Close: Mute video installation in null extension

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Abstract

This article examines the author's 2001 sound and video installation *Close.* The analysis makes use of Michel Chion's theories on the spatial language of cinematic sound in addition to acousmatic music theory and ideas from the visual arts. Of particular focus is Chion's notion of the *null extension*, a cinematic contraction of acoustic space in order to concentrate on the acoustic experience of one character alone.

Keywords

sound art. listening. installation. cinema. binaural.

Introduction

Close is a sound and video installation that I first presented in 2001. It explores themes of loss and through a three-dimensional audio technique, tightly binds the viewer in association with an onscreen subject. This article revisits the work and analyses it drawing from cinematic sound and *acousmatic music* theory, as well as from perspectives in the visual arts. The analysis has been part of a larger doctoral project at the University of Wollongong, Australia and has involved the development of a notion of *self-listening*—a study of subjective phenomena in the listening process. *Close* was an integral part of that study and is a precursor to a current artistic project involving virtual audio with images, *O Espelho*.

Overview of the installation

Close was created in Melbourne in 2000 and 2001. It was videotaped at the CSIRO[1] Building Construction and Engineering *anechoic chamber*[2] facility with the support of the CSIRO and the New Media Arts Board of the Australia Council for the Arts. The installation is designed for a single

1 Commonwealth Scientific Industrial and Research Organisation.
2 A special echo-free room used for acoustic testing and experimentation.

seated listener. It involves four suspended *Dacron* projection screens forming an open square. A hairdresser's chair and stainless-steel table with hairdressing implements are placed inside this square and four video projectors, project a single channel of video onto the four screens. Dacron cloth has the property of showing the projected image on both its sides, acting as both a *rear-* and *front-projection* screen and this property is used to give the installation presence at a distance. A remote computer controls playback of the video using messages sent from sensors in the chair that detect viewer occupancy. A pair of headphones are located on the chair.

The videotaped actions in the work are those of a haircut. The camera position was constantly shifted throughout the haircut to vary the viewer's perspective. In the video, a hairdresser, played by professional hairdresser Reno Pontonio, performs what initially appears to be a standard haircut on a subject, played by me. In the video the haircutting leaves the subject's hair cropped close to the scalp. The cropped hair is then shaved with electric clippers, lathered with soap and shaved with a razor. The eyebrows are similarly removed. In the work, these actions serve to symbolise a loss of life and a gradual transition towards death through a removal of expressive and identifying features of the subject.

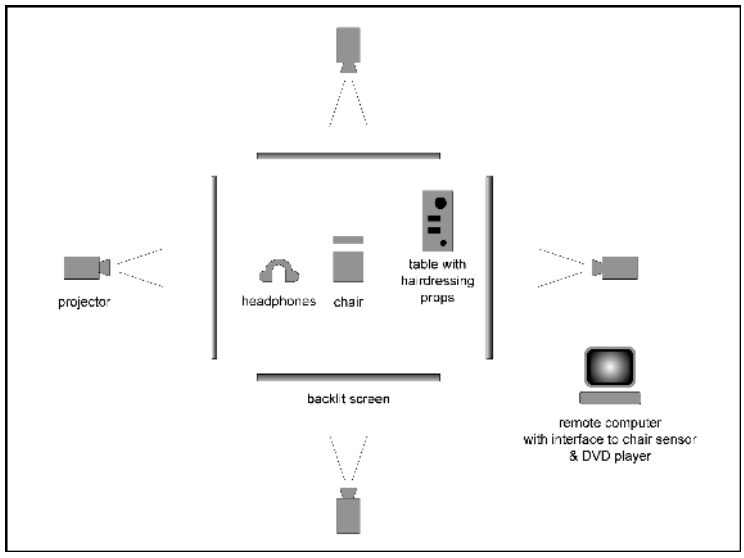

Figure 1: Installation design


Figure 2: Video detail (video by Justin Brickle)

During videotaping the subject wore *binaural microphones*, one placed in each ear, using special fittings. These microphones were of a standard *lavalier* type

often worn on the lapel by television presenters. The microphones when ear-mounted, allow a second listener with headphones—either monitoring the microphones directly or listening to a recording—to hear sound in three-dimensions and from the perspective of the wearer. It is as if the second listener is listening with the ears of the first.

The physical design of the installation serves as symbolic recreation of the anechoic chamber shown in the video. This is done to suggest to the viewer that he or she is occupying the same space as the on-screen subject. As will be shown, with the video and particularly the sound, it conspires to suggest the subject and viewer are the same person. When the chair of the installation is unoccupied, images of the walls of the anechoic chamber are projected onto the four screens so as to retrace the lateral boundaries of the cubic space. Once the viewer is seated and dons the headphones, the video of the haircut commences. The viewer hears the sounds with the same orientation and from the same position as the subject, completing the tripartite illusion of co-location forged by physical design, video and audio.

The video from the installation is viewable online at the following address: www.reverberant.com/cl/video.htm. It is recommended that the reader watches this video.[3] Additional information and photographs of the installation are available at: www.reverberant.com/cl.

Resisting magnetic attraction

Electroacoustic composer and writer on cinema, Michel Chion, describes one of the fundamental audio illusions of the cinema as a "spatial magnetization" of sound by image (CHION, 1994, pp. 69-71; 2009a, pp. 247-249). He notes that generally, when we listen to sounds, our spatial interest lies not with the location of the sound, but with the location of its source, and that:

> *Traditional monaural film presents a strange sensory experience in this regard. The point from which sounds physically issue is often not the same as the point on the screen where these sounds are supposed to be coming from, but the spectator nevertheless does perceive*

3 Requires headphone listening with the left and right channels correctly aligned.

the sounds to be coming from these "sources" on the screen (1994, p. 69).

Figure 3: Installation detail

In cinema the need for spatial correspondence between the sound and its apparent source becomes somehow more relaxed. Chion suggests that a kind of "mental spatialization" is taking place in the viewer (CHION, 1994, p. 70). Never mind if the sound of footsteps coming from a single loudspeaker does not match the spatial progress of a character walking across the screen, the viewer will most likely fail to notice. The image somehow absorbs the sound through this magnetic action. Even if the walking character moves off-screen, the footsteps seem to follow "outside the field of vision—an 'outside' that's more mental than physical" (CHION, 1994, p. 69).

In *Close*, binaural sound resists the absorption of sound by the image. Sound becomes detached from the image or at least, through a vacillation in perception, can occupy one of two spaces: that of the screen and that of the space surrounding the listener. It is useful here to borrow several terms by another composer and sound theorist, Denis Smalley. These terms are used by Smalley to help explain spatial representations in *acousmatic music*, music—typically electroacoustic—that presents itself without visual reference. Just, as we will see, Michel Chion describes a *point of audition* in regard to screen-based images, Smalley writes of three aural perspectives that apply to the *acousmatic image* (2007, pp. 48-52). They are distinguished in terms of spaces and each of these exist relative to *egocentric space*, the "personal space (within arm's reach) surrounding the listener" (2007, p. 55). *Prospective space* is a frontal acoustic image and this has the greatest correspondence to the situation of classical cinema. Prospective space may be extended laterally to form a *panoramic space* while "circumspace—space around the listener—extends panoramic space

to encompass the listener, with the possibility of approaching or passing over egocentric space from all directions" (2007, p. 48). This notion of *circumspace* in a cinematic context applies to moments of experience in *surround sound* systems. The three spatial configurations of acousmatic music—prospective space, panoramic space and circumspace—constitute three "views" of what Smalley terms *perspectival space*. Just as the point of audition may shift in cinema, Smalley regards perspectival space "as the flux in relations among [the] three views" (2007, p. 48).

Close makes no direct attempt to vary perspectival space. In purely acoustic terms, and if we momentarily disregard the visual component of the work, sound is presented as a 3-dimensional circumspace focussed on the listener. In a perceptual sense, the circumspace is contracted within the egocentric space of the listener. This is due not only to the fact most of the recorded actions upon the subject took place within his egocentric space, but also because of the anechoic chamber in which the recording took place. By removing echoes, the chamber effectively removes the listener's perceptual means of judging the distance of sound sources—which is to a large degree aided by listening to echoes in relation to the direct source. As such, all sounds in the recording, including those of footsteps and objects shifted on the steel table, appear close and within egocentric space.

Where traditional cinema permits an absorption of sounds by images, the recording techniques used in *Close* create a tension in perspectival space between two competing elements. This lies between the strongly egocentric circumspace focussed on the listener and the apparent prospective space created by the onscreen source of events. Although multiple screens surrounding the listener de-emphasise prospective space through repetition and mirror the acoustic circumspace that envelopes the listener, the tension is never reconciled. It is compounded by design elements of the installation and further features of the sound as will be shown.

The null extension

In cinema, the degree to which sound creates a spatial sense beyond that of the visual scene, or conversely, the degree to which sound restrains space, is defined by Chion as *extension* (1994, pp. 86-87). We might draw an analogy here with the notion of the *acoustic horizon* (SCHAFER, 1977,

pp. 43-44; 2007, p. 84) from the field of acoustic ecology: “The farthest distance in every direction from which sounds may be heard” (TRUAX, 1999). In the artificial realm of cinema, the soundtrack can freely modify the acoustic horizon, extending broadly from the filmed scene, or contracting to focus our attention on some aspect within it. *Close* uses no ambient sound to extend the soundspace beyond the scene and as already mentioned there is a contraction of circumspace due to the effects of the anechoic chamber. The extension is therefore limited and remains unmodified throughout the video and faithful to the videotaped actions.

Close experimented with what Michel Chion describes as the *point of audition*. In traditional realist cinema, the point of audition is mostly situated with the audience. The audience looks at the scene presented before them and hears the sound of events in the scene from the auditory perspective of their seats. Occasionally the point of audition shifts, in an imaginary sense, to somewhere within the scene. This *subjective* shift happens for instance in moments of what Chion describes as *null extension*, “when the sonic universe has shrunk to the sounds heard by one character, possibly including any inner voices he or she hears” (1994, p. 87). Such a phenomenological leap required on the part of the viewer towards the scene, is sometimes aided in cinema by the presence of sounds that are known to be quiet by nature, sounds that “don't carry” such as that of breath present in a voice. These sounds act as “indices of proximity” to the viewer, “providing of course that the image, the editing and the acting all confirm the spectator's hunch” (1994, p. 91). Like cinema, the null extension audio in *Close* was recorded in close-up. The microphones used were highly sensitive and captured the most intimate sounds of the subject, his breath, the sound of his hair falling when cut, the sound of his head being shaved. Even without the 3-dimensionality of the binaural recording, the apparent closeness of these sounds draws the listener towards the action.

The very fact that the subject remains mute throughout the haircut further reinforces the idea of an onscreen point of audition. In the language of cinema, his muteness indicates the possibility that he is listening, for his attention is not consumed in the act of speech (CHION, 2009a, p. 299). He,

like us in the installation, is an acoustic observer and we the listener hear with his ears.

In Cinema, the sound recordist's microphone might itself appear to be a point of audition. Like the camera, the microphone plays an active though invisible character. The microphone must however “remain excluded not only from the visual and auditory field (microphone noises, etc.) but also from the the spectator's very mental representation” (CHION, 1994, p. 93). In other words the microphone must remain completely transparent and cannot operate as a perceived point of audition. This is not a precondition of cinema but rather a “naturalist” convention and Chion notes that it is a status from which the image “has long been liberated” (1994, p. 93). Chion refers to the invisibility of both microphone and camera as *scotomization*.[4] *Close* ignores this convention and the binaural microphones are not hidden from the viewer. The visibility points directly to the subject as the point of audition.

Bodily separation

The binaural microphones go beyond suggesting a simple co-location of the listener with the wearer. They provide a precise auditory alignment of the two, simulating the subject's orientation with respect to the sources of sound. Because there is no left-right reversal of the acoustic image, the listener cannot imagine he or she is viewing a mirror. Sound sources near to the left ear of the subject are heard most acutely in left ear of the listener. Another mechanism to break any associations with mirrors, was the camera technique. Like cinema, *Close* makes use of the visual close-up and the direct look at camera by the subject to suggest the null extension. It is not a fixed perspective however and the point of view, unlike the point of audition, is shifted constantly. At

Figure 4: Video detail showing microphone

4 “Chion's 'scotomization' comes from the medical term 'scotoma': obscuration of part of the visual field, or the condition of having blind spots, caused by defects in the brain or retina” (Translator's note in CHION, 1994, p. 218).

times the subject is shown in a wide-shot, at other times in extreme close-up. The camera was also placed in a variety of angular positions and trained on the seated subject: below the subject for example or directly above, close to the ceiling of the chamber. The shifting perspective of the video diminishes the likelihood of the screens being taken for mirrors by the listener.

The afore mentioned *unresolved tension* in perspectival space comes into play here. A mirror would certainly encourage the viewer to assumes he or she is co-positioned with the source of the apparent reflection. Yet this was not the exact aim of the installation. Instead the listener is encouraged to view two selves: one seated in the hairdressing chair and bathed in a sonic circumspace—the listener him- or herself; and the other, a detached self, situated in the prospective spaces of the four individual screens. This mechanism aims to provide a sense of bodily separation in the listener, of stepping outside of oneself and looking back. While seated, the skewed camera angles projected on multiple screens render the listener airborne. The listener observes his or her proxy from the position of a floating spirit, constantly shifting location in space.

Visible and invisible sound

The production of *Close* involved the sound recording of videotaped actions and nothing more. It involved no sound substitutions, no overlaid atmospheric sounds, no music and no acoustic after-effects.[5] The great majority of sound sources are visible in the edited video and these sounds can be firmly classified as *onscreen* events and therefore exposed. Along with onscreen sounds, Michel Chion identifies two more imaginary spatial zones in the cinematic soundtrack. These are the *offscreen* and *nondiegetic* zones (CHION, 1994, pp. 73-75; 2009a, pp. 249-260) (CHION, 1994, 2009a, pp. 73-75) and are *acousmatic* in character, that is the source of sound is unseen. Offscreen sound has an invisible source, yet remains tied to the world portrayed in the film. Nondiegetic sound stands apart from it. It "is the widespread case of voiceover commentary and narration and, of course, musical underscoring" (1994, p. 73).

Some sounds traverse the boundaries of these zones however, so-called *on-the-air* sounds for

5 Noise-reduction techniques were however applied to remove camera noise where necessary.

example. These sounds, such as those from telephones, public address loudspeakers and radios, may be either featured onscreen or left offscreen (1994, p. 74). Ambient sound too, “envelops a scene and inhabits its space, without raising the question of the identification or visual embodiment of its source: birds singing, churchbells ringing” (1994, p. 75).The voice of a character in a film who is speaking, yet whose face is turned away or obscured, takes an ambiguous position across onscreen and offscreen zones. An extreme manifestation of this kind of character is the so-called *acousmêtre*, a voice character whose voice is acousmatic, yet the voice remains integral to the plot. Much of Chion's book *The Voice in Cinema (1999)* is devoted to this very topic.

Figure 5: Video detail

The subject in *Close* remains mute throughout the video. He does however breath audibly in the opening sequence. Visible signs of the breathing are however not obvious. Chion notes that internal sounds of characters such as those of breathing and heartbeats also straddle the distinctions of onscreen and offscreen. So too the sounds of inner-speech: the voice of a character's “conscience, of his memory, or his imaginings and fantasies” (CHION, 1994, p. 74). He gives names to these two types of internal sounds as *objective-internal* and *subjective-internal* sounds respectively (1994, p. 76). Where an inner-voice in cinema is “heard in sound closeup without reverb”, it is one “likely to be at once the voice the spectator internalizes as his or her own and the voice that takes total possession of the diegetic space” (CHION, 1994, pp. 79-80). We might consider that objective-internal sounds can be similarly swallowed by the viewer and fortuitously, the binaural recording technique helps encourage the internalisation. Binaural recordings when made with microphones mounted on a human head—like dummy-head mounted microphones commonly used for recording—create a strong sensation in a listener wearing headphones, that ambient sounds are external to the head and

body. If the person wearing the microphones however makes utterances or breaths audibly during recording, these are heard by the listener as interior sounds. This is the case in the opening sequence of the video and breath serves to anchor the advancing circumspace to the listener. The interior sounding of the breath is another clear indicator that viewer and subject are one.

Breath and life

An anechoic chamber was included in the narrative to one of the most significant musical avante guarde conceptions of the previous century: John Cage's notion of *silence*. Cage observed in a chamber that there is no silence where there is life. In the chamber Cage's life was laid bare: the whoosh of blood circulating in his veins and the buzz of his nervous system (CAGE, 1973, p. 8). The anechoic chamber is like a magnifying glass or high-definition video, it is rather brutal and unforgiving in what it exposes. It showed the fragility of life and its tenuousness—tiny sounds easily extinguished. *Close* however was not videotaped in an anechoic chamber to make any connection with Cage or initially, in direct reference to life or death. The anechoic chamber was chosen for its sound isolation capacities and for it stunning appearance. The strangeness of the environment soon became evident: the brittleness of the sound; and the absence of cues that help the listener judge the distance of sounds. The anechoic chamber, given its acoustic property of near-total sound absorption, sounds like a vast and silent desert. Yet in volume they can be small and suffocating, the sound-absorbing foam prongs that line every surface, sharp and aggressive. It is not a comfortable space. It suggests a life on the brink. The anechoic chamber gave *Close* its alien look and its dry, clinical ambience. Although the binaural microphones used during production were extremely sensitive, they were not able to record the sounds of the vascular or nervous systems. The base sound of *Close* is the breath.

Despite the emphasis on the null extension and the intimate visual and acoustic relationship forged between the listener and the subject, *Close* is a near *silent film*—or as early cinema is described in France and here in Brazil, a *mute cinema* (CHION, 1999, pp. 7-8). The breath in the opening sequence and a swallowing sound elsewhere in the video, are the only audible expression

of life from the subject. There is a conspicuous absence of self-made sounds and especially of thought—of an inner voice. Nor does the subject speak. The subject is absolutely passive throughout and accepting of all actions. In the final sequence of the video after all hair is cut and shaved from the head of the subject, he remains motionless. The camera location becomes more distant in the final part of the video, and the acoustic ambience, silent. The acoustic transition and the loss of the visual features of the subject due to the haircutting, the ultimate stillness of the subject, sum together to suggest a death. The subject's passivity suggest an acceptance of this and perhaps a complicity with the actions. It suggests self-destruction or perhaps the suicide of the subject.

Touch and Reflex

We can now imagine the hairdresser as killer or accomplice. I prefer to see him however as an automaton, detached from any sentiment and simply fulfilling his role as hairdresser. He too is a near silent and mute character. It is the sound of his scissors and other hairdressing apparatus that are audible—sometimes his breath and the brush of his clothes. A strange outcome of *Close* is that some of the actions of the hairdresser are *felt* by the listener. The high fidelity of the binaural recording and its amplitude in the headphones are such that participants at the installation commonly mention a life-like quality of the virtual haircut. From my own experience of listening to *Close*, it is in the loudest moments of the soundtrack that sound appears to manifest quasi-physical phenomena. During the electric razor sequences my head resonates with the machine and at times I can feel the touch of the instrument on my neck and at the rear of my skull. A similar phenomenon occurs in the moment where a water spray bottle is used. With this I can feel fine droplets of water landing on my face. Neither of these phenomena are apparent to me however with the sound at a low amplitude. In the case of the electric razor, we can surmise that the skull is indeed resonated by the sound delivered on headphones. This resonance could potentially be perceived as touch. In the case of the water spray we must however concede that the imagination is involved in producing the sensation of contact with water—the imagination making associations with experiences in memory.

This is particularly plausible in my personal case—because I was the actor in the role of the seated subject and therefore have a memory of the events. I suspect however that my phantom sensations were due to memories of other experiences of barber shops and hairdressing salons.

For most individuals listening to *Close*, we can assume that their listening attitude is one directed towards the identification of sounds. It is a *mode* of listening that electroacoustic music pioneer Pierre Schaeffer defined as *Écouter*, *mode 1* in his 4-mode system *quatre écoutes* (CHION, 2009b, Item 6; SCHAEFFER, 1993).[6] The sounds heard in *Close* act as indices to particular causal events and these identifications by the listener are guided and reinforced visually by the actions onscreen. Because of the visual nature of the listening experience and also because of the concrete nature of the sounds, sounds remain rooted to their on-screen cause. It is difficult to imagine the sounds being anything other than the result of the onscreen action and they are not easily perceived in any abstract way.

How then can the sounds cause the imaginary phenomenon of touch? Denis Smalley has elaborated on Schaeffer's Mode 1 in his article from the early 1990s *The Listening Imagination* (1992). In the article he proposed that in the absence of an obvious cause of a sound, cascading networks of imaginative associations with prior experience are created in the listener. He wrote of nine *indicative fields* which indicate, in musical contexts, both sounding and non-sounding experience. These non-autonomous fields include: *gesture*, *utterance*, *behaviour*, *energy*, *motion*, *object*/*substance*, *environment*, *vision* and *space* (1992, p. 521). The indexing of individual fields is fluid and the listening experience may form networks of the nine indicative fields, so-called *indicative networks*.

In his writings these indicative fields and networks often have a rather discretionary character and the listener may, if he or she wishes, control the imaginative experience. This is not the nature of my own experience listening to the razor and the spray and in which both have a clear visible cause. While I conclude the sensation of touch is largely imaginary, the imaginative product of my

6 All four modes however can be activated in listening to *Close*.

experience is reflexive and consistent in nature over various listenings. The phenomenon I experience has perhaps more in common with Michel Chion's understanding of *causal listening*—Schaeffer's Mode 1 under another name (1994, pp. 25-28). He writes of an ambiguity in identifying the cause of a sound, propagated by visual events. “In a battle scene” for instance, “a popping balloon is a cannon” (BLESSER; SALTER, 2007, p. 182). According to Chion there is a fusion in causal listening with other factors such as social context, imagination, vision and memory. It is possible that just as sounds may be confused with one another under certain contexts, that sounds can also trigger the involuntary sensation of other non-auditory sensory phenomena. This is different to Denis Smalley's notion of indicative fields and as mentioned, the phenomena I experienced were reflexive and unintentional rather than discretionary. The quasi-tactile phenomena of *Close*—and other such reflexive non-discretionary indicative events—could be referred to as *automatic indicative relationships*.[7] In *Close* these are relationships that propagate not from sound alone—an acousmatic situation—but from multi-modal experience.

Unconscious associations

One is reminded here of the *relational objects* of visual artist Lygia Clark and her psychoanalytical practice of the *estruturação do self*—the structuring of the self. While it is beyond the scope of this article to give a detailed description of this practice, it involved the placement and manipulation of objects on and about the body of a participant—the *patient*. Conducted over multiple therapeutic sessions, the objects were used to reveal in the patient, hidden memories which in symbolic form had been corporeally encoded. Noting advantages over the *talking cure*, Clark herself wrote:

> *The body “appropriates” touches, contacts, organs of adult bodies, painful accidents which affect it, of unlevelling of spaces, of intervals of corporeal sensations, pleasant or not, in a process of symbolic metabolisation which makes up the ego. Set phrases like “putting a foot in it”, “wooden faced”, “air head”, etc., come from experiences of sensations through which the body passes and which are later symbolised. ... The “relational object” in contact*

7 The word *reflexive* has not been used to describe this type of phenomenon as Smalley uses the word more generally to denote listening behaviours with a subjective focus (1992, p. 520).

> *with the body brings out the affective memory, by means of its physical qualities, bringing experiences which the verbal aspect cannot detect (1997, p. 326).*

The practice was featured in a documentary video made in 1984 entitled *Memória do Corpo*—Memory of the Body (CARNEIRO, 1984). The video shows Clark explaining the individual relational objects, an interview with one of her psychoanalytical clients, and the therapeutic practice itself. The various objects had a wide variety of forms and could impart a broad-range of sensory stimuli. The sensible dimensions afforded by the objects and their application included: texture; volume; density; balance; mass; temperature; taste; motion; smell; sound; substrate/support and light. While patients played mostly a passive role in the therapy, they were permitted to *act out* upon selected objects at the end of the session—that is, to actively manipulate one of the objects with their hands. In Clark's practice, this shorter component of the therapy allowed the patient to physically confront his or her own fantasies evoked during the session.

Where *Close* acts upon the body with sound and visual images and objects, Clark took a more intrusive and multi-modal approach, placing objects of various sizes, weights, textures and so on against the body. She also used sound and manipulated audition. Sometimes sounds sounds were the by-product of an object acting against the body of the participant. At other times the sound was deliberately directed at the participants ear. In common with *Close*, her application and manipulation of objects, were structured in time and events followed a pre-determined sequence. In contrast to *Close*, Clark employed acousmatic experience and additionally she forged a sensory regime of opening and closing other senses. With conch shells she selectively closed certain frequencies of sound to audition. She blindfolded participants and she also selectively used weights to emphasise and de-emphasise parts of the body. While *Close* levels a less varied, personalised or intrusive sensory intervention upon the body, it does achieve some degree of intimacy comparable to that afforded by Clark's objects. It also achieves a certain disconnection from normal experience. With Clark, this disconnection was achieved through the acousmatic and other filtering effects. *Close* creates a transformation or restructuring of the individual through the use of: the null

extension; automatic indicative relationships; and the elements of the installation that suggested co-location with the onscreen subject.

Antipathy and beyond

Lygia Clark aimed to unravel unconscious experience which had accumulated the body and her work was presented in a psychotherapeutic context. *Close* has no therapeutic purpose although the work has produced effects that some participants have found unsettling and evocative of personal anxieties. We can postulate that these were the expression of indicative relationships beyond the automatic type described above and perhaps sound can indeed indicate past experience that intersects with trauma unconsciously stored. At an installation in Melbourne, one woman responded that the haircut was an act violence which defaced the seated subject. It was an action she would not have wished upon herself. Far from empathising with the subject, she felt an antipathy toward him she described as *hate*. She rejected the subject and also the idea of sharing his acoustic experience. This ran contrary to one of the main aims of the project, which was to promote a shared experience between the listener and the onscreen subject. The woman's hatred for the subject mirrored the *acting out* exhibited by participants in Clark's process. Her reaction, especially the anger, potentially points to a personal experience of trauma or abuse.

Close originally set out to examine the possibility of empathy between an audience and a character experienced visually as well as virtually through sound. It was originally assumed that empathy was a necessary requirement to embody the virtual character—to accept a virtual self. Given the reaction of the woman above, it seems this may indeed be true. The expression of antipathy towards the character was however an unexpected and fascinating outcome of the project. The ambivalence we hold towards others and towards ourselves is a theme that will be revisited in a work in progress, *O Espelho*.

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