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# Speculation about 1:0. On the productive difference of the interval

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# Speculation about 1:0

# On the productive difference of the interval

#### MARIE-LUISE ANGERER

In the film *Strange Days* (Bigelow 1995) a woman runs along the beach in Los Angeles while the man she meets – also running – is actually, 'in reality', sitting in a wheelchair and not only sees himself as running along the beach but above all 'has the corresponding sensation of movement'. Thanks to Squid technology, the man in the wheelchair sees and feels himself as someone running along the beach whom the young woman smiles at and waves to as she runs past. In *Strange Days*, the Squids are not just extensions of the sensory apparatus – as described by McLuhan (1964) –, but also intensifications of and even substitutes for this apparatus (instead of the person's own sensory input, those of others are 'implanted') – Squids record audiovisual data and convert them into proprioceptory data for the user: one's own sensations (and the associated visual material) are replaced by those of someone else.

Squids demonstrate and foreshadow how digital technologies enable new affective performances. *Strange Days* thus also calls upon scholars of media and performance to find a vocabulary and mode of thought that is able to reflect such affective performances and speculate about their implications. This chapter enlists affect theory and, more precisely, the notion of the 'affective interval' in order to think the productive, performative effects that the digital 'co-processing' between media technology and human body enables. To do so, the chapter first traces the genealogy of what is here called 'involuntary moments' and how they measurable and 'performable' through technological experiments. It then moves on to show how affect theory reframed these involuntary moments as 'missing half-seconds'. On this basis, the question of media technology can be posed as one of 'affective media technologies' or 'cybernetic machines' at work on even the smallest intervals. In conclusion, the chapter moves back to the 'perceiving

in motion' that is non- or pre-cognitively performed in, and through the affective interval.

# **CONCERNING SMALL, INVOLUNTARY MOVEMENTS**

No longer 'small' but not yet 'large'. HELLER-ROAZEN 2009: 209

There is a long history of pre-forms of perception, sensation, and bodily reactions. These various 'old' subject-less movements such as in Leibniz, Spinoza, and others are re-attracting attention in theories of digital environments and performativity.

In the following significant authors un-conscious and visceral movements are presented and their thoughts discussed in view of their influence of modelling the digital (time) gaps avant la lettre. Unlike Descartes, Leibniz denied that the mind was always active, insisting instead that there were moments and stretches of time during which consciousness registers ('perception'), but without conscious perception ('apperception') of such overly small movements. According to Leibniz, consciousness as understood by Descartes and his followers always necessarily misses something, as something is always happening but not everything passes the threshold of conscious perception. Spinoza, too, understood matter, movement and mind (in the sense of immaterial being) as a sliding scale, deriving the various degrees and densities of materiality as functions of movement versus intensity. In his reading of Spinoza, Gilles Deleuze explains this by saying that each thing defines itself by its length and breadth, by its longitude and latitude. The length of a body here refers to ratios of rapidity and slowness, of rest and motion between its particles, and its width comprises the sum of its affects, all of its intensive states (cf. Deleuze 1988: 165).

Leibniz used the monad as the smallest particle that represents a microcosm of the universe. This representation takes place via perceptions. Since every monad supposedly expresses the totality of the universe, it follows that they can only ever be excerpts or gradations. This means that not everything is expressed in the same way, but on a scale of conscious to unconscious, from large to small perceptions. One often-quoted example of this is Leibniz's description of the sound of the sea, which he says we only hear because we hear each single wave, which we hear in turn only because we hear every single drop of water. But it is clear, Leibniz explains, that no ear can really hear this:

"The impressions (effects) made on our ear by the individual waves, but which we are unable to distinguish between (discern) (because they are such changes in the external world as are not accompanied by changes in our bodily organs), are a typical example of petites perceptions. All significant changes within our bodies are soon noticed, thus leading to contents of consciousness." (Herbertz 1980 [1905]: 45)

Leibniz distinguishes between three kinds of perceptions. Firstly, those that cause no changes to the organs, although it should be emphasized here, as Richard Herbertz writes, that they produce no "noticeable change" (ibid.: 45), but they certainly do produce changes, just ones that go unnoticed. Secondly, perceptions that occur in too large numbers, thus not capable of being registered as separate by consciousness. And thirdly, those where weaker perceptions are obscured by more powerful ones.

Whereas Leibniz still viewed his monads as being driven by a creator God, Spinoza's "impersonal uniform substance" is characterized by infinite modes that can be understood as affections. Both Spinoza and Leibniz refer to affection using terms such as force, perspective, imagination and time so as to define this substance as a oneness and a multiplicity (cf. Ott 2010). Around the same time in the 17th century, the concept of reflexes for involuntary movements of the body began to spread in the field of medicine and physiology. In this field too, then, we see an interest in such movements taking place without the mind, without conscious control or intention. Descartes is generally associated with the theory of reflexes as he defined body movements that were not controlled by the mind and which didn't touch it either. But in the middle of the last century, in his analysis of the "emergence of the concept of reflexes", George Canguilhem showed how a concept – in this case that of reflexes – may already exist, even making an appearance in terminological form, but only later, by the interaction of various forces, coming to denote a generally accepted fact. According to Canguilhem (2008), one can see that Descartes is not actually speaking about reflexes, but that he was able to choose in his discussion between heart and brain, basing his assumptions on a single movement from the inside (centre = gland) to the nerves at the outer end, but not also assuming a movement in the reverse direction, although other medical theorists before him had done so. Before Descartes's time (referring back to Galen and Jean François Fernel), a distinction was made between three spirits, the so-called "vital functions" (Canguilhem 2008: 32). A "natural spirit" (located in the liver and acting via the veins), a "vital spirit" (located in the heart and acting via the arteries) and an "animal spirit located in the brain acting via the nerves" (ibid.: 32). Descartes attempts to trace all muscle movements back to one mechanism in order to free it from any mental

control. In Canguilhem's view, his theory of involuntary movement anticipates the notion of reflexes without establishing an actual reflexology. And this is because Descartes, unlike William Harvey and Thomas Willis, did not view the heart as a muscle, attributing the circulation of blood to its special warmth. As a result, Descartes remained attached to a mechanics by which animals and machines (automata) are placed alongside humankind in order to illustrate the artificial and thus natural quality of human muscle movement (cf. ibid.: 37-47). But as Canguilhem emphasizes, precisely this parallel opens up an "incomprehensible break" (between animal and human, as only the latter has a soul) which, as an "unfathomable secret" (ibid.: 72), in turn refers humankind back to God.

With the hypothesis of an animal soul, a further step was taken in the direction of reflex by Thomas Willis, following on from Descartes, bringing chemistry into play against mechanics. In Willis's theory of reflexes, the life force is associated with the force of light and, in contrast to Galen, he now assumed "the encephalic origin of all movement, without exception" (ibid.: 91). Accordingly, spontaneous or voluntary movements are controlled by the cerebral mind (cerebrum), while the natural or involuntary movements are controlled by the cerebellar mind (cerebellum) – two minds, then, one spiritual, sentient and rational, the other physical, sentient and lively. Humans and higher beasts share both minds.

Against the Zeitgeist of the late 19th century, Henri Bergson picked up this notion, writing that "there is no perception that is not prolonged into movement" (Bergson 1991: 69). Canguilhem, too, mentions this link to Bergson and remarks that he even picked up the connection between the energy of movement and that of light, a link first made by Willis, twinning the latent energy of the animal spirit with cosmic light (cf. Canguilhem 2008: 94). And later still, parallel to the cybernetic continuation of the Cartesian mechanistic view, Maurice Merleau-Ponty not only declared the primacy of movement, but also equated movement with meaning, naming it as that through which being reveals itself (cf. Kristensen/Merleau-Ponty 2012: 23-36, here 29). But this equation of movement and meaning, as Stefan Kristensen points out, means "that [there is] no ontological difference between motor function and affectivity, between the physiological and the psychological, but only gradual differences, varying modalities of meaning" (ibid.: 30).

From the mid-19th century, small movements and reflexes started to be measured, produced under experimental conditions in laboratories, captured and recorded using early forms of photography. And then, with the advent of film around the turn of the century, it became possible not only to intervene in the recording of movement (as life), but also to bring it to life as something existing in time, as a temporal sequence of images (cf. Kelty/Landecker 2002: 21-47).

These technical-media techniques (of recording and playback) convey the movement of the living as something living, presenting it as permanent delay, assomething always already deferred, although visually transparent. This is a procedure that can be mapped onto an existential life praxis that installs the delay in time (of life) as the space of the now.

Vital and temporal delays perform together the moment of the living now. Thus the most intimate moment of life is always a missed one, not yet, and already gone. This missing time will play an even more important role against the background of an encompassing cybernetic re-organization of the psychic and societal realm.

# THE HISTORY OF THE AFFECTIVE INTERVAL

In the mid-1970s, students of media and communication studies in the Germanspeaking world heard from Hertha Sturm and her team that they had discovered the 'missing half-second'. Above all, Sturm wanted the results of her research to reach those responsible for making television, so that they could draw the necessary consequences. In her view, television needed to broadcast slower image sequences, audio and video needed to be more congruent; the text or spoken language should follow the images or vice versa, rather than supplying additional information. For as the researchers found, their test subjects (mainly children) were unable to process the excessive amount of information 'properly' and their reactions were quite simply too slow for the abundance of images. As a result, children reacted 'happily' to sad image sequences and 'unhappily' to cheerful ones. The test subject's mood was gauged by measuring pulse, heartbeat and transpiration, giving a curve of physical arousal indicating mood – or rather allowing it to be deduced - with low frequency pointing to a depressive basic mood and high frequency pointing to high spirits. Surprisingly, these findings correspond quite clearly with the cybernetic theory of affect developed by Silvan Tomkins, who also, as described above, equated lower-level activity with sad and higher-level activity with happy mood. The reason for the anomalous

<sup>1</sup> Cf. Baruch Spinoza, on whose work Deleuze based much of his concept of affect, also mentions a correspondence between a lessened ability to act and sadness, and between happiness and heightened activity. He writes: "By emotion [affect] I mean the modifications of the body, whereby the active power of the said body is increased or diminished, aided or constrained, and also the ideas such modifications." (Spinoza 1883 [1677]: 130)

moods measured, according to Sturm and her team, was the 'missing halfsecond' – an amount of time that passed between perception (signal, stimulus) and reaction without it being clear what occurred during this 'lost time'. When her studies on the stressed television viewer (cf. Sturm 1984: 58-65; Sturm 2000) were (posthumously) published, however, they received little attention. Such an empirical approach to viewer research was scornfully dismissed (in the Germanspeaking world) in favour of an ideology-critical, psychoanalytical theory of visual pleasure (cf. Angerer 1999: 74-99). With hindsight, one can say that Hertha Sturm tried at the wrong time (too early?), by the wrong means, to prove that media such as television have an emotional impact and that this is crucial to the way their verbal and visual content is perceived. What makes this emotional impact so strong, Sturm argues, is a half-second between stimulus and response that makes the (viewer's) response appear somehow 'out of synch'.

Twenty years later, however, this out of synch affect makes a comeback in Brian Massumi's cultural theory of affect, contributing to a veritable 'affective turn' within cultural studies and media theory. "The skin is faster than the word" wrote Massumi (1996a: 217-239) in the mid-1990s, paraphrasing his definition of affect as an intensity belonging to a "different order": "Intensity is embodied in purely autonomic reactions most directly manifested in the skin – at the surface of the body, at its interface with things" (ibid.: 218-219).

Besides the definition of affect proposed by Gilles Deleuze, which is based essentially on Spinoza and his life force (conatus) and which in turn forms the basis for Massumi's work, something else was also at stake here - Massumi actually referred to Hertha Sturm's "missing half-second". For him, however, it became the terrain of affect. According to Massumi, affect is a virtuality which (as a dimension of the potential) facilitates actuality: "(P)astnesses opening onto a future, but with no present to speak of. For the present is lost with the missing half-second, passing too quickly to be perceived, too quickly, actually, to have happened" (1996a: 217-239). Unlike Hertha Sturm, Massumi sees the missing half-second not as empty time, but as a space of time in which too much happens to be perceived.

In the mid-1980s, Deleuze's two books on cinema, The Movement-Image and The-Time Image, initiated a major shift within film theory whose influence extends far beyond the discipline. In Deleuze's theory, perception is the amodal, asubjective part, while memory is a movement which (following Kant) affects itself, performing a kind of self-touching. Image and movement coincide and cannot really be separated. Besides Spinoza, what Deleuze was rediscovering for film and media theory here was above all Henri Bergson's theory of image and perception, a theory that has attained new importance in the context of more recent developments in media technology (cf. Hansen 2004).

With Bergson, we have arrived in the last years of the 19th century, whose second half was positively obsessed with missing time. In A Tenth of a Second (2010), Jimena Canales reconstructs the history of the search for and research into this missing space of time, documenting a huge interest within the disciplines of experimental psychology, astronomy, physics and metrology. Sigmund Freud was taken with it, as was Wilhelm Wundt at his institute of psychology in Leipzig. Others like Frances Galton saw the study of the missing split-second as a continuation of craniometry on a different level; those who react slowly have a sensitive personality, those who react quickly are aggressive, more intelligent. Gradually, this interest in measuring individual reaction times, 'personal equating' or 'personal error', also began to appear in art, with noteworthy early examples including Marey's chronophotography and Muybridge's proto-cinematography. As Canales writes:

"The second half of the 19th century was marked by a burst of new research in these topics. [...] Many scientists in France and elsewhere publicised numbers for the speed of nerve transmissions not only in animals, but also in humans. [...] Various instruments came into use: Pouillet's chronoscope; Helmholtz's rotating drums; Arago's chronometers [...]; Donder's noematachometer [...], Marey's drums; [...] In the span of a few years, reaction time experiments shifted from being largely criticized by the scientific community to becoming foundational for a new discipline." (ibid.: 28)

All this began with Hermann von Helmholtz, who wrote in 1850:

"I have found that a measurable amount of time passes as the stimulus exerted by a momentary electrical current on the lumbar plexus of a frog is propagated to the place where the femoral nerve enters the calf muscle." (Schmidgen 2009: 74)

Helmholtz was a student of Johannes Müller who, in 1826, formulated the law of specific sensory energy which states that each sensory organ always reacts to stimuli in its own way, whatever their nature. The eye, for example, reacts to mechanical pressure with a sensation of light. From this, Müller concluded that objective reality cannot be recognized, and that perception is something highly subjective, based as it is on and in the body. In his Techniques of the Observer (1992), Jonathan Crary accords a prominent place to Müller because he defined the eye and sight as being dependent on physical stimuli, thus, as Crary emphasizes, overturning the hegemony of a neutral visual apparatus.

But what Helmholtz had discovered with his measurements was not only the disappearance of time, but also and above all the delay of energy – the energy in a muscle is not exerted completely at the moment of the stimulus, "but to a large extent only after that stimulus has already ceased" (Schmidgen 2009: 93). Between stimulation and contraction, then, time (and energy) passes – not much, but enough to be clearly identifiable. The immediacy on which previous assumptions had been based turned out to be "an interval, a period, a space of time both circumscribed and empty – an interim, *du temps perdu*" (ibid.: 93).

Now, the author of À la recherche du temps perdu (1922-1931 [1913-1927]), Marcel Proust, had family ties with Henri Bergson, who was married to a cousin of Proust's. Lacking confidence in language, Bergson is said to have accepted only Proust as a writer, whose search for time went hand in hand with a search for its expression in words. At the height of his career, Bergson fought a never-resolved battle with Einstein on the question of time. The philosopher of 'elan vital' never abandoned his position that time is subjective, whereas Einstein famously defined time as independent of individual perceptions.

Henri Bergson understood the world as an image in which we move, ourselves a special kind of image. "There is", he writes, "no perception which is not prolonged into movement" (Bergson 1991: 111). But precisely this moment of not-yet-movement – the interval placed by Bergson between one movement and another – is described by Gilles Deleuze as the moment of affect, and then interpreted by Massumi as the missing half-second.

# **AFFECTIVE MEDIA TECHNOLOGIES**

Up the present, technical and living processes have developed separately. Until far into the 20th century, life and technology trod separate paths and were also kept separate in the field of theory. But media analyses such as that delivered by Donna Haraway in the early 1980s, which have been developed on since by N. Katherine Hayles, Alexander Galloway/Eugene Thacker and others, agree that media can no longer be defined as prostheses which amplify the senses, but that instead, they have attained a new immersive dimension, that they replace our senses, that they also make our senses more intense and more subjective, more intimate and more technical, that perception, memory and affect become a matter of technical modalities. With the cyborg, Haraway introduced a notion intended to render life's reliance on technology conceivable and theoretically graspable. Compared with the period of the *Cyborg Manifesto* in the mid-1980s, the ubiquity of technology has become many times greater: the net has, as Gallagher and

Thacker write, become something elementary – an invisible, all-encompassing precondition for societal, social and mental processes.

Neo-cybernetic approaches today revolve around a question already addressed by George Canguilhem in his essay Machine and Organism, where he advocates an understanding of technology as a universal biological phenomenon. In 1946-47, when Canguilhem was giving his lecture, he concluded by saying that for some years now, tests had been underway – at MIT under the name bionics – to research biological models and structures that could be used as models in technology. "Bionics is the extremely subtle art of information", writes Canguilhem, "that has taken a leaf from natural life" (1992: 45-69). Today, media are put on a level with insects, rays, instincts, stimuli and reflexes (cf. Parikka 2010), theories of imitation from the animal kingdom are transferred to the political and social crowd and swarm formations by humans. Not that comparisons between the animal and human worlds are anything particularly novel; what is new is the fact that today they are meant seriously, that the anthropological supremacy of the human is no longer capable of upholding itself in the current technical-organic overall structure.

When Canguilhem articulated his appeal immediately after World War II, warning against the reductionism of the rapidly expanding hegemony of cybernetics à la Norbert Wiener, it fell on deaf ears, not unlike Hertha Sturm's 'missing half-second'. Technology and biology, or technology as biology, was not a possible equation, for many reasons. Today, by contrast, one can observe a new liaison resulting from a linking of approaches in biology and information technology, a link established via time, life as time, and an original deferral. In this context, affect can be viewed as an interval that mediates between life and technology, or that facilitates life as technology.

These themes refer to the process philosophy of Alfred N. Whitehead, which has acquired a topical significance, especially for Brian Massumi and other media theorists, as a way of theoretically tackling sensations and perceptions without consciousness and subject. Whitehead defines physical perception as always emotional, calling it a "blind emotion" that is "received as felt elsewhere in another occasion" (Whitehead 1979: 163). This involves not an accumulation of data but always a data relationship. The perceiving subject does not pre-exist the perceived world, but emerges through and in the process of perception: "feeling is subjectively rooted in the immediacy of the present occasion, it is what the present situation feels for itself, as derived from the past and as merging into the future" (ibid.: 163).

The degree to which the philosophy of Whitehead and Deleuze influences current discussions of body, movement and affect is reflected in Erin Manning's book Relationscapes, Manning, who works with Brian Massumi at the Sense-Lab in Montréal and publishes a series entitled Technologies of Lived Abstractions<sup>2</sup>, equates seeing with feeling, with feeling understood as movement-with:

"Affect passes directly through the body, coupling with the nervous system, making the interval felt. This feltness is often experienced as a becoming-with. This becoming-with is transformative. It is a force out of which a microperceptual body begins to emerge. This microperceptual body is he body of relation. While affect can never be separated from a body, it never takes hold on an individual body. Affect passes through, leaving intensive traces on a collective body-becoming. This body-becoming is not necessarily a human body. It is a conglomeration of forces that express a movement-with through which a relational individuation begins to make itself felt." (Manning 2009: 95)

This passage describes the entire process from perception via affect through to the moving and moved body, also making clear that it is not about individual bodies, but bodies with other bodies, and that these must not necessarily be human bodies, or at least not exclusively.

Manning, with reference to Deleuze and Whitehead, celebrates a body in movement and perpetual mutation whose reactions are controlled via intervals (ibid.: 95). Here, too, the missing half-second makes an appearance. According to Whitehead, subjectivity takes place in this zone of lost time; life "lurks in the interstices of every living cell, and in the interstices of the brain" (Whitehead 1979: 105-106).

Bergson, too, described the brain as the place where the interval resides. In contrast to the scientific wisdom of his time, he declared the brain a tabula rasa, a "centre" or "zone" of "indetermination" (Bergson 1991: 23, 28; Schmidgen 2008b: 107-124, here 108). The brain is defined as a gap in time, as an "interval of varying length between stimulus and reaction" (Schmidgen 2008b: 109).

A similar moment can be identified in the cybernetic debate of the mid-20th century, where the concept of reflexes is inserted as a vitalistic element of time into the gap between signal and movement of the machine/automaton. Norbert Wiener borrows Bergson's concept of "duration" and applies it to both living humans and machines:

Cf. https://mitpress.mit.edu/books/series/technologies-lived-abstraction

"Thus the modern automaton exists in the same kind of Bergsonian time as the living organism, and hence there is no reason in Bergson's considerations why the essential mode of functioning of the living organism should not be the same as that of the automaton of this type." (Wiener 1948: 44)

In 1951, Max Bense elaborated on this, claiming the time interval as the basis of the commensurability of machine and man in general terms. Except that, unlike humans, computer machines are capable of using (and exploiting) even the smallest interval. The interval in the human organism, empty according to Hertha Sturm or too full according to Brian Massumi, is filled by cybernetic computing machines with a speed of task fulfilment that surpasses human comprehension: "Cybernetic machines exhaust the smallest interval. An addition takes place in five millionths of a second; in five minutes, it can perform ten million additions or subtractions of ten-figure numbers." (Bense 1951: 429-446, here 440)

However, Bense explicitly associates this mechanistic-sounding operational capacity with Bergson's "duration" and sets it apart from steady, Newtonian time. And finally, as Stefan Rieger explains in his cybernetic anthropology, Bense aligns Heidegger's fundamental ontology with Norbert Wiener's cybernetics (cf. Rieger 2003: 146).

## Perceiving in motion/moving perception

As well as taking a cue from Bergson's "duration", however, Norbert Wiener was also familiar with reflex theory, especially as formulated by Pavlov. In his cybernetics, he even went so far as to attribute "conditioned reflexes" (Schmidgen 2008a: XXXII) to computing machines. In his eyes, technological and biological machines were capable of "rudimentary learning" (ibid.). The fascination of these machines capable of learning and possessing conditioned reflexes extended far beyond the technical world and was also referred to by Jacques Lacan in his seminar on the ego in Freud's theory to show how far man and machine travelled a common path, diverging only at the last moment, at the point where the machine was supposed to add or subtract "itself as an element in a calculation" (Lacan 1988 [1978]: 52). Up to this point, however – in the grip of the mirror stage - the ego occupies the position of the lame man frequently seen in 15th-century visual art as a counterpart of the blind man.

"The subjective half of the pre-mirror experience", Lacan writes, "is the paralytic who cannot move about by himself except in an uncoordinated and clumsy way. What masters him is the image of the ego, which is blind, and which carries him. [...] And the paralytic, whose perspective this is, can only identify with his unity in a fascinated fashion, in the fundamental immobility whereby he finishes up corresponding to the gaze he is under, the blind gaze." (ibid.: 50)

What, then, is the relationship between this "blind gaze" and the "blind feeling" that is mentioned by Whitehead and that I have linked with affect? Very early on in his work on affect, Massumi found an example that illustrates this especially well, concerning Ronald Reagan and his experience as an actor. This experience made such a deep impression on Reagan that he chose the decisive phrase as the title for his autobiography. In the film Kings Row (Wood 1942), Reagan plays a tragic figure who wakes up after a car crash and stammers: "Where is the rest of me?" Returning from unconsciousness, he finds that both his legs are missing, amputated as revenge for the patient's love affair with the surgeon's daughter. So much for the plot. For his purposes, Massumi highlights another aspect, focussing not on the vengeful amputation but on the tipping point as the central moment when Reagan, the actor, stammers his line and this sentence suddenly – for a fraction of a second - becomes real. His legs are no longer there, half of his body is missing: "Where is the rest of me?" What Reagan describes here is the moment that cannot be grasped, but which, as Massumi explains, marks a space where the subject's inability to see itself in motion 'shows' itself: "He is in the space of duration of an ungraspable event" (Massumi 1996b: 18-40, here 29). Defining his approach as "the skin is faster than the word", Massumi began in the mid-1990s to elaborate a cultural theory of affect, introducing it as an intensity that belongs to a 'different order': "Intensity is embodied in purely autonomic reactions most directly manifested in the skin – at the surface of the body, at its interface with things" (Massumi 1996a: 218-239).

Coincidentally or not, the subject here is amputation of the legs, described by Reagan as a real sensation that can easily be linked to the example from Strange Days. While Reagan has the momentary experience of having lost his legs, the man in the film experiences himself for the duration of the film (via the Squid) as having legs and running along the beach. Whereas for Massumi, the Reagan example confirms affect's characteristic property of lacking graspable presence, in Strange Days this is inscribed onto the body as the experiential zone of the viewer, "at the surface of the body" – the moving images transfer a movement in action into an affective moment whose characteristic property is being not-yetmovement.

With its Squid technology, the film Strange Days anticipated a debate that was to begin at the end of the 20th century and focus on the status of the image in general. In The Language of New Media (2001) Lev Manovich put forward the theory that digital images always appear on the surface as framed pictures, while below the surface they have long since lost their frames and referential character. "[T]he image, in its traditional sense, no longer exists! And it is only by habit that we still refer to what we see on the real-time screen as 'images'" (ibid.: 100). A few years later, in his New Philosophy for New Media, Mark Hansen picked up this change in the nature of images, positing it as a fundamental shift with serious consequences for the viewer. Hansen's approach took the body of the viewer as the new (old) focus: "In a very material sense the body is the 'coprocessor' of digital information" (Lenoir 2004: XIII-XXVI). This central task is explained by Hansen in terms of Bergson's definition of the world as an image and the body within it as a special image. According to Bergson, the body's task within the flow of perception is to filter, select, contrast and thus reduce this flow. For as Bergson remarks, the body is not a "mathematical point in space", added to which its "virtual actions are complicated by and impregnated with actual actions", leading to his unambiguous conclusion: "no perception without affection" (Bergson 1991: 60).

So when the body of the man in the wheelchair slips into the image of a man running along the beach past a smiling, waving women - or when his body affectively frames this image – this matches Bergson's description. This implies something that Merleau-Ponty called the "untouchable" (Heller-Roazen 2009: 295): a felt moment that has lost what guarantees the unity of this feeling: an ego. Or in Pierre Janet's description from the late 19th century, quoting Alexandre Herzen on the heart and cerebral activity:

"It is psychic nothingness, the total absence of consciousness; then one begins to have a vague, unlimited, infinite feeling, a feeling of existence in general, without any delimitation of one's own individuality, without the slightest trace of any distinction between the I and the non-I." (Janet, quoted in Heller-Roazen 2009: 281)

This means that in affect, the interval is radically delayed, a gap opens up whose emptiness or over-fullness touches me where I am not. The digitally produced/induced interval performs itself.

## REFERENCES

- Angerer, Marie-Luise (1999): Body Options. Körper.Bilder.Medien.Spuren, Wien: Turia + Kant.
- Bense, Max (1951): "Kybernetik oder die Metatechnik einer Maschine." In: Ausgewählte Schriften, Bd. 2: Philosophie der Mathematik, Naturwissenschaft und Technik, Stuttgart/Weimar: Elisabeth Walther, pp. 429-446.
- Bergson, Henri (1991): Matter and Memory, New York: Zone Books.
- Cameron, James (Producer)/Bigelow, Kathryn (Director) (1995): Strange Days [Motion Picture], United States: Lightstorm Entertainment
- Canales, Jimena (2010): A Tenth of a Second. A History, Chicago: University of Chicago Press.
- Canguilhem, Georges (1992): "Machine and organism." In: Jonathan Crary/Sanford Kwinter (eds.), Incorporations, New York: Zone Books, pp. 45-69.
- Canguilhem, Georges (2008): Die Herausbildung des Reflexbegriffs im 17. und 18. Jahrhundert, München: Wilhelm Fink Verlag.
- Crary, Jonathan (1992): Techniques of the Observer. On Vision and Modernity in the 19th Century, Cambridge, MA: MIT Press.
- Deleuze, Gilles (1988[1970]): Spinoza, Berlin: Merve Verlag.
- Hansen, Mark B. N. (2004): New Philosophy For New Media, Cambridge, MA: MIT Press.
- Heller-Roazen, Daniel (2009): The Inner Touch. Archaeology of a Sensation, New York: Zone Books.
- Herbertz, Richard (1980 [1905]): Die Lehre vom Unbewussten im System von Leibniz, Hildesheim/New York: Georg Olms Verlag.
- Kelty, Christopher/Landecker, Hannah (2002): "Das Schauspiel der Zelle. Unsterblichkeit, Apostrophe, Apoptose." In: Marie-Luise Angerer et al. (eds.), Future Bodies. Zur Visualisierung von Körpern in Science und Fiction, Wien: Springer, pp. 21-47.
- Kristensen, Stefan/Merleau-Ponty, Maurice (2012): "I. Körperschema und leibliche Subjektivität." In: Emmanuel Alloa et al. (eds.), Leiblichkeit, Tübingen: Mohr Siebeck, pp. 23-36.
- Lacan, Jacques (1988 [1978]): The Seminar of Jacques Lacan: Book 2: The Ego in Freud's Theory and in the Technique of Psychoanalysis 1954-1955, Cambridge: Cambridge University Press.
- Lenoir, Tim (2004): "Foreword." In: Mark B. N. Hansen (ed.), New Philosophy For New Media, Cambridge: MIT Press, pp. XIII-XXVI.

- Manning, Erin (2009): Relationscapes, Movement, Art, Philosophy, Cambridge, MA: MIT Press.
- Manovich, Lev (2001): The Language of New Media, Cambridge, MA: MIT Press.
- Massumi, Brian (1996a): "The Autonomy of Affect." In: Paul Patton (ed.), Gilles Deleuze, A Critical Reader, New York: Blackwell, pp. 217-239.
- Massumi, Brian (1996b): "The Bleed: Where Body meets Image". In: John C. Welchmann (ed.), Rethinking Borders, Minneapolis: University of Minnesota Press, pp. 18-40.
- McLuhan, Marshall (1964): Understanding Media. The Extensions of Man, New York: McGraw-Hill.
- Ott, Michaela (2010): Affizierung. Zu einer ästhetisch-epistemischen Figur, München: edition text + kritik.
- Parikka, Jussi (2010): Insect Media. An Archaeology of Animals and Technology, Minneapolis: University of Minnesota Press.
- Proust, Marcel (1922-1931 [1913-1927]): In Search of Lost Time / Remembrance of Things Past, New York: Random House.
- Rieger, Stefan (2003): Kybernetische Anthropologie, Frankfurt am Main: Suhrkamp.
- Schmidgen, Henning (2008a): "Fehlformen des Wissens." In: Georges Canguilhem (ed.), Die Herausbildung des Reflexbegriffs im 17. und 18. Jahrhundert, München: Wilhelm Fink Verlag, pp. VII-LVIII.
- Schmidgen, Henning (2008b): "Leerstellen des Denkens. Die Entdeckung der physiologischen Zeit." In: Bernhard Dotzler/Henning Schmidgen (eds.), Parasiten und Sirenen. Zwischenräume als Orte der materiellen Wissensproduktion, Bielefeld: transcript, pp. 107-124.
- Schmidgen, Henning (2009): Die Helmholtz-Kurven. Auf der Spur der verlorenen Zeit, Berlin: Merve Verlag.
- Spinoza, Baruch (1883 [1677]): Ethics. Part 3. On the Origin and Nature of the Emotions, New York: Dover Publications.
- Sturm, Hertha (1984): "Wahrnehmung und Fernsehen: die fehlende Halbsekunde." In: Media Perspektiven 1, Stuttgart: Intendant des Hessischen Rundfunks, pp. 58-65.
- Sturm, Hertha (2000): Der gestreßte Zuschauer. Folgerungen für eine rezipientenorientierte Dramaturgie, Stuttgart: Klett-Cotta.
- Wallis, Hall B. (Producer)/Wood, Sam (Director) (1942): Kings Row [Motion Picture], United States: Warner Bros..
- Whitehead, Alfred North (1979): Process and Reality: An Essay in Cosmology, New York: Free Press.

Wiener, Norbert (1948): Kybernetik, Cybernetics: or Control and Communication in the Animal and the Machine, Cambridge, MA: MIT Press.