[6]

Synhaptic Sensibility

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The concept of a "synhaptic sensibility" expresses a new relation between sight and touch that comes to power with new haptic and synhaptic technologies. These technologies work on a variety of haptic data and change our affective relationship with each other and with ourselves. They transform our affective live. With regard to the power of political and social control synhaptic technologies are local and imply a synchronized multiplicity. This puts them in opposition to the centralized invisible oversight that characterizes the model of the pan-opticon. Therefore "synhaptic sensibility" can help to understand how "control societies" are related to the current transformation of the properties of touch and sight and to the communication of affects.

The Man with Butterfly Hands

In his “Letter on the Blind," Denis Diderot relates a dialogue with a blind man. At one point, the unnamed blind man from Puisaux is asked whether he would like to have eyes, that is eyes that see. “If it were not for curiosity,“ he replies, “I would just as soon have long arms: it seems to me my hands would tell me more of what goes on in the moon than your eyes or your telescopes” (Diderot 1916, 77). Diderot does not comment on the blind man’s answer. There is no way to tell whether this repartee is true or whether it was invented by Diderot. Usually, it is interpreted as showing that touch gives a fuller, and more affective, presence than sight: all that touch would lack is distance. But, if one considers the situation seriously (well, not exactly seriously, but with a sort of stubbornness), one must realize that such long arms would be completely unpractical in daily life.

Imagine moving around in a crowded room with arms that can reach to the Moon! If they are to be as useful as eyes, these arms would have to be extendable, elastic or telescopic, so that they could adjust to the distance of the object to be touched. In fact, the best scenario would be to have flying hands that were remotely controlled. One could imagine such hands, in a story. Maybe Diderot’s character would have some kind of implant in his brain, or his brain would have been rewired so that he can move his flying hands at will: he imagines moving his natural hand and it is his flying hand that takes off in the desired direction. Some experiments in neuroscience involve such apparatus: the subject imagines moving his arms, an implant or an EEG helmet catches the signal in the brain of the patient, and the signal can be used to move the cursor on the screen.[1] Or maybe the character was born with these flying hands, like a kind of superhero or extra-terrestrial being. In any case, let us admit that he moves his flying hands just as easily as I move my hands. Would it be enough?

The character is standing in a crowded room; Diderot and his people are asking him about his blindness and his Bluetooth hands. To recognize a newcomer, who does not say a word, the blind man would have to touch the stranger’s face, which the other might resent. The hands would be as useful as eyes only if the blind man could use them to sense other people without them feeling too uncomfortable. So, ideally, the hands should be invisible and without weight, like transparent butterflies, which could land on my skin, feel my face, without me feeling their touch. If the butterfly

1 For instance, an EEG pong game. http://people.ece.cornell.edu/land/courses/ece4760/FinalProjects/f2015/vkm22_nk437/vkm22_nk437_old/vkm22_nk437/main.html

hands were light enough, I would be no more aware of them than I am aware of someone watching me from behind. If, in a crowded room, I were to look in a mirror and notice someone staring at my back, I would feel uncomfortable. In the same way, I would feel some kind of itch on my cheek, and I would realize the man is feeling my face with his flying hands. I might ask: “Why are you doing this?," as I might ask someone looking at me with persistence: “Why are you staring at me?”

Now, the butterfly hands, the long arms that Diderot’s blind man wished for, become more interesting, and one can imagine various uses for them, and various questions for the man. What relation for instance would he have to other people’s affects? Would he feel joy, or sadness through his hands? Would affects communicate to him? Or, being able to touch without being touched, would he remain remote to the emotions he could feel in others?

However, the butterfly hands have one major flaw compared with sight. When I enter a crowded room, I see all the people in the room at once (or most of them—some may be hidden behind others), and the general architecture of the room, and where is the cold buffet for instance, and my friends, whereas the man with the butterfly hands, if he is blind, would be able to feel things, and faces, or bodies, at a distance, but only one by one. It would take him a long time to feel everything there is, and take in through his hands the shape of the room, and figure out who is there and where the buffet is.

Let us then add one more technological fantasy to the butterfly hands: there are not only two of them, but many, flying in a swarm. Now, when the man enters the room, he sends his many hands through the room, they feel the floors, and the walls, and the people, and the food on the buffet. Then, after a few moments, he would know as much as—or rather more than—I do simply using my eyes. Of course, it would take him a few moments—his hands would have to trail all over the room. And it would take a powerful mind to be able to reconnect, and synchronize all the information, the tactile feelings that his many hands transmit to him. Maybe his brain is a super-computer, or it is linked to a super-computer.

In any case, the impression, the “view” that he gets of the room, so to speak, is still different from the one that I perceive with my eyes. Obviously, it is made of tactile rather than visual contents. It contains aspects that I would not usually see, like body temperatures. It probably involves a more intimate relationship with the people in the room. But this “view," which is not strictly speaking a view, also has a different structure. The

impressions that these many hands give our superhero (or maybe supervillain—we don't know what he will do with his hands) are still local, and temporal. Each hand feels a trail of sensations, like when I move my hand on the table and feel the roughness of the wood and the slight bumps that mark the joints between the planks, one after the other. The man has to reconnect all the local impressions in a structured view that the eye gives me at once. Or maybe he does not need to reconnect these impressions and can live, and manage, in a world that is made of many disjointed local impressions. Maybe he knows in this way enough about his surroundings to be able to orientate, and interact with things and people. In fact, we can give a visual equivalent of this. Imagine that I see the room through many cameras scattered about: there is one on the buffet, and one on the left corner, and one on the ceiling above a group of people talking, etc. I look at all the images that these cameras record on a multitude of windows on the screen of my computer. Of course, now I am separated from the room by a screen, and I have lost most of the affective presence of the people that I can see, but my multi-angled vision has a structure similar to the experience of the man with the butterfly hands. It is made of visual impressions rather than tactile impressions, but these have a similar structure. We both have multiple flows of two-dimensional impressions (tactile or visual) that we must recombine, resynchronize in order to identify particular objects. It is as if both "views" were produced by a single sense, technologically mediated, and which can operate with visual as well as tactile contents. I will call this sense, or this way of perceiving, "synhaptic." I will discuss this term at length below.

Now, my point in this paper, which the parable of the man with the butterfly hands intended to illustrate, is that contemporary technology transforms our sensibility so as to give birth to a new sense, a new way of perceiving, whose structure can be filled with visual, tactile or in fact auditory impressions (it seems we cannot taste, nor smell through our computers), but which has properties that none of our natural senses have. It is different from vision, as it is different from touch. It represents a transformation of sight and of touch which supersedes both of them, and operates with visual as well as tactile contents.

As I will illustrate through the course of this paper, the technologies that bear on our sensibility, and in particular on our touch, are *de facto* affective technologies: they *transform our affective relationship* with each other and with ourselves, for this affective relationship essentially operates through touch. Thus, the properties of touch, the way it operates, the kind of contact it involves in space and in time, its reciprocity (if I touch your hand with

my hand, you touch my hand with your hand) represent key elements in the communication of affects. Transforming the properties of touch is transforming our affective life.

Now, when I say that contemporary technology is giving birth to a new "synhaptic" sense, it is not that someone, some mad scientist, a kind of Dr. Griffin (to take up the character of H. G. Wells, in the novel *The Invisible Man* [1897]) is working in his home laboratory on a pair, or a swarm, of butterfly hands. One does not necessarily need these hands. The security man who is sat in front of his screens, with a dozen cameras giving him various views of the underground parking, is already perceiving the surrounding space synhaptically. His perception of the parking lot has visual contents, but these visual contents share the same structure as the butterfly hands in the above parable. I will mention below several devices that actually transform the properties of touch so as to enable it to operate at a distance and without reciprocity, and in this way make it part of a synhaptic sensibility.

I believe that contemporary technology produces a synhaptic sensibility. Nevertheless, I wish to add a caveat to this claim. I do not claim to be a scientist (nor a physicist, nor a sociologist, nor a natural scientist, nor a human scientist) or to be able to predict where we, or technology, are going. I only claim to be a philosopher, and if I can say anything about what is, it is through the domain of the possible. As I defend elsewhere (see Cassou-Noguès 2010; 2016; 2018) I believe that philosophy or, to be more precise, metaphysics does not describe the Real but the Possible, as it is opened up by fiction, stories that work. Some stories work, some do not work: that is to say, we adhere to some stories and not to others. One cannot imagine any situation in a story that works. Though I cannot develop these claims here, stories that work, stories to which one adheres at a certain time and place, delimit a certain domain of the possible which, to me, is exactly the domain on which metaphysics relies.

Thus, to be more exact, my claim would be that contemporary technology makes possible a synhaptic sense, which represents a different form of perception and enables another kind of communication of affects and another form of surveillance. I will mention below real devices, but in principle, as a metaphysician, I could dispense with examples or make them up or lie about them, as long as these examples work as stories.

Sensibility Extended, from Descartes to Wiener

At the beginning of his *Dioptrique*, René Descartes illustrates his theory of vision with an experience of blindness. Imagine that you are walking at night on a path in the forest, without light. You would use a stick to feel the obstacles on your way.

> No doubt you have had the experience of walking at night over rough ground without a light, and finding it necessary to use a stick in order to guide yourself. You may then have been able to notice that by means of the stick you could feel the various objects situated around you, and that you could even tell whether they were trees or stones or sand or water or grass or mud or any such thing. It is true that this sensation is somewhat confused and obscure in those who do not have long practice with it. But consider it in those born blind who have made use of it all their lives: with them, you will find, it is so perfect and so exact that one might almost say that they see with their hands or that their stick is the organ of some sixth sense given to them in place of sight. (Descartes 1988, 153)

Of course, it is a bit surprising to introduce a theory of vision using the example of a blind man. But, in Descartes' world, vision is a sort of touch. Descartes' world is filled with particles. There is no emptiness. A light, such as a lamp, emits particles that push other particles in a line which eventually reaches the eye. Or this line of particles pushing each other bounces on the table, which resists and sends another stream of particles on a line which reaches the eye. So, the eye feels the pressure of these particles, and from this pressure the mind produces an image: the lamp, and the table on which the lamp is placed, just like the hand feels the pressure of the stick that hits a stone on the road, and the mind deciphers in this pressure the form of a stone. Thus, the analogy between vision and touch is certainly justified in Descartes' world.

However, in this passage, technology, a rudimentary technology (we have just picked up a branch on the road and cut off all unnecessary leaves), also appears as a means to transform and extend our sensibility. More precisely, technology seems to bring together, or bring closer, sight and touch. Through the stick, touch can operate at a distance. It becomes a sort of sight. Sight and touch are not defined by their contents (what I see, colors for instance, and what I touch, smoothness or roughness)—they are defined by their properties: touch is a sense of contact. But, precisely, technology can modify these properties and, in this way, transform our

sensibility or invent new senses that have the same contents (in the end, it is always colors, or textures) but have different properties and extend our relationship to the external world: the stick gives us a sense of distance that works in the dark.

Now, technology and science have changed since Descartes' time, and the blind man's stick may no longer be the right paradigm for our technology. In fact, the example of the blind man's stick points to a limit in the Cartesian technology that we have surmounted. To put a long story short, one thing that has changed is that we have discovered that perception is information, and information can be coded and inscribed on various material supports, so as to be transported, and possibly transformed, before it is again decoded. Thus, the contents of my perception, the sounds that I hear, are produced from certain variations of pressure in the air around me. But there are ways to abstract the structure of these variations, to replicate this structure on another support that can be transported in space or in time, and to produce again the same variations of pressure in the air, so that I will again hear the same sound, or not exactly the same sound, for in these operations of coding, transportation and decoding, some information may be lost and covered up by noise. The gramophone, the telephone, the photograph, are all examples of such processes. None works perfectly. Something is lost in these operations. At first, the photograph was black and white. We could not code colors. Then it was two-dimensional. But even the best virtual reality devices do not produce perfect vision. One still can see the pixels, or the colors are a bit wrong.

These operations also enable us to deliberately transform the message while it is coded. Or they enable us to decode the message into the contents of another sense. For instance, I can represent sounds as a moving curve on a screen or, as in the "hearing glove" on which Norbert Wiener was working, sounds can be represented by tactile variations, which the subject could understand as a language, just as those who are not deaf understand sounds as a language. Though it never really worked, Wiener hoped that his hearing glove would enable a deaf person to follow a conversation on the tips of her fingers.

The same operations also enable us to code information that we do not naturally perceive in the content of one of our senses. The radar codes the reverberations of sounds that we do not hear in terms of vision. In his novel *L'homme truqué* ([1921] 1990b), Maurice Renard imagines a man whose technological eyes would see electric circuits and electromagnetic fields.

Although the gramophone, the telephone, the photograph, and Renard's novel precede cybernetics, it is really Norbert Wiener who, relying on the example of the telephone, puts in place the theory of perception as information, which can be coded, transported, and decoded (cf. Cassou-Noguès 2014).

Now, the preceding examples are mainly concerned with sight and hearing, images and sounds, but the same theory of perception as information also works for touch. The tactile message, so to speak, can also be coded, transported, and decoded. As Descartes foresaw, with the image of the blind man feeling with his stick the obstacles on the road, touch can operate at a distance. But it is no longer a matter of "things," or particles, pushing each other. Information when coded can be transported in many different ways, through electromagnetic waves for instance. The stick could be broken in two parts, one in the hand of the blind man and one trailing on the road. The information gathered by this end of the stick would be transmitted by, say, Bluetooth to the other end, and the blind man would feel pressures and vibrations in his hand so as to discern the obstacle on the road at a distance, at any distance. There are two consequences that concern the extension of our sensibility.

First, in practice, the stick of the blind man could only have a limited length, whereas the tactile message suitably coded can be transported at any distance, in space or in time. There is no limitation in principle. We could touch at any distance, in space and in time. I will call this *telehaptics*. But, second, the operations of coding and decoding, the breaking up of the blind man's stick, enable us to separate action and reaction—to disconnect touching and being touched. When we shake hands, I touch your hand and you touch mine, or my hand touching yours is also touched by your hand. The extension of touch through the blind man's stick does not change this reciprocity. If the blind man walking on the road hits a passer-by with his stick, this person is touched, and would look up to the blind man, and maybe angrily grab the stick: he would feel the blind man's hand resisting on the other hand of the stick. Being touched is still touching. But we can now interrupt this reciprocity with precision. This is at the basis of what I call *synhaptics*.

Haptic Technology

TeslaTouch is a system developed by Disney Research[2] that enables the user to touch various materials on a screen: paper, sand, the fabric of a cloth, etc. The user moves her finger on the screen and feels the texture of the material. The system seems to have been designed for online shopping. Equipped with such a screen, the virtual customer would be able to touch her clothes before buying them. In a sense, the device abstracts the texture from the reality of the object so as to transport it through space, or time.

Cybergrasp, developed by the company Cyberglove, is a glove that enables the user to take a virtual object in her hands.[3] The user wears a virtual reality mask in which she sees an object. Equipped with the glove, she can raise her hand and actually grasp the object. The glove has joints which fit to the knuckles of the fingers and are governed by small motors that can stop the hand that tries to close on the object. In this way, the glove forces the hand to remain in the position the hand would have if it held the object that the user sees in her VR mask. The user then feels the shape of the object in her hand, and the specific resistance that the object would have: holding a virtual tennis ball, the user would be able to squeeze it, whereas a glass vase would feel absolutely impenetrable. The system renders the shape and the elasticity of the objects. The texture is lost. As the glove introduces resistance into the movements of the fingers but not those of the arm, the objects that the user grasps and moves around seem to be weightless.

Various other tactile devices are used by museums to enable visitors to virtually touch objects from the gallery—a Greek vase from the tenth century BC, for example. All these systems participate in what I call telehaptics: the possibility of touching at a distance through space or time (for after the system has been put in place, if the vase was broken the user would still be able touch it). It is like a telephone, which enables the user to speak, or hear, at a distance from their interlocutor. Of course, some qualities, some aspects of the thing that it is touched are lost in the process, or transformed, just like my friend's voice on the telephone. The blind man's stick, from Descartes' *Dioptrique*, has been indefinitely extended, extended and improved—the blind man could break the Greek vase with his stick, whereas the user of TeslaTouch won't stain the cloth with her finger. She touches the cloth but this touch has no effect on the thing. The reciprocity

2 https://la.disneyresearch.com/publication teslatouch-electrovibration-for-touch-surfaces/

3 www.cyberglovesystems.com/cybergrasp

of touch is already in question. Certainly, the glove might wear out through her touch. But her touch has no effect on the object that she touches. She does not touch the glove. She touches a vase through the glove, like she might look at it through her glasses, if she were short sighted. We do not usually see our glasses. We see through them. In the same way, the glove is relatively transparent. It represents a prosthesis enabling a new kind of sensitive experiment, opening a new sense (a sort of sixth sense, to take Descartes' expression) that has new properties.

The Hugshirt is a kind of T-shirt that fits tightly to the body. One notices bizarre patches, on the arms and the shoulders. These patches (which are placed on those parts of the body that touch when two people hug) can both record and simulate a hug. That is, they are able to record the pressure and body temperature when the user hugs herself, and they can also impress pressure and warmth on the skin of the user when she is sent a hug at a distance. So, if two friends, A and B, wear Hugshirts, A hugs herself and, through her phone, sends the hug to B, whose Hugshirt will then slightly squeeze and warm her so as to make her feel A's hug. If A does not wear her Hugshirt, she can still send a hug through her phone. If she has recorded previously the parameters of her hug, this will be the hug that her friend receives. If not, it will just be a standard hug.

In this way, hugging can be done from any spatial or temporal distance:

> The Hug Shirt™ records a hug like you would record a movie and delivers the data to your mobile … Sending hugs is as easy as sending a text message or chatting, and you are able to send hugs while you are on the move, in the same way and to the same places you are able to make phone calls (Rome to Tokyo or New York to Paris).[4]

The system illustrates the idea of perception as information perfectly. A tactile impression (and a tactile impression that is felt in an affect of empathy) is turned into a message, a piece of information, which can be coded. As such, it is transported and decoded and felt again on the body of the receiver. Of course, the message may be impoverished, or transformed in the process, just as the voice on the telephone.

Hugging is both touching and expressing one's love or sympathy, communicating an affect without words but through touch. The communication of emotions that language makes possible through space and time has been extended to something more immediate, operating below language and through a mute touch. We could record our hug to send it to our loved

4 https://cutecircuit.com/the-hug-shirt/#after_full_slider_1

ones after we are dead. It is not that we would hug from beyond the grave, as palpable ghosts: we would simply hug from the past.

To me, the uncanny aspect of the Hugshirt does not lie in this distance, which may be unusual for touch but to which we are accustomed in the realms of sound and vision. We are not surprised at being able to look at the photograph of someone who is long dead, or hearing her voice on a tape, or hearing her play the piano on a record. However, what is sent through the Hugshirt is not my hug to my friend but rather my hug to myself. It is my hug to myself that I record on my Hugshirt and then dispatch. It seems that these tactile messages, these affects, that I send to my friends are all directed towards myself. It is a bit like sending a selfie, where I am smiling to myself as I appear on the screen of my phone. I hug myself and send it to my friend. It is through this relationship to myself (maybe it is already a kind of auto-eroticism) that I can relate to others. In contemporary technology affective communication (when it takes place outside language) seems to be irremediably self-centered.

The same kind of mechanism used for the Hugshirt also appears in sex toys. There are different products, such as Max and Nora developed by Lovense. Max is a plastic vagina, and Nora is a plastic penis. The two devices are connected to the phones of the users. The movements that the man gives to his Max are transmitted to the woman's Nora, and vice versa, so that both devices are animated in rhythm and by the same kind of vibrations. They can be linked with a chat app like Skype so that both users can see each other. "Our interactive sex toys allow couples to have long distance sex. … The toys will respond to your movements and send the feedback to your partner."[5] Or, on the video featured on the website, "They may not shorten the miles that keep you apart, but when you use Lovense toys, you just might not notice." As already noted, the distance may be in fact spatial and temporal. Just as with the hug, which can be recorded and sent again later on, "the moves of each session [with Max and Nora] and audio can be recorded and played back any time you want."

The same thoughts apply to the Hugshirt as to these sex toys. Both devices stage the same kind of distance between the users while allowing them to remain in contact. They make possible the nonverbal communication of affects at a distance. They are self-centered. What the user transmits to his/her partner is a movement that is directed towards him/herself. The communication with the other operates through self-eroticism.

5 www.lovense.com/long-distance-sex-toys

But there is something more. The Hugshirt was first introduced in 2002, and obviously has not been a commercial success. In the same way, on the webpage of Lovense, when one looks at the photographs of the young and happy couple chatting on their phones, and then sees the drawings of the two sex toys vibrating beside them, it is difficult not to find something uncanny in the association. The photographs are sleek and carefully produced with nice lighting and sweet colors, of the kind you would see in romantic movies. The bright pink dildo is so incongruous that it seems to have been added as a prank. It's as if the two sets of images belong to different realities. And, in fact, they do. The only hint on the website of Lovense is a short review (the last of a long list but clearly visible nevertheless): "I had a client that did love Max for him and Nora for me. Great toys."[6] It is signed: @AlluringAli25. However, searching for Lovense on YouTube, one discovers several videos on the topic, "how to boost your webcam girl's income by using Nora," and dozens on "Lush," another dildo produced by Lovense, which this time works only one way: it is remotely controlled by phone, or through the internet, and is used in sex chat. This product is only one among many. They enable the client to control the vibrations of the dildo while the webcam model is using it. Among the devices mentioned, these remote-controlled dildos are the only ones that have been commercially successful. Precisely because they do not belong to "telehaptics": they do not provide touch at a distance. The client does not touch anything (except the phone, or the mouse of the computer)—he/she only defines the way the model is touched. Again, the reciprocity of touch is broken.

Invisible Versus Intangible

In a sense, the invisible man is as old as philosophy. In Plato's Republic, Socrates tells the story of a shepherd from Lidia, Gyges, who finds a magical ring that makes him invisible: he will kill the king then marry the queen and become king himself (Plato 2006). The example of Gyges is used to raise a moral issue: Would we do good if we could do bad and not be caught?

H. G. Wells has added another twist to the story. In the novel *The Invisible Man,* Griffin, a physicist, invents a complicated chemical process that makes him invisible—but living as an invisible man in Edwardian Britain is not as easy as it seems...

6 www.lovense.com/long-distance-sex-toys

The invisible man sees but cannot be seen. He is absolutely transparent. Scientifically, he is an aberration. If the man is transparent, his retina should retain nothing of the rays of light that go through him, so he should be blind. We do not know anything that is absolutely transparent in the real world. A panel of glass may seem to be transparent, if it is perfectly clean and if one's gaze is orthogonal to the panel. But if you take it in your hand, you will see the angles. If it was round, without angles, then it would deform shapes, so you would know there is something between you and the object you are looking at. However, in the story, the invisible man is absolutely transparent, and he is not blind: he sees, but he cannot be seen.

Now, let us try to imagine an intangible man, who could touch but not be touched, as the invisible man can see but not be seen. What would happen if I tried to shake hands with the intangible man? He would feel my hand in his but I would not be able to feel his hand in mine? So how could he hold, press or caress my hand, without me feeling his hand? It seems it is impossible. Indeed, a few years after Wells' novel was published, Maurice Renard Renard ([1912] 1990a) attempted to write a parallel story, *L'homme au corps subtil*, in which a physicist hopes to become intangible. But, when he can no longer be touched he loses his sense of touch in turn. He has become a sort of ghost. It is as if the invisible man had become blind in trying to make himself invisible. It seems there is no way to imitate in the realm of touch the invisibility of the invisible man. In fact, there are no stories, at least no story with the aura of Wells' novel, featuring such an intangible being in this sense (if there were, we would know, as we all know about the invisible man). Of course, there are stories about ghosts that cannot be touched, but they cannot touch either. There are stories about beings whom you should not touch: *Noli me tangere,* don't touch me, says Jesus Christ, after his resurrection. It's as if the invisible man was rendered invisible because one must lower one's gaze before him. There are beings that are almost intangible, like an ant crawling on my arm that I do not feel because my sensibility is too gross. It would be as if the invisible man was invisible because I am myopic.

Thus I claim (see Cassou-Noguès 2010 and 2016) that we cannot imagine, or write a story about, a character who would be intangible as the invisible man is invisible: a character that could touch but not be touched as the invisible man can see but not be seen. Considering that fiction opens up the possible on which philosophy is based, as I mentioned earlier, I take this asymmetry to prove that touch and vision, as we naturally experience them, have different properties: touch has a reciprocity that does not

belong to vision. It is possible to see without being visible but it is impossible to touch without being tangible.

It is precisely this reciprocity of touch that contemporary technology interrupts. Contemporary technology makes it possible to touch without being touched, or to be touched without touching. Wearing a Hugshirt, when I am sent a standard hug, I am touched without touching. When my hand is in the cybergrasp glove, I touch objects (say, a Greek vase from a museum) without leaving any trace on these objects: the hand that touches is intangible. Or take the man with the butterfly hands, in our parable at the beginning of the story. Even if I could feel his hand on my arm, I would think I was being touched by a bizarre device, a kind of plastic butterfly. But the man himself who moves his butterfly hand off my arm remains intangible for me. Or, for a last example, take the drone. A pilot may use a drone to reach a target, or to "touch" it, in a sense. The drone may be shot down but the pilot themselves is not touched as the target is touched. As with our butterfly hands, a drone is a means to touch a target that cannot touch you.

All these devices should be considered as prostheses. Of course, by a particular turn of attention, I can perceive the prosthesis as such. When I wear glasses, I don't usually see them. But, if they are new for instance and I am not used to them, or if there is a mark on the lens, I suddenly see the frame. In the same way, I might feel the fabric of the Hugshirt if it irritates my skin, or, if my hand is sweating, I might feel the slippery joystick that enables me to drive the drone. In these instances, when the prosthesis does not work properly, we have a tactile relationship with the prosthesis, and this relationship has a reciprocity. However, when the prosthesis works properly, I perceive through the prosthesis, which opens up a new relationship to another object, that is a new sense with different properties. I can't feel the joystick in my hand—I only perceive the target, which I can touch without being touched. None of these examples present an intangible character exactly similar to the invisible man, but they illustrate various ways in which contemporary technology breaks down the reciprocity of touch.

The character of an invisible man has been used to raise various philosophical problems. Plato's problem is moral. In Wells' novel, as in Paul Verhoeven's *Hollow Man* (2000), there is the problem of madness: would the interruption of the relationship to myself that I have in the mirror (when I can no longer see myself as I see others) lead to some kind of desperate solitude and, in the end, madness? There is also the problem of social invisibility, where invisibility is no longer power but weakness. In Ralph Ellison's

novel (1952), the invisible man is the figure of the African American in the context of the 1950s. It could be a beggar, or a hotel doorman whom no one looks at: people go in without looking at the man holding the door—he is invisible.

However, the concept of invisibility that pervades our imagination and has been used in these various perspectives is a relatively recent one. Despite Plato's story, before the age of cinema invisibility usually took on a different form. At least, the version of the story of Gyges that is most often represented in paintings (especially Dutch paintings from the seventeenth century) is not that of Plato but that of Herodotus. In Herodotus's *Histories* (2013), Gyges is a friend of the king Candaules. The king is proud of his wife and wants to show her to Gyges. So, he helps Gyges to hide in their bedroom where he can see the queen undress. Paintings usually represent the moment when the queen sees Gyges looking at her from behind the bed. They exchange a glance. In Herodotus' story, the queen will then convince Gyges to kill the king and marry her, thus making him king himself.

Of course, the position of Gyges in this story, being visible but hidden from the queen, until they exchange this glance, tells something of the position of the spectator looking at the painting, who herself sees the queen undressing and is hidden, in a sense, though not invisible. One can also wonder how a painting could have represented Gyges, in Plato's story, as an invisible man. To my knowledge, it has never been tried. It may be cinema, and James Whale's film of 1933 (*The Invisible Man*, Universal), which turns our attention from one version of Gyges to the other. Whale finds a way to represent the invisibility of the invisible man in the famous scene in which Griffin takes off his bandage, and his clothes, and disappears altogether.

Though these points should be discussed more at length, one could relate the age of painting to a certain form of invisibility: the invisibility of the hidden spectator. One could relate the age of cinema to another form of invisibility, invisibility as transparency: the invisibility of the invisible man. Now, the digital age would be associated with a fantasy of intangibility. We no longer dream of invisibility. It seems that in contemporary discourse, invisibility is rather a social invisibility, on the model of Ellison's *Invisible Man*: it is weakness rather than power. Power would be the ability to not leave "traces": hide the IP of my computer, and the numbers of my credit cards, etc. But leaving no trace is being intangible.

Synhaptic

In his book on touch and Jean-Luc Nancy, Derrida denies that touch evades technology and, possibly thinking of Descartes' blind man and his stick, he situates technology in the space [espacement] in between the two sides of touch, in between the hand that touches and the object that is touched, or in between the skins that touch (Derrida 2000, 337). This idea is perfectly illustrated by the Hugshirt. When they "hug" each other, the two partners are separated by the whole apparatus of contemporary technology, smart shirts, sending signals to smartphones, sending signals to distant servers, and data centers that record the hug before sending it back to a distant server, a smartphone, a smart shirt. This is telehaptics: touch at a distance mediated by technology. But it is an anecdotal aspect of contemporary technology. In fact, whatever the reason (because they are too expensive or because we are not really interested in them), the devices that enable telehaptics are not commercially successful. My claim is that, rather than telehaptics, contemporary technology enables a dissociation of the reciprocity of touch and, in this way, the emergence of a new synhaptic sensibility. In fact, it brings touch towards vision. But, conversely, vision is also brought towards touch.

In *Mille Plateaux*, Deleuze and Guattari rely on a distinction between haptics and optics. Obviously, haptics is related to touch, and optics to sight. But haptics and optics are not defined by this relation to touch and to sight, nor is this relation exclusive (Deleuze and Guattari 1980, 601ff.). Haptics and optics are defined by their properties. Haptics are local, optics global. Sight gives a global impression of the room, whereas, when I put my hand on the table, I have only a local sensation of the texture of the wood. In fact, to form a global impression of the object, I have to coordinate a multiplicity of local sensations. In this sense, close sight, when I bring my eye close to the object, is also haptic, for it also gives a local impression of the object.[7]

Now, contemporary technology relies on a local use of sight: local but multiple. Take the watchman in a parking lot. He would sit in front of a screen, divided in several windows where various cameras show him key points of the parking lot. He does not use his sight as someone entering a room, or a restaurant, and taking a global view of the place would. His sight is multi-focal. It is a multiplicity of local views. Translated into the realm of touch, it is as if he had multiple hands placed on an object, each giving him

7 It is true that though touch gives a local impression of the object, it also informs us of some atmospheric quality (temperature, moisture) that seems to be lost in close vision. In this regard close vision would be even more "local" than touch.

a local sensation of the object. He must then reconnect these multiplicities in order to form an idea of the object.

Thus both touch and sight become what I call synhaptic. Following Deleuze and Guattari, I define our synhaptic sensibility by its properties rather than by its contents. First, our synhaptic sensibility has the reciprocity of vision: I can sense without being sensed. This requires a technical transformation of touch. Second, our synhaptic sensibility is local as touch: it is "haptic" in Deleuze and Guattari's sense. Third, it is multi-focal, like the different windows on the screen of the security guard of a parking lot. This multiplicity may imply contents coming from different senses. The security guard may be listening to the radio on his computer while he is gazing at his screen. Or he may be listening to a playlist that another user of the musical platform may have assembled several days before. There are various ways of reconnecting these multiplicities, but all of these connections are related to time. Or, more precisely, they require content coming from different moments in time to be placed in relation to one another in order to form one present, or recapture an actual state of the object. When the security guard is listening to a playlist, he relates a stream of music programmed in the past to the present images of the parking lot (the music itself having been recorded at yet another time). If he notices someone trying to steal a car, he might rewind the footage from the different cameras in order to find out how the thief entered the parking lot. He is now trying to find out who the thief is, to see his face. To do this, the watchman needs to reorganize different temporal flux, and isolate in those images that relate to the same object, the thief. Thus, our technological sensibility implies a multiplicity of flux—these always need to be synchronized and there are various way to operate this synchronization: What is happening in the parking lot now? Who is the man I see on camera 3?

I use the word "synhaptic" to express this idea that our technological sensibility is haptic (though it has not the reciprocity of touch). It is local and implies a synchronized multiplicity. More precisely, I want to oppose synhaptics to panoptics. The panopticon is a prison imagined by Jeremy Bentham. The cells are situated in a circular building, and the guard is standing in a tower in the middle of the circle. The prison is built so that, from his vantage, the guard can see all the prisoners in their cells. The guard of the panopticon sees all that is happening. In *Surveiller et punir* (1975), Foucault considers the panopticon as the diagram of the disciplinary societies that have developed since the seventeenth century. In his "Postscript on the Societies of Control," Deleuze argues that we no longer live in these disciplinary societies, which could be represented by the

panopticon. Surveillance, claims Deleuze, no longer takes place in a prison, or a factory, or at school. We no longer need these closed institutions. Surveillance takes place outside, in the "open air": "The conception of a control mechanism, giving the position of any element in an open environment at any given instant (whether animal in a reserve, or human in a corporation as with an electronic collar) is not necessarily one of science fiction" (Deleuze 1992, 7).

My point is that the difference between disciplinary societies, modeled on the panopticon, and our control societies is not only that surveillance takes place outside of institutions. Surveillance uses another kind of sense model in which there is no need to see everything. The guard (of the parking lot, of a prison, of a city) does not need to see everything: he only needs to see what is happening at key points. Our cities are watched over by surveillance cameras but these do not capture the entirety of the city. The city is not a panopticon. If, for some reason, I wish to track a certain person who appears on the camera on the subway platform, I will rewind the images of the entrance to the station to find out when exactly the man got in. Then I will inspect all the cameras around the entrance: I catch the man on a camera belonging to a bank. Here I can see his face. I put it in the Google bar (let us say). I find the man's profile on LinkedIn. I now know who his friends are, and his colleagues, and where he went on holidays. Whether I am a policeman, or a computer doing data analysis, his profile will not give me everything about the man but it will give me a set of parameters, key elements that I can use to conclude whether the man is likely to steal a handbag, or whether he will buy the new phone that I advertise on the commercial screen of the subway. Again, I do not need to see everything, in an overall view, like when I enter a crowded room and look around to find out who is there, or like the keeper of the panopticon in his tower. I have a multiplicity of local, "haptic" data, and I isolate relevant elements in this data so as to perceive the actual state of my object. In this sense, I resynchronize these haptic data. Instead of the panopticon, we have a synhaptic sensibility.

As mentioned at the beginning of the paper, haptics is often considered to be the sense of affects. Indeed, some of the haptic technologies discussed above, the Hugshirt for instance, are related to the communication of affects. The same goes for our synhaptic sensibility in contrast to the panoptic model. The panopticon's guard observes the movements of his prisoners but has no access to their inner life. The synhaptic guard, or watchmachine, gaining access to relevant data, our profile on Facebook, the gallery of our photos on Instagram, our actual position, the books we read

on Amazon, may know much more about us, our "preferences" and, indeed, some of our affects: at least those expressed by the emoticons we have tagged on our photos on Facebook. It may know, predict, or manipulate by sending us the right commercials. Synhaptic technologies are *de facto* affective technologies.

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