digital Commission, which has also become an app for smartphones: http://getbadcorgiapp.com), and of the Shiba Inu breed, like in the case of *Emissary Forks at Perfection* (2015–16), a work which comprises the 'Emissary' trilogy together with *Emissary in the Squat of Gods* (2015) and *Emissary Forks For You* (2016). Staging a sort of cyber-Hegelian master-slave dialectic, Ian Cheng inverts the conventional role and obliges the human users, equipped with Google Tango tablets, to follow the canine avatar in its wanderings through artificial ecosystems, thus reversing the conventional human-animal power relationship (Kerr 2016).

Negotiation of authorship can assume various forms: a multiple-use name, like in the case of the collective author of literary texts and musical works Luther Blissett; or a pseudonym to preserve the anonymity of an individual author, like in the case of the Italian writer Elena Ferrante or of the British artist Banksy. In none of these cases is the visual identity of the subject accessible. On the contrary, the virtual world can allow for both anonymity and visibility, like in the case of LaTurbo Avedon (https://turboavedon.com), an avatar operating since 2008 both as an artist and as a curator intensely active on social media platforms, whose screen name can at the same time be associated with a face depicted in different self-portraits and accurately protects the real identity of the human(s) behind it. The first virtual resident of the Somerset House Studios in London, LaTurbo Avedon, also paradoxically displayed her work in the solo exhibition *New Sculpt* at the real-life gallery Transfer in New York in 2013. After much investigation about the presence of the real in the virtual, this case calls for a study of the presence of the virtual in the real: 'Will you be "there" at the opening?,' asked an interviewer. And she replied, 'As much as I can be! I'll be chatting with everyone during the reception using various devices, but as you can imagine, I have my limitations' (Palop 2013).

Given the fundamental correlation between the production and reception of artworks, it is not surprising that avatarization impacts spectatorship as well. This process belongs to a wider phenomenon of virtualization of artistic institutions, thanks to which IRL (In Real Life) existing museums and galleries increasingly offer the possibility of online virtual explorations of their collections. A particularly massive case is represented by 'Google Arts & Culture' (https://artsandculture.google.com; formerly 'Google Art Project'), a kind of titanic on-line meta-museum bringing together hundreds of international institutions. Launched in 2011, and employing an indoor version of the Google Street View 360-degree camera system which allows the capturing of images at an ultra-high giga-pixel resolution,

the project invites visitors to walk through the galleries, zoom in to focus on details at a microscopic level, and also create a personal virtual collection of artworks ('Be your own curator') selected from different locations: Malraux's *musée imaginaire* finds here its most sophisticated accomplishment.

In this context, a specific sub-class is the case in which the spectator is represented by its avatar performing as the visitor's surrogate during the virtual aesthetic experience. Once again, Second Life has been a pioneering space that has permitted the proliferation of a high number of exhibit locations (https://secondlife.com/destinations/arts). But what happens to our aesthetic experience when we go beyond the isolated individual on-line surfing and we get to share our emotions in co-presence and inter-communication with other avatars? Does this virtual setting specifically and qualitatively affect this particular lived event? This has been the object of a recent interdisciplinary experiment entitled *Art Distance Sharing* (Garnier et al. 2017), designed to evaluate the neural, cognitive, and perceptive processes elicited when several users, who are physically distant but present together in the digital space, share via their avatars the experience of artworks. While the data resulting from this experiment are still being analyzed and have not been published yet, the design of the experiment itself attests to the fecundity of this research field, which promises to open up new horizons in VR spectatorship studies as a particular chapter of what is being studied as the 'social life of avatars' (Schroeder 2002).

Notes for a genealogical approach

The list of avatarial artistic practices could be enriched by many other cases. But at this point it is perhaps more useful to adopt a genealogical perspective to understand the cultural and historical background of this phenomenon, whose roots can be traced back to very ancient times, starting from the very term 'avatar' itself.

Far from being a term coined in contemporary times, the notion of 'avatar' is rooted in the ancient Hinduist tradition: the Sanskrit term *avatāra* refers to the descent on earth, the material appearance, the sensible manifestation of a god or goddess, mostly Vishnu, who intervenes in earthly affairs to reestablish the cosmic order. Forms assumed by the deity can vary according to the circumstances: among those embodied by Vishnu we find the fish, the tortoise, the boar, the man-lion, the dwarf, the Buddha. Therefore, each *avatāra* is to be considered only a partial manifestation of the corresponding deity it visually exhibits. After accomplishing the task assigned, the *avatāra* merges back into its deity (Hacker 1960; Kinsley 1987). From a comparative point of view, the Hinduist idea expressed by the *avatāra* has been associated with other similar representations of the divine appearance, like the Christian 'incarnation' (Parrinder 1997; Sheth 2002).

ANDREA PINOTTI

Although its first occurrences in Western languages can be traced back to the eighteenth century, and although it appeared as the title of a short novel by Théophile Gautier in 1856, the fortune of the term is due to its massive employment in the domain of video games (starting from *Avatar*, developed in 1979), chat-rooms, social networks, and more generally in digital communication. The use of the word has been dramatically increasing in recent years, also thanks to the enormous success of James Cameron's film *Avatar*, released in 2009 and shot with sophisticated stereoscopic techniques (Depraz 2012).

Just as the immersive drive can be traced back to the a-historical dimension of myth, the avatarial status in the broadest sense of the term—namely intended as the surrogate presence of the image-maker/user immersed in their own image—can as well be detected as a strategy which has been in force since ancestral times, if we consider the case of the representation of hands during the Upper Paleolithic Period. The techniques vary: the hands could be either painted (mostly in red, white, or black pigment) and then applied to the surface of the cave (*positive* handprint), or the hand was placed on the rock and its silhouette was emphasized by spraying pigment through a tube, or by spitting the paint from the mouth, or even by painting around the hand's contours with a brush (*negative* hand stencil). The oldest stencil so far was found on the Indonesian island of Sulawesi, dating to 37,900 BCE (Aubert et al. 2014).

Although we do not know much of the ultimate reasons which motivated such manufactures, it does not appear far-fetched to read them as partial avatars of the prehistoric self, iconic representatives of the human body in its archaic identity which could allow self-recognition and at the same time self-duplication. As a sort of archaic prototype of Jacques Lacan's mirror stage (with which they share the lateral reversal, so that the right model-hand appears on the rock as a left picture-hand, and vice versa), handprints and hand stencils might be intended as figures that transform the opaque surface into a specular surface in which to reflect oneself. The flickering lights of the torches must have added the proper cinematic dynamization to the whole.

From such mirroring to the practice of self-portraits and selfies (Mirzoeff 2016) is perhaps not too much of a leap: it certainly is from the point of view of chronology, but it is just one step away from a conceptual perspective. One of the first self-portraits usually mentioned in the histories of the genre (Hall 2014) was realized in quartzite by the Pharaoh Akhenaten's chief sculptor Bak in ca. 1353–35 BC (at the Ägyptisches Museum und Papyrussammlung in Berlin): it represents the sculptor together with his wife, both watching us in a frontal pose.

Hans-Georg Gadamer claimed that we can instinctively tell two depictions of a human face apart, distinguishing which is a portrait and which is a simple representation of a generic human being, even if we do not know the person portrayed (Gadamer 1960, 140). Could we say the same for the distinction between portraits and self-portraits? This is a

much harder claim to defend, but certainly it is the 'self' implied in self-portraiture which constitutes its avatarial status, its 'mineness': avatars necessarily need the reflection of the identity, its doubling, which allows both the split between the self and its representation on the one hand and their connection or even identification on the other. In this sense, frontality rather than profile seems to constitute the 'symbolic form' specific for an avatarial self-representation. As Meyer Schapiro pointed out in a brilliant essay,

> The profile face is detached from the viewer and belongs with the body in action (or in an intransitive state) in a space shared with other profiles on the surface of the image. It is, broadly speaking, like the grammatical form of the third person, the impersonal 'he' or 'she' with its concordantly inflected verb; while the face turned outwards is credited with intentness, a latent or potential glance directed to the observer, and corresponds to the role of 'I' in speech, with its complementary 'you'. It seems to exist both for us and for itself in a space virtually continuous with our own, and is therefore appropriate to the figure as symbol or as carrier of a message (Schapiro 1973, 38–39).

In the pre-virtual age, to establish an avatarial relationship with my iconic surrogate, the 'I' outside the image needs to address the other 'I' within the image in an 'I-You' connection to elicit a mirror-like self-recognition. This requirement has probably contributed to the statistically higher number of frontal or semi-profile self-portraits with respect to the profile ones: a constraint which the invention of photography made less impelling, and which has significantly been revamped by the practice of selfies, because the subject needs to frontally address the camera in order to control the framing.

A particularly interesting case is offered by the sub-genre of the role-playing self-portrait (Hall 2014, 233–95; Moran 2017, 82–132), in which the self is portrayed as an 'other': famous examples are the alleged self-portrait of Michelangelo depicted in Saint Bartholomew's flayed skin in *The Last Judgment*, Rembrandt's self-portraits as an oriental potentate or as the apostle Paul; in contemporary times, the series realized by Cindy Sherman and Yasumasa Morimura. This sub-genre reminds us of the ancipital nature of the avatar: while anchored on the one side in the real subject as its representative, it allows for shifting modulations of its very identity.

A remarkable exception to the frontal self-representation—or rather a complementary case—is represented by the so-called *Rückenfigur*: the figure seen from behind which has been made popular thanks to Caspar David Friedrich's romantic landscape paintings displaying characters depicted from the back, like the *Woman before the Setting Sun*, or *Wanderer above the Sea of Fog* (both painted in 1818), or the *Woman at a Window*, 1822 (Böhme 2006). This compositional choice has exerted a significative influence on many artists (for example on Edvard Munch or on Gerhard Richter). The origins of this *topos* are

also very ancient: the presence of figures from the back in Paleolithic paintings is disputable, due to the high level of abstraction and stylization (Wilks 2005, 18); but it is incontrovertibly attested to in ancient mosaics, frescoes, and vase paintings (Koch 1965).

Performing a 'hinge function' (Prange 2010, 140), the figure from behind appears as a veritable dialectical entity, whose effects are paradoxical and oxymoronic: on the one hand, by turning its back on the beholder it seems to ensure the tight closure of the iconic space, separating it from the real space in which the observer stands; on the other hand, it makes permeable and passable the threshold between the interior fictional space of the image and the exterior real space, offering the possibility of a 'reflection' of the gaze of the external observer in the gaze of the depicted figure (Krüger 1995, 156), and inviting the spectator to empathetically merge with the depicted character and to look at the landscape from its vantage point.

By making full use of the technical possibilities offered by the photographic device, in 1971 Giovanni Anselmo (an Italian artist belonging to the 'Arte povera' movement) pointed his camera in the direction of a meadow, and adjusted the self-timer shooting in order to allow himself to run in front of the lens and literally 'enter the work' (as the title of this photograph suggests: *Entrare nell'opera*). In this way, being captured by the camera from the back, Anselmo realized a perfect combination of self-portrait and *Rückenfigur*.

As has been convincingly shown (Beil 2012, 131–70), the iconographic tradition of the *Rückenfigur* has deeply influenced the representation of the third-person perspective avatars in contemporary video games.

Avatarizing the gaze

Cinema has inherited many representational strategies from the history of visual arts, including the recourse to partial and full figures from behind, with different variations on this theme in diverse cinematographic traditions—classical, modernist, and realist (see Kirsten 2011; Thomas 2013). One might even conceive of the 'subjective' or 'point-of-view shot' (Branigan 1984, 103–21; Casetti 1985; Dagrada 2013)—in which we see exactly what the character's eyes see—as the result of the spectator's progressive approach to the *Rückenfigur* up to the complete incorporation of the former into the latter; an incorporation which allows a full identification of the three gazes: of the camera, of the character, and of the spectator.

The 'over-the-shoulder shot' (OTS), a shot taken from the camera angle established by the shoulder of a character (in which a part of the back and side of the head is included either at the right or at the left side of the frame and occupies more or less one third of it), constitutes an intermediate stage between the 'objective' and the 'subjective' shots. The

partial head of the character operates as a partial avatar of the spectator, who is invited to assume the point of view of the character.

The embodying effect performed by the subjective shot is further intensified by what has been called the 'first-person shot' (Eugeni 2012): a shot made possible by technological innovations such as the Steadicam, hand, and helmet digital cameras, surveillance sensors, and increasingly fluid and realistic video games (especially the genres of the 'shoot 'em up' and the vehicle simulators). A paradigmatic example is offered by *Hardcore Henry*, a 2015 film directed and interpreted by Ilya Naishuller, which was entirely shot with a GoPro.

In the first-person shot recording the event, what is important is not so much the event itself: what matters is rather the fact of conveying the presence of the filmers in the scene, their neurophysiological reactions to the world, in what has been happily defined as a 'somatic image' produced by a 'body camera' (Bégin 2016). An invitation to somatically empathize is thus offered by this kind of shooting, which rests on the idea of a shared experience. The device itself undergoes a sort of 'avatarization,' becoming the substitute of the experiencer and generating a kind of mobile self-portrait, a dynamic *proxy*. Nick Paumgarten describes his reaction to the viewing of a GoPro shooting taken by his ten-year-old son while skiing as follows:

> I didn't need a camera to show me what he looked like to the world, but was delighted to find one that could show me what the world looked like to him. It captured him better than any camera pointed at him could. This was a proxy, of sorts (Paumgarten 2014).

The most radical version of such somatic first-person empathizing has been offered by *Strange Days*, a 1995 science fiction thriller film written by James Cameron and Jay Cocks and directed by Kathryn Bigelow. The story revolves around the SQUID, an illegal electronic head-mounted device capable of recording physical sensations directly from the wearer's cerebral cortex during the actual experience onto a MiniDisc-like support. The device subsequently allows playback so that the user sees and feels what was experienced by the recording subject, feeding a black market of scenes of violence, sex, rape, and murder. Although the setting of the movie was the city of Los Angeles in 1999, the integrally reproducible experience imagined by *Strange Days* seems to be picked up nowadays by the efforts accomplished in the domain of virtual reality and of the so-called 'expanded cinema' (according to the label coined by Youngblood as early as 1970) in order to obtain an increasingly multimodal and multisensory engagement with images by gradually involving the whole domain of human sensibility in order to mimic real-life perception. This process has led to the development of immersive sound systems (Török et al. 2015), to the integration of haptic stimuli (Paterson 2007), and to the involvement of smell and taste (Ischer et al. 2014; Ranasinghe and Yu-Luen Do 2016).

ANDREA PINOTTI

What is suggested by the above-mentioned cases—the subjective shot, the first-person shot, and the total-empathy shot—is that the experience of the avatar as the experience of an immersive presence of the self in the iconic environment is not necessarily linked with the perception of a visible figure representative of the self, but rather with a particular articulation of the gaze, of the perspective on the experienced world as representative of selfhood. Moreover, a GoPro can be installed on non-human entities: a bird, a drone, a boat (like in the paradigmatic case of *Leviathan*, a 2012 ethnographic documentary directed by Lucien Castaing-Taylor and Verena Paravel, and shot with GoPros in the North Atlantic, which revolves around the different gazes—of fishers, fish, and boat—intertwining on board a commercial fishing vessel: Pavsek 2015; Unger 2017). This simple fact induces the enlargement of the notion of gaze—and consequently the notions of selfhood and of the avatar, too—to comprehend also non-human entities.

Given the above-mentioned tendency to complement the audio-visual perception with multisensory and multimodal integrations, the notion of 'gaze' itself should be finally intended as an expanded one, eventually coinciding with the notion of 'experience' tout court. Correlatively, the subject connected to such integration is no longer a 'spectator' but rather an 'experiencer.'

Acknowledgements

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