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Pratiche, linguaggi e saperi dell'estetico

Bodies and cultures. How we become ourselves

edited by

Chiara Cappelletto

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Some Introductory Remarks on Embodied Cultures and Scenarios for the Times to Come[1]

Chiara Cappelletto

On the soft fibres of the brain
is founded the unshakeable base of the soundest of Empires.
Joseph Michel Antoine Servan, *Discours sur l'Administration de la Justice Criminelle*, 1767

It is generally agreed today that the living human body should be conceived of as a transcendental, in whose light not only our cognitive activity, our intentionality, and our pathic states but also the status of the subject itself must be understood. The human sciences have largely adopted a materialist approach (Apter [2016]) and are increasingly inclined and able to pursue dialog with the life sciences. This convergence of research perspectives suggests a conclusion to the long and tempestuous phase of interdisciplinary discussion that has characterized the last thirty years of scholarship, during which the human sciences, the life sciences, and neuroscience challenged one another routinely before finally settling on a common area of inquiry under the umbrella of "embodiment."

The notion of embodiment is implicated in any stance that more or less openly opposes the mind-body dualism or that subsumes this dualism in the nature-culture polarity, thus turning an epistemological and ontological question into an anthropological one. It is, at the same time, a notion compatible with a wide variety of approaches. It admits the possibility of considering the body both as a substratum onto which thoughts and artifacts that complement it are graft-

[1] The essays collected here take up and expand on the topic discussed at the international conference *Bodies and Cultures: How We Become Ourselves*, co-hosted by me and Carmine Di Martino, which took place on May 17 and 18, 2017, at the University of Milan and the Milan Natural History Museum.

ed, allowing it to realize its full potential, and as a live constraint that can (or must) be mastered and from which one can be emancipated by virtue of intelligence and technology. The selection of the body as a condition of possibility *and* thinkability for the humanity of our life need not, however, entail any claims to its superiority. That is, we must not repeat the same move that modern philosophy made with the mind by *valorizing it*—epistemically, heuristically, cognitively…

The set of disciplines that take the processes of embodiment as a common denominator is prompting aesthetics—itself finally free of "gnoseological inferiority"—to rethink its own grounds and aims, and to extend its field of inquiry to the point of a fruitful dialog with philosophical anthropology, cognitivism, neuroscience, and media and cultural studies. The three «fundamental anthropological laws» set out by Helmuth Plessner (1928), the idea of «freedom from bodily limits» put forward by Paul Alsberg (1922), and the notion of «techno-aesthetics» drawn up by Gilbert Simondon (1982), along with the interpretation that John Dewey proposed of pragmatism (1925), are fully integrated into the current aesthetic debate, which also benefits from the viewpoints of more recent authors, such as Antonio Damasio (1994), Shaun Gallager (2005), Erika Fisher-Lichte (2008), Alva Noë (2009), Lambros Malafouris (2013), Tim Ingold (2013), and Vittorio Gallese (2020), among others. These multidisciplinary grafts are but symptoms of the widespread need for a fundamental renegotiation of what exactly constitutes the humanity of human beings, at a time when the «dark foreboding danger [scil. overshadowing] life,» which Ernst Jünger sensed almost a century ago (1934: 3), is consubstantial with the very idea of the Anthropocene. It seems to me that to meet this need we must accept the thesis—deemed «self-evident» by Pietro Montani in the pages that follow—whereby «the forms of life with which the genus *homo* experimented in the course of its evolution are primarily characterized by a set of practices related to its specific *technical creativity*.» It is therefore not possible to discuss the question of embodiment without considering the now widely-held position that human history is a «continuum of human-prostheses inter-relations» (Ihde-Malafouris [2019]: 196), although the locations of the cut-off points between such open-ended practices remain to be established (Barad [2003]).

The convictions that, as Carmine Di Martino writes, «technology is separable neither from the rough course of the hominization of the individuals (phylogeny) who make up the species *homo sapiens* nor from that of their humanization (ontogeny),» and the processes of embodiment remain incomprehensible if this inseparability is not taken into account, are not based on the results of theoretical and experimental research alone. In my view, the fact that the body is conceived of as the original cognitive and sensible agent insofar as it is rooted in a world scene that it manipulates, and no longer as an obstacle to the whole affirmation of our human nature, represents the final and fullest affirmation of biopolitics. This development stands to influence not only economic choices and institutional practices but also the very critical thought devoted to finding the best strategies of what I would call "body management," to the point of finding surrogates for our living organism when the body's performance is not fulfilling. Bruno Bonnell, the former director of Infogrames/Atari, predicts that the first soccer game between humans and robots will be played in 2050, with the victory going to the latter (Blouin [2011]: 34). Widespread AI is the next step on the road after that.

The current alliance between criticism and special interests from the industrial, pharmaceutical, military, and entertainment spheres, is so pronounced that the "body turn" currently at hand is in jeopardy of repeating those logics of domination that it actually means to deconstruct. It runs the risk of reducing the qualitative richness of plural bodies and (contradictory) individual sensible experiences to statistical data and predictive hypotheses tailored to "standard" neurobiological and anatomic mechanisms, so as to map out a paradoxically idealist notion of the body, whereby "a body *as such*" exists.

To unmask the ideology of such an idealism, it is useful to recall that the relationship between life and technology, and its impact on the evolution of human beings, has a history, which is not linear and incremental (Corbin, Courtine, Vigarello [2005]). Introducing this history into the debate, for instance, by reflecting on the co-dependence of matter, imagination, and machines, as Barbara Grespi does further ahead, makes it possible to resist the homologating effect of the rearview mirror while implying that no teleology is legitimate. Even more to the point, it presents the body as a theoretical object where epistemic outlooks and political plans participate in ongoing processes of becoming, rather than as the last resort for finding an answer to long-standing questions about identity, cognition, and the purposiveness of life. The current neo-animist shift itself prompts a reconceptualization of the idea of the human body-mind as coextensive with the physical, social, and cultural environment, revealing the significance of prosthetic and technological dilations attached to adaptable biological beings, and therefore of the impact of goods, products, and lifestyles introduced by empires old and new. If our inherent plasticity rescues us from a biologically deterministic fate, it also makes us a favored site for projection, manipulation, and product placement (Bahri [2017]: 6).

Any investigation of the body as a material apriori must thus be inscribed in the wake of Maurice Merleau-Ponty as much as in that of Frantz Fanon.

Gender studies and, above all, Judith Butler have long been committed to exposing the normative and conservative character of a notion of Body that neglects the phenomenology and power games entailed thereby. In looking back on her idea of the "construction" of identity, Butler has stated: «Basically, I am saying that a body emerges in the world in a state of dependence with respect to other bodies and institutions, and that as a consequence, the body is "outside of itself" and in the social in order to exist, in order to survive» (Butler [2011]: 86). Yet, the idea that the body is exposed to practices—including those of a juridical, medical, pedagogical, reproductive, athletic, culinary, ornamental, and ritual nature—that shape it, seems to me to come too late. Of course the body's situatedness is expressed in processes and metamorphoses influenced by dynamics of domination to which it contributes in turn and that enable it to meet the demands of an ever-greater identitary articulation—male versus female, young versus old, white versus non-white, cisgender versus transgender—better than a universal mind could do. But this plasticity does not guarantee that every individual is recognized as determined. Invoking the plasticity of an embodied mind does not suffice to exhaust the question of the processes of individuation. On the contrary, individuals can—once again—be placed in the service of the One: Jean-Francois Toussaint, in collaboration with the IRMES, has determined that "the" human body will reach its peak athletic power in 2060. It is then to compensate for the fact that the athletic body is ineluctably doomed to exhaust its own potential that more and more space is given to the Paralympics, whose contestants have a greater margin of improvement in their competitive results than able-bodied subjects (Blouin [2011]: 25 and 31).

The question is how human bodies trigger, partake in, and/or direct the reflexive processes carried out by subjects in environments that are always already inhabited by other living and artifactual bodies, and within what limits they can and should realize their own "technical creativity," knowing that this opens the door to new material possibilities but also to the destruction of the same. The question is thus in fact an eminently aesthetic one. If we insist on the reflexive and autopoietic capacity of the body, the variety of its forms and their evolution will no longer stand out as exploitations of the norm but as variations of a type whose "naturalness" is the result of an original collaboration between organisms and tools. Resisting the intellectual partisanship between apologetics and apocalyptics about the co-dependence of humans and technology, our present discussion therefore sets its sights on the legality governing the imbrication of bodies and prostheses.

Whereas in the human type that was being

developed at the beginning of the 20th century, and that has since come into its own, Jünger detected «the presence of a "second" consciousness» that «reveals itself in the ever-increasing ability to see oneself as an object. […] [For w]e are not only the first creatures to work with artificial limbs; through the use of artificial limbs we also find ourselves in the process of erecting unusual realms with a high degree of accord between man and machine» (Jünger [1934]: 14), in *The Work of Art in the Age of Mechanical Reproduction*, Walter Benjamin hints at a similar kind of «accord», which we would describe today in performative terms. Countering the idea that humans are passively subjected to artifacts and their codes, he draws a distinction between a «first» and a «second technology»: «The first technology [which, scil., «made the maximum possible use of human beings»] really sought to master nature, whereas the second [which, scil., «reduces their use to the minimum»] aims rather at an interplay between nature and humanity» (Benjamin [1935]: 107). The second technology—which we are currently experiencing—originates where «human beings first began to distance themselves from nature» (Benjamin [1935]: 107)—that is, from their biological givenness.

Understanding this distance is crucial to clarifying the reach of the notion of embodiment, which renders the distinction between an environment *outside* the anatomical boundaries of the human body and an environment *inside* these boundaries inadequate. Elsa Dorlin rightly observes, for example, that «masculine and feminine, taken as so-called "natural" identities, are products of Bayer, Sanofi-Aventis and Pfizer-Wyeth» (Dorlin [2011]: 18). This elision of borders means not only that—as Elisa Binda and Dario Cecchi, respectively, write in the present issue—«the [scil. human] body itself becomes an interface, a *medium*, that is performatively engaged in commerce with the things around it,» and that «the human body manifests [scil. the tendency] to be prolongated by technological proxies», but also that, in the words of Roberto Redaelli, «it is necessary to rethink the relationship between the apriori and material level, starting from the normativity inherent to the sphere of *aisthesis*», since the mediality of the body is not a biologically neutral given.

It seems to me that this rethinking must start from a discussion of the polarity of endo and exosomatization, of internalization and externalization, which makes Montani's and Ian Tattersall's focus on the emergence of language as an «externalized attribute,» whose corporeality is certainly not reducible to its thinghood, and whose meaningfulness is not reducible to its discursivity, all the more relevant. This polarity plays a part in the feedback movement produced by such attributes—a broad movement encompassing senses and feelings, which, as Cecchi stresses, «enhance the exchange with the surrounding world» through being, in Montani's terms, «technically attuned».

It would therefore be apt to investigate new possibilities for conceptualizing the human form at the precise moment in which it is taken as becoming—that is, as genetically artificial. This could enable us to understand the technological device, not as a tool that is in itself special by virtue of extranatural powers, but as a *pharmakon*, the quality of whose effects depends on the quantity and the modes of administration, and includes unforeseen secondary effects as well as achievements and failures that may or may not have occurred or occur in the future. I therefore subscribe to the incisive claim put forth by Tattersall in his valued contribution to the present issue: admitting the possibility that there were elements of chance in our becoming what we are, he contends that «we are optimized for nothing, and thereby not condemned to be anything». One thinks of the Speedo and Jaked 01 swimsuits, used since the 2008 Beijing Olympics, which make it easier to float so that swimmers can limit their exertion to thrust and speed by reducing the impact of muscle mass (Blouin [2001]: 29). «*Technology is our uniform*», writes Jünger (Jünger [1934]: 11). How exactly we wear it is the crux of the matter.

There are two possible roads here. Either we opt for the binary choice whereby technology functions as a mask that at degree zero assimilates

individual identities and at its maximum degree diversifies them through hyperspecialization; or, we interpret the significance of technology's intervention in life as an expression of the fact that the body is a medium—that is, a mode of organizing intentional and unintentional processes. In this second case, the human being is not a variable of technology but a technical agent, and imagination—not the effectiveness of the tool or the usefulness of the result—plays a privileged role in our embodied cultural formation. «Thanks to a long series of externalized experiences», the imagination is able to «gradually achieve […] a self-consciousness of its articulatory function» (Montani). This ongoing achievement is at the core of any inquiry about the living body.

Finally, the abandonment of the idea of biological givenness has three orders of consequences that deserve to be further investigated. The first is on the order of substance. Taking the body as transcendental does not imply thinking of the human being as the inevitable result of the activation of neuro-anatomical mechanisms conditioned by the environment. On the contrary, the very fact of culturally qualifying our innate readiness to action when we encounter inorganic matter allows us to reflect on the original self-alienation of the human animal, on its eccentricity, and on its freedom. In order to understand the reach of a self-experience that is genetically vicarious, indebted to the technical devices whereby human beings are co-constituted, it is necessary to refine the investigation of embodied cultural practices and to assume a heterological point of view. This is the same point of view that runs through the pages of *A Cyborg Manifesto* by Donna J. Haraway (1985), of the less well-known *Postcolonial Biology* by Deepika Bahri (2017), and of certain recent studies on pregnancy—deserving of attention from contemporary academic aesthetics—that focus on the natural situated condition during which the pregnant subject has a salient and developing experience of her own duality (Young [1984], Depraz [2003]).

The other two sets of problems are methodological in nature. In order to think the body heterologically, it is useful to reason by way of simulation, outlining "scenarios"—as Tattersall does here. The idea of the scenario updates that of the traditional "thought experiment" by better adapting it to research in which scholars are required to form hypotheses about recurring behavioral patterns in a variety of contexts and cultural habits but that does not dispense with empirical evidence and historical sources. This methodological choice is exemplified in the work of Richard D. Alexander, who makes use of the notion of «surrogate scenario-building» in his research on human behavioral evolution (1989), and Vilayanur Ramachandran, who considers art to be «nature's own virtual reality» in his neuroaesthetic studies ([2011]: 243).

In order to operationalize the notion of scenario, we need to bring up that of performance, as used first by Simondon, and later by Malafouris (unfortunately without citing the former). In *L'Individuation à la lumière des notions de forme et d'information*, the French philosopher begins his reflection on individuation with the example of the production of a clay brick, which entails more than the mere application of a rectangular shape to passive matter (2005). This discrete and specific artifact comes into being through the intentional manipulation of a given material, which expresses its own possibilities thanks to the involvement of a particular human being, whose contingent action is in turn shaped by *that* clay. In *Creative thinging* Malafouris calls attention to «the feeling of and for clay,» referring specifically to the «dynamical process of creative material engagement, wherein material and human agency are coupled to each other and allow action to gain a "life of its own"» (2014: 151). As not all actions are performative, such a coupling of natural element and human intervention must be held mandatory in order to understand life as a historical performing process in itself.

The arguments that I am proposing here find support in the essays by Grespi and Christoph Wulf, the second of which has the merit of linking culture to sociality, allowing us to understand the former not as a mere knowing (how to make) but as a situated and relational know-how. Perfor-

mances—which intervene in external objects and in the living body itself—are in no way a reproductive but rather a productive activity that proposes "altered" versions of the initially available model: independent variations on the theme. Thus, as Wulf claims, «while maintaining continuity», performances «also offer scope for discontinuity» such that «alterity is conveyed through performativity.» "Conveying" is produced by a broader set of technical-corporeal gestures. These types of gestures govern the ways in which each body acts in its own environment. This is why «the gesture,» as Grespi writes, «is no longer [to be conceived of as] an involuntary, corporeal manifestation of emotional states, but rather an interface between a subject and the world, a creative form of thought that rejects both rationality and the dimension of the drive.» The historicity of man is ultimately expressed through a series of practices that interact, challenging the very idea of human "evolution".

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This issue of Aisthesis is enriched by a focus on Florens Christian Rang, William Shakespeare, and Walter Benjamin. Marina Montanelli presents here for the first time an Italian translation of Rang's *Vom Weg messianischer Deutung* (*On the Way of Messianic Interpretation*), the introductory essay to his work on Shakespeare's sonnets. The translation is accompanied by Montanelli's comment paper on Rang's text, *Florens der Christ. Un commento a* La via dell'interpretazione messianica *di Florens Christian Rang*. This paper aims both at contextualizing the figure of Rang and his work on Shakespeare and at addressing the most important conceptual issues of messianic interpretation, work of art, and faith work that Rang's essay presents. Fabrizio Desideri's paper, *Hamlet or Europe and the end of modern Trauerspiel. On some Shakespearean motifs in Walter Benjamin*, deals with the possibility of interpreting Hamlet's time as the time of an "interim" in light of the claims Benjamin makes about Shakespeare's drama in his book on the German Trauerspiel. Taking into account the interpretations of Pavel Florensky, Lev S. Vygotsky and Carl Schmitt, Desideri shows how Benjamin's characterization of Hamlet reveals something about the nature of modern consciousness and the aporetic character of modern politics. Lastly, Alice Barale's «Unbewaffnetes Auge»: Benjamin's interpretation of comedy in Shakespeare and Molière examines two early works by Walter Benjamin on Shakespeare's comedy *As you like it* and on Molière's *Le malade imaginaire*. The paper deals with the role of the comic within Benjamin's philosophy, including in its relationship to mourning and what Benjamin writes about it in *The Origin of German Tragic Drama*.

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Evolution and Human Cognition

Ian Tattersall

Abstract. There can be no reasonable doubt that our living species Homo sapiens is fully integrated into the great Tree of Life that unites all living organisms on this planet. But it is also obvious that we are not just another run-of-the mill primate. But what distinguishes us most strongly from those relatives – and all other organisms – is something more abstract: the unusual and unprecedented way in which we process information in our minds. That is not so in our case, and a useful shorthand descriptor of the difference between us and them is that we think symbolically. In other words, we mentally deconstruct our exterior and interior worlds into a vocabulary of discrete symbols and then rearrange them, according to rules, to describe those worlds not only as they are, but as they might be.

Keywords. Evolution; Human Cognition; Symbol.

There can be no reasonable doubt that our living species *Homo sapiens* is fully integrated into the great Tree of Life that unites all living organisms on this planet. But it is also obvious that we are not just another run-of-the-mill primate. There is, after all, a long list of physical features differentiating us even from our closest living relatives, the African apes, most of them relating in one way or another to our unusual bipedal form of locomotion. But what distinguishes us most strongly from those relatives – and all other organisms – is something more abstract: the unusual and unprecedented way in which we process information in our minds. The great apes are highly intelligent beings, who nonetheless react more or less directly to their environments, albeit sometimes in remarkably sophisticated ways (Cohen [2010]). They live essentially in the world as Nature presents itself to them. Not clear that is not so in our case, and a useful shorthand descriptor of the difference between us and them is that we think *symbolically*. In other words, we mentally deconstruct our exterior and interior worlds into a vocabulary of discrete symbols and then rearrange them, according to rules, to describe those worlds not only as they are, but as they *might* be. And as a result of this, we actually live for much of the time less in the "real" world than in the worlds we individually reconstruct within our heads.

This is not, of course, to suggest that the cognitive processes of primates and other vertebrates cannot be very complex indeed. For example, apes can readily recognize and respond to symbols, both visual and verbal. And they can even use them additively, to make and understand simple statements, such «take … red … ball … outside». But this basic additive treatment of symbols is hugely limiting; and what apes evidently do not is to engender multiple alternatives by rearranging such symbols in the human fashion. And as a result, there is a narrow but hugely significant gulf between the cognitive styles of human beings and all other organisms.

Nonetheless, given our deeply embedded position within the Tree of Life, there can be no rational doubt that our symbolic and linguistic species *Homo sapiens* was descended from an ancestor that was neither of these things. Which means that, at some point in our evolution, the symbolic and linguistic gulf *must* have been bridged. This is an almost unimaginable event; and it is hardly surprising that, while many have pondered upon how this bridging was achieved, resulting conclusions have diverged greatly. Some scientists have concluded that such attributes as language and symbolic cognition are so complex and deeply ingrained in our species that their roots must extend far back in time (Pinker, Bloom [1990]). Others alternatively believe that they are "either/or" traits that probably originated in short-term events (e.g. Berwick and Chomsky [2016]). The implications of these two scenarios are not only starkly different, but they are hugely consequential for our ideas of who we are as a species. The gradualist viewpoint implies that our behavioral features have been slowly honed by natural selection over the eons and are thus deeply encoded within us, making us to a significant extent the behavioral prisoners of our biological heritage. In sharp contrast, the sudden-origin notion eliminates natural selection as a driving force in the origin of the unique modern human form of consciousness, thereby admitting the possibility that there were elements of chance in our becoming what we are. If this view is correct, it is more probable that our behaviors are not closely channeled by our genetic heritage, and that we possess a significant latitude in our behavioral repertoire.

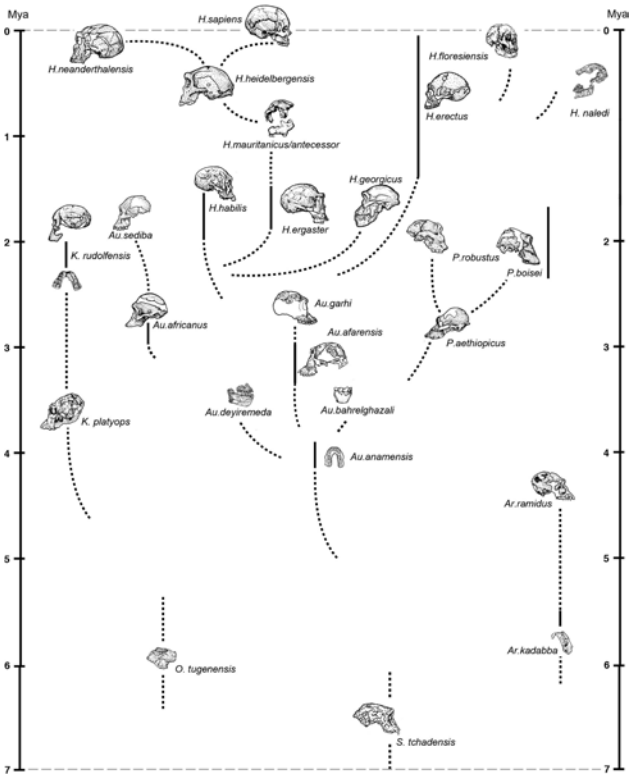

Figure 1. Outline schema of hominid evolution, showing that several hominid species typically coexisted at any one point in time; it is *Homo sapiens* that is highly unusual in being the only hominid on the planet. Drawn by Kayla Younkin.

In choosing between these options, only empirical evidence will help. And, since cognition itself obviously does not preserve directly and such factors as the brain sizes and external morphologies of our extinct fossil relatives have proven rather disappointing in this respect (Tattersall [2012]), we have only two places to look for such evidence. One of these is the overall pattern of human evolution, which is reflected in the family tree given in Figure 1. This might be expected to show a basically linear form if our evolution had been dominated by steady within-lineage natural selection, whereas more adventitious influences would be expected to produce a bushier profile. And as the figure shows, this highly speciose tree shows a vigorously branching pattern in which

numerous hominid species were evidently spun off to do battle in the ecological arena, with both their relatives and more distantly related competitors, and to succeed or more likely fail. The pattern is one of diversity. It shows active experimentation with the hominid potential, rather than the smooth and gradual change that might be expected from improvement via within-lineage selection.

The second source of information on evolutionary process is the archaeological record, the direct if sometimes rather murky material register of ancient hominid behaviors. For the Pleistocene epoch, roughly the two million years over which our genus *Homo* evolved, this record is pretty limited, consisting for the most part of stone tools and butchered animal bones, and of the ways in which those elements are spatially disposed at occupation sites. And although technological indicators of this kind may in the aggregate be indicative of general complexities of lifestyle, it is hard to argue that any of them is a good proxy for any specifiable cognitive condition – which is one major reason for the disputes already alluded to. Still, while many Paleolithic stone-working techniques are certainly witness to very sophisticated cognitive states, it seems pretty evident that few of them, if any, can be used in isolation to infer the specifically modern human symbolic cognitive style: something that may be particularly relevant in light of the fact that learning by imitation can extend to some extremely complex processes indeed. And this, for the most part, leaves us only with explicitly symbolic artifacts as reliable proxies for the specifically modern symbolic cognitive style.

But then again, opinions may legitimately differ as to what might or might not be considered a symbolic artifact. Can we consider as symbolic a roughly-altered lump of stone that looks vaguely anthropomorphic to a modern observer? Were colored gastropod shells, presumptively pierced for stringing, necessarily part of a symbolic ornamentation system? Does the simple presence of ground ochre in archaeological deposits necessarily imply that this functionally-useful pigment was also used for symbolic bodily decoration? There will always be difficult cases like these, but fortunately certain early expressions were more overtly symbolic. Such expressions include the realistic animal representations that began to be produced around 40 thousand years ago, by artists who were clearly our cognitive peers. Perhaps even more importantly, symbolic thought allows hominids with clever hands not only to remake the world in their minds, but to shape the world around them to conform to what they have imagined. Symbolic *Homo sapiens* has transformed the landscape in a remarkably short lapse of time, and if any other hominid lineages had possessed this ability, we should surely expect to find it expressed in some visible inflection in the archaeological record.

Given all this, it seems worthwhile to look briefly back over the long record of the hominid family, to see at what point in human evolution we are able to reasonably infer the possession of modern symbolic behaviors. To begin at the beginning, long before we have any archaeological record to hand, the earliest probable hominids consist of a handful of generally poorly-known and rather ill-assorted African forms, between about 7 and 4 million years (myr) old, all of which owe their hominid status largely to claims that they were upright bipeds when they moved on the ground. Much better documented are the so-called "australopiths" of between about 4 and 1.5 myr ago. These relatively diminutive and short-legged human precursors were clearly bipedal on the ground, but they also retained numerous features of the skeleton indicating that they were agile in the trees. Their brains were slightly larger than those of the living apes and the earliest hominids, but they were still small, and they had large chewing teeth housed in protruding faces. Not for nothing have the australopiths sometimes been called "bipedal apes". Still, from the very beginning they seem to have shown different ecological preferences from today's apes, exploiting a much wider range of resources in the expanding Plio-Pleistocene African woodlands and bushlands.

By around 3.4 myr ago there are already hints that early hominids had begun to use sharp stone flakes to butcher mammal carcasses; but deliber-

ately-made stone tools actually begin to show up rather later, at sites in Kenya and Ethiopia dating from about 2.6 myr ago. And it is with these simple implements, small cutting flakes bashed from one small cobble using another, that we have the first definitive evidence that hominids had moved cognitively well beyond the ape league. Still, despite this radically new behavior, the earliest stone tool makers seem anatomically to have been standard-issue australopiths. And this gives us the first indication of another significant pattern we find repeated throughout the hominid record. Namely, that new kinds of technology tend not to be introduced by new kinds of hominid: as far as innovation is concerned, the archaeological and fossil records are clearly out of phase.

This certainly held true for the earliest well-characterized members of our genus *Homo*, whose fossils begin to be found in Africa at sites a little under 2 myr old. For, as physically advanced as they may have been, these hominids of the species *Homo ergaster* appeared in association with simple flake tools identical to the ones their predecessors had already been making for half a million years. Still, in other ways, they were indeed radically new creatures: tall, slender, long-legged, and with significantly expanded brains. Physically, they were adapted for life in the expanding bushlands of the time, far from the protection of the forest. And for energetic reasons it is reasonable to conclude that they had already assumed an at least partly predatory way of life.

Once more, it took a while before the new hominids started regularly to manufacture a new kind of implement: the large and bifacially-flaked "handaxe" that was made to a predetermined form and that became common at about 1.5 myr ago. What is more, although several kinds of *Homo* apparently came and went in the intervening period, it was not until over a million years after the introduction of the handaxe that a conceptually new kind of stone tool began to be regularly used. This was the so-called "prepared-core" tool in which a stone nucleus was elaborately worked on both sides until a final blow, or blows, would detach a more or less finished implement. And, once again, these conceptually more complex tools appeared well *within* the tenure of an existing species, in this case the world's first cosmopolitan hominid, *Homo heidelbergensis*. This hominid appeared in both Africa and Europe at about 600 thousand years (kyr) ago, and it boasted a brain only slightly smaller than that of today's *Homo sapiens*. Within its time span several other radical technological innovations were also introduced, among them the hafting of stone tools, the construction of artificial shelters, the regular domestication of fire, and the first finely-shaped wooden throwing spears. But significantly, virtually nothing produced during its tenure is uncontestably symbolic. The clear message of *Homo heidelbergensis* is that a hominid can be resourceful, smart, behaviorally flexible, and technologically sophisticated in the absence of symbolic reasoning, or at least of any deeply embedded inclination to express this cognitive style (Tattersall [2012]).

We can also say more or less the same thing for *Homo neanderthalensis*, which evolved from indigenous European predecessors at about 200 kyr ago. The Neanderthals had brains as big as ours, they were wonderful craftsmen in stone, and they left us an incomparable record of very complex lives. They flourished in an age of difficult climates; they hunted some fearsomely large animals; and, at least occasionally, they buried their dead. There is even genomic evidence of occasional interbreeding with *Homo sapiens* (Green et al. [2010]), although there is actually nothing surprising about interbreeding among very close relatives. But despite some equivocal and disputed expressions mostly in very late times, the Neanderthals bequeathed us very little convincing evidence of any consistent tradition of symbolic activity. And in a record as geographically, temporally, and materially as expansive as theirs is, if the Neanderthals *had* been symbolic thinkers, they would surely have left us more convincing indications of this fact. Of course, to say this is not to disparage the Neanderthals in any way. Clearly, these were complex and sophisticated beings, clever exploiters of their environments. Nonetheless, it is hard to avoid the impression that they interacted with the world around them very differently from

the way in which *Homo sapiens* typically does.

Perhaps even more amazingly, the same identical thing also appears to have held for the earliest fossil representatives of our very anatomically distinctive species *Homo sapiens.* Fossils showing substantially modern morphologies have been found at Ethiopian sites dating between about 200 and 160 kyr ago. And those early anatomically modern humans are associated with some notably archaic toolkits. Now obviously, members of our species eventually began to reason symbolically, or we wouldn't be discussing the issue today. But it is not until around 100 kyr ago that we start finding the first plausible indications of this unprecedented cognitive style. And again, those indications first show up in Africa and nearby. At about this time, pierced marine shell beads and ochre deposits start to show up at sites around the Mediterranean and in South Africa (Bouzouggar et al. [2017], d'Errico et al. [2009], Henshilwood et al. [2011]). Such objects may on their own be arguable as indicators of modern cognition. But they are soon supplemented by more direct evidence, the best of which comes from Middle Stone Age (100-70 kyr-old) occupation strata at Blombos Cave, on the southern African coast. This evidence consists of smoothed ochre plaques engraved with geometric designs, the best of which dates from some 77 kyr ago (Henshilwood et al. [2002]).

Hominid fossils are sparse at MSA sites, but the evidence overwhelmingly suggests that these early expressions of behavioral modernity in South Africa were the work of members of our own anatomically distinctive species *Homo sapiens.* And, as a result of this evidence, a fairly firm scenario of modern human origins and geographical dispersion is emerging. What seems to have happened is that *Homo sapiens* appeared as a distinctive anatomical entity in Africa at about 200 kyr ago. At first, members of the new species behaved much as had their predecessors and hominid contemporaries. But at around 100 kyr ago they began to show new and unprecedented behavioral tendencies that included the production of symbolic objects. And very soon after that, populations descended from those first symbolic humans exited Africa and rapidly took over the world. Earlier, non-symbolic *Homo sapiens* had forayed into the Levant without displacing the resident Neanderthals, or even gaining a lasting foothold. But these later symbolic emigrants from Africa clearly had a cognitive edge that allowed them rapidly to displace the hominid competition throughout Eurasia. From *Homo erectus* in the Far East, to *Homo neanderthalensis* in the far west, all hominid competitors promptly disappeared.

In the best-documented case of early behaviorally modern penetration of remote Eurasian regions, the dazzling tradition of European cave decoration had already begun by around 40 kyr ago, accompanied by an amazing record of musical instruments, notations, portable art, and evidence of unprecedentedly sophisticated economic strategies. What's more, animal images have now been dated to around 40 kyr ago in Sulawesi and Borneo, suggesting that the tradition of representational art in Europe and Asia had originated earlier yet. The most plausible place of origin is Africa, and the timing would have been soon after the emergence there of symbolic cognition.

Of course, human beings are complex creatures descended from complex precursors. And occasionally we do find unusual expressions in the record those precursors left. For example, half a million years ago someone incised a zig-zag pattern on a mollusk shell found in Java, in putative association with *Homo erectus* (Joordens et al. [2014]). At the other end of the timescale, a deep hash engraving was found in a site were very late Neanderthals had lived (Rodriguez-Vidal et al. [2014]). But one swallow (or even two) doesn't make a summer; and, while intriguing, these items and a small handful of others are floating points that were not embedded in any identifiable symbolic tradition. Whereas, in dramatic contrast, the entire tenor of human life was clearly and dramatically changing among *Homo sapiens* in the later African Middle Stone Age, adding up to a fundamental behavioral transformation that sparked a revolution in the way in which hominids did business in the world. Previously, hominids had met

environmental challenges by adapting old technologies to new purposes, rather than by inventing new ones. Hence the typical stasis in stone tool kits. But with the emergence of behaviorally modern *Homo sapiens* a totally unprecedented entity was on the scene: one that clearly possessed the very same restless appetite for change that increasingly dominates our own lives today.

So, how do we explain the rapid emergence of this extraordinary and basically unprecedented new neophile phenomenon? Virtually overnight in evolutionary terms, human beings were behaving in an entirely unprecedented new way; and it was clearly not long-term natural selection that precipitated a sudden event that, moreover, clearly took place *within* an existing species. Further, the acquisition concerned was a behavioral one; and that such a behavioral event could have taken place at all can only be explained by the recruitment of neural systems that already happened to be in place. So how and when might those systems have been exaptively acquired? The only obvious possibility is the radical developmental reorganization that resulted, some 200 kyr ago, in the highly derived skeletal anatomy of the new species *Homo sapiens*. The genetic alteration involved in this event was almost certainly a rather minor one at the molecular level (likely involving changes in gene expression rather than in the protein-coding genome itself), but it evidently had cascading developmental consequences throughout the body; and there is no reason to believe that those consequences should necessarily have been confined to the skeletal and dental systems which are all that the fossil record preserves.

Still, the lag in the archaeological record indicates that the new cognitive potential lay fallow for a short but significant time. During this time, anatomical *Homo sapiens* continued to behave in the old manner, producing an unremarkable archaeological record. But then something happened to stimulate the recruitment of the new behavioral potential inherent in an adventitiously rewired brain, much as ancestral birds rather tardily discovered that they could use their feathers to fly. So what might the necessarily purely cultural stimulus for this change have been? By far the most plausible candidate we have is the spontaneous invention of language, which several factors combine to make particularly attractive in this role. First, language is the ultimate symbolic activity. Indeed, from our modern perspective it is virtually impossible to imagine thought in isolation from language. The linguist Wolfram Hinzen has, for example, recently recalled that the «close connection between grammar and thought» was a consistent theme in early studies of generative grammar, and he has provided persuasive arguments for reviving the view not only that language and thought are «not two independent domains of inquiry», but that thought itself is inherently grammatical. In other words, among modern people language and thought are so closely intertwined that they appear functionally, if not conceptually, inseparable.

In terms of interpreting the material archaeological record one can of course object that, while all human beings are symbolic, they do not all necessarily leave traces of this proclivity in objects that might be preserved. But over the long haul, and over the entire expanse of its distribution, we would surely expect any species that processed information in the modern human manner to have left some consistent material indication of its unusual cognitive status, just as we ourselves have so dramatically done in recent millennia. And we simply do not find anything equivalent in the case of any extinct hominid species, even the big-brained and well-documented Neanderthals.

Significantly, there is no reason to question the notion that the invention of language by a biologically predisposed hominid might have been a more or less instantaneous event. On a theoretical level, for example, Noam Chomsky and his colleagues have recently argued that the algorithmic basis of language is extremely simple (Berwick, Chomsky [2016]), so that an "either/or" switch is highly likely, much as in the case of the structured sign language observed to emerge virtually instantly among a community of deaf but "language-ready" children in Nicaragua (Senghas et al. [2005]). This property of suddenness not only

makes language a particularly credible driver of symbolic reasoning, but also distinguishes it from such rival stimulants of symbolic thought as theory of mind, which all demand long-term directional selection. Just as importantly, language is not only a portal to thought but is an externalized attribute that would have been poised to spread rapidly within a population that was already biologically-enabled for it.

In the scenario envisaged here, language and symbolic thought are inextricably intertwined. And the two were more or less simultaneously acquired by *Homo sapiens* in a single, short-term feedback event – an event that was both recent and emergent.

And it was *ex*aptive, rather than *ad*aptive. It was a randomly occurring event, rather than one driven by eons of natural selection. Exaptation is the routine evolutionary process whereby novelties arise in contexts entirely other than the ones in which they will eventually be co-opted. And neatly, this very same evolutionary mechanism also explains how the highly derived modern vocal tract needed to produce articulate speech was in place at precisely the point when it was needed for the expression of language – having originated as no more than an incidental byproduct of the retraction of the face beneath the braincase that is the most fundamental cranial specialization of *Homo sapiens*. Interestingly, this renders the long-running argument over the condition of the larynx and various other structures of the upper vocal tract in fossil hominids irrelevant to the precise point in human history at which language was acquired. The vocal tract simply happened to be there first, as of course it had to be.

The notion that the human brain recently underwent a recent and sudden algorithmic shift, a radical change in the way in which it worked, is supported by the rather counter-intuitive fact that, after two million years of steady expansion, our brains have apparently shrunk significantly since the end of the last Ice Age, some 10 kyr ago.

Both the Neanderthals and the early modern European *Homo sapiens* who replaced them some 40 to 30 kyr ago seem to have had brains of approximately equal volume, making both almost 13 percent bigger than the brains of people today. And, especially because brain is metabolically a very costly tissue, this fact strongly suggests that the ancestral intuitive brain operated on a "brute-force" algorithm, in which "intelligence" scaled more or less directly with brain volume (Tattersall [2017]). In contrast, the new symbolic algorithm proved to be a much more metabolically frugal one, demanding less energy input to produce an emergently different cognitive product: a product that made its possessors significantly more effective in the competition for ecological space than any hominid that had previously existed. And hence our lonely status as the only hominid in the world today.

All this having been said, we unquestionably share vastly more similarities with our closest ape relatives than we show differences from them. And, for all its peculiarities, our cognitive style is clearly built upon a long and complex series of acquisitions over almost half a billion years of vertebrate brain evolution. Yet our unique mode of information processing was clearly acquired amazingly recently, in an abrupt and emergent event that was entirely random with respect to adaptation. And that, in turn, strongly suggests that we human beings as we are today have not been programmed by eons of evolution to behave in specific ways, as some scientists like to suggest. The algorithmic change shifted all the rules by which humans play the evolutionary and cognitive games, allowing us to stand back and rationally appraise the situations in which we find ourselves. Knowing that the rules themselves have changed is incredibly important, because it helps us to understand a lot about our condition, why it differs from those of other organisms, and why it is so difficult to pin down. For we are optimized for nothing, and thereby not condemned to be anything. The fact that we can envisage alternatives makes all those alternatives at least conceptually available to us, and it gives us an astonishing latitude in the behaviors we exhibit. Our genotypes may incline us to respond in particular ways to the situations we find ourselves in, but we nonetheless have free

will to the extent to which we are consciously able to modify those responses. And that also endows us with a peculiar kind of responsibility: one that, sadly, it is all too easy to ignore.

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Dance as Experience Field of the Body: A Contribution to Aesthetics

Christoph Wulf

Abstract. I will focus on dances as performances that bring a knowledge of man and his body to the representation, which would not be visible and comprehensible without it. Dances will be conceived of as patterns in which collectively shared knowledge and collectively shared body practices are staged and performed, and in which a self-expression and self-interpretation of a common order takes place. These are productive, and not reproductive, activities that create communities and cultural identities—namely, by working through difference and alterity.

Keywords. Dance; Experience; Body; Aesthetics.

Dances are one of the most important forms of expression of people and their bodies. In them, cultural identity is expressed, and the self and world relationship of the people represented. They are multifarious. Depending on culture and historical time their forms vary (Wulf, Kamper [2002]). They reflect social and cultural structures. Dances are productive; they create their own field of cultural practice in which many characteristics condense (Junk [1930], Sorell [1983], Baxmann [1991], Brandstetter [1995], McFee [1999]). They bring a knowledge of man and his body to the representation, which would not be visible and comprehensible without them. They show different images, perspectives and interpretations of human physicality. Dances embody a knowledge of man, bring it to the representation and make it experienceable in mimetic processes. At its center are the human body and its movements. These are subject to the dynamics of space and time in which the movements of the body unfold. From the dance movements, which take place in space and time, arise rhythmic dance configurations in which the dynamics of a collective and an individual imaginary are expressed (Wulf [2014]). Bodies in dance are media of human self-expression and self-understanding. They make aesthetic experiences possible.

Dances have synaesthetic effects produced by several senses. Especially important are the movement, hearing, tactile and visual

senses; but also, the senses of smell and taste have meaning for the effects of the dance. Like rituals and games, dances are central to the formation of communities. Synaesthesia and the performativity of dance create an emotional and social similarity between people who dance together. Dances have a synaesthetic and a performative surplus, out of which their social dynamics and meaning develop. Dances are physical, performative, expressive, symbolic, regular, non-instrumental; they are repetitive, homogeneous, ludic and public; they are patterns in which collectively shared knowledge and collectively shared body practices are staged and performed, and in which a self-expression and self-interpretation of a common order takes place. Dances have a beginning and an end and thus a temporal communication and interaction structure. They take place in cultural spaces that shape them. They have a prominent character; they are ostentatious, their meaning is determined by their respective framing.

Dances are varied.

> *In the wide spectrum of dances, stage dance is just one of the many forms of dance movement. Dances are also created in connection with rituals, festivals, religious ceremonies and pop culture events. Their forms of expression are extremely diverse and cannot be subsumed under a few universal principles. Dances stage body images and movement codes. They create and document body myths; they are expressions of aesthetic representations and inventions. (Brandstetter, Wulf [2007]: 10)*

They bring body knowledge to the presentation, which is a silent knowledge whose "blurring" is characteristic for body knowledge (Kraus, Budde, Hietzge, Wulf [2017]). Dances can be analyzed under many aspects. In the context of UNESCO, they are understood as part of the Intangible Cultural Heritage. They are an important element of the cultural heritage, encompassing practices from many cultures that are not handed down in the form of documents and monuments whose importance to the culture and beyond is undisputed. Among the Intangible Cultural Heritage practices, dances, rituals, oral traditions and expressions, as well as the practices of dealing with nature and traditional craft knowledge, play a particularly important role. If one tries to determine the peculiarity of these, above all, practical traditions, the following anthropological dimensions are especially suitable for the development of cultural heritage:

- body and performativity;
- mimesis and mimetic learning;
- otherness and alterity;
- anthropological structural features;
- interculturality and anthropological research.

BODY AND PERFORMATIVITY

When the human body is the medium of dance, it results in consequences for the perception and understanding of dances. They result from the temporality of the human body and are determined by the dynamics of space and time. The practices of dance are not fixed but are subject to important transformation processes that are bound to social change and exchange. Since dances are performed with the body, it is important to pay special attention to the physical side of their staging and performance. The question of which historical and cultural body images and body practices are expressed in dances is of importance. For dances to be successfully staged and performed, individual body knowledge and knowledge of how dancers relate to the other dancers is required. The moments of a dance that create a community are closely linked to its physicality and materiality. In its staging and performance, the corporeality and materiality of the individual bodies create a collective (dance) body that is multifaceted and emanate aesthetic effects on the audience. Two aspects are particularly important for the performativity of dance. One is that dances are cultural performances in which societies represent and express themselves and help them to create communities. The second aspect of performativity characterizes the aesthetic side of the body-based performance of dances, without whose experience dances cannot be adequately understood

(Wulf, Göhlich, Zirfas [2001], Fischer-Lichte, Wulf [2001, 2004], Wulf, Zirfas [2007], Wulf [2004a, 2004b]). Because of their performative character, dances create communities and create cultural identity; they also work on difference and alterity. They are important cultural heritage practices that convey traditional values and help to adapt them to people's current needs. When dances no longer express people's attitude towards life, they are changed, or new dances from other cultures are "imported", which then better express people's current attitude to life. This leads to new cultural products in which different cultural traditions mix; hybrid dances are created with new forms of expression and physical representation.

MIMESIS AND MIMETIC LEARNING

The practices of dancing are learned in mimetic processes in which the body knowledge required for dance is acquired. This is done by the perceptive and above all by the practical participation in dances. Through the mimetic reference to dancing role models, the body knowledge required for the performance of dancing is acquired. Such processes of imitation are not aimed at copying the role models; the aim is rather a process of creative imitation that leaves room for the individual design of the dance. The process of approximation differs from one person to another and depends on many individual factors. When a dance is related to a previous one, there is a desire to do something like the other dancers. This desire is based on the desire to become like the others, but at the same time to be different from them. Despite the desire to become similar, there is a desire for differentiation and autonomy (Gebauer, Wulf [1992, 1998, 2003], Wulf [2005, 2013]). At the same time, the dynamics of dances push for repetition and difference, thus generating energies that drive the staging and performance of dances.

Repetition is about taking a "copy" of earlier dances and referring to new situations. The repetition of the dance never leads to the exact reproduction of the earlier dance, but always to the production of a new staging and performance in which the difference to the former is a constructive element. In this dynamic lies the reason for the productivity of mimetic actions. While maintaining continuity, they also offer scope for discontinuity. Performances of dances make it possible to negotiate the relationship between continuity and discontinuity. The respective conditions of individuals and groups play an important role in the different manipulations of implicit patterns and schemes. For the transmission of a practical knowledge of dance, the sensuality of the mimetic processes, which is bound to the human body, relates to human behavior and is often unconscious. Through mimetic processes, people incorporate images and patterns of dances and make them part of their inner imaginary and imagination. Mimetic processes transfer the world of dance expressions into the inner world of humans. They contribute to culturally enriching and expanding this inner world through images of dance. The resulting mental images and their associated synaesthetic experiences vary from culture to culture, generation to generation, milieu to milieu. Since practical knowledge, mimesis and performativity are mutually interlinked, the repetition plays an important role in the transmission of the knowledge of dance. Dancing competence arises only in cases in which behavior is repeated and changed in the repetition. Without repetition, without the mimetic reference to something present or past, no cultural competence arises. Therefore, repetition is a central aspect of transmitting practical dance knowledge (Resina, Wulf [2019]).

OTHERNESS AND ALTERITY

When dances are physical representations of cultural identity, they also give people experiences of alterity (Todorov [1985], Gruzinski [1988], Waldenfels [1990], Greenblatt [1994], Wulf [2016]). They are an expression of cultural diversity and can be used to communicate cultural heterogeneity, i.e., sensitize for otherness and alterity. Only by developing a sense of alterity a standardization of

culture because of the globalization processes can be avoided. With the help of dances from other cultures, people can be made aware of the importance of the diversity of cultural heritage. Only with the help of this experience they are able to deal with strangeness and difference and develop an interest in the non-identical. Individuals are not self-contained entities. They consist of many contradictory and fragmentary elements. Arthur Rimbaud found the still valid expression «I is another» for this experience. Sigmund Freud's experience that the ego is not master in his own house points in the same direction. The integration of the parts of the subjects excluded from the self-image is a condition for being able to perceive and respect differences and alterity externally. Only when people can perceive their own alterity are they able to perceive the alterity of dances and the otherness of other people and to deal productively with both. If one succeeds in perceiving the other in one's own culture, interest arises in the foreign in other cultures and willingness to appreciate it. For this it is necessary to develop the ability to perceive from the other, i.e., heterologically, and to try to see oneself with the eyes of others (Wulf [2006]).

The development of this ability is opposed by several factors. Among the most important are the factors of rationality and individuality that are particularly valued in European cultures and which correspond with certain patterns of world experience and interpretation. Often, these are so determinative that they do not allow for experience of alterity. In dances, these two forms of reduction of strangeness play a minor role. Because with them it is the corporeality, the movements and rhythms that mediate alterity and that are hardly limited by rationality and individuality. In dances, alterity is conveyed through performativity. In mimetic processes, dancers and spectators reproduce foreign figurations, allowing them to capture and incorporate them. Insofar as movements, rhythms and figurations from foreign cultures are assimilated, new forms, rhythms and movement are created. In the age of globalization, hybrid formations are particularly widespread, in which the origin of individual structural elements can no longer be clearly identified. Since today more and more people live in different cultures at the same time, hybrid forms of expression are becoming more and more important (Wulf [2016]). The transnational youth culture and the avant-garde of contemporary dance theater contain many examples of this (Wulf et al. [2018], Brougère, Wulf [2018]).

ANTHROPOLOGICAL STRUCTURAL FEATURES

If dances are considered to be central expressive forms of the human body and thus in an anthropological perspective, then some structural features can be sketched, which designate important dimensions of the dance and the body.

SPACE AND TIME IN THE DANCE

Dances are tied to the spatiality and temporality of the human body and unfold their figurations in space and in time. They aesthetically are connected by movements in which the human body moves alone or with other bodies in temporal sequencing in space. In this process, the context and the framing of space and time play an important role. They incorporate historical and cultural, collective and individual elements that define the representation, expression and atmosphere of the dance. The pictorial scenarios, the virtual spaces and the multi-dimensional temporal orders of the contemporary avant-garde dance create conditions of space and time that expand the potentials of physical expression.

DANCE AND MOVEMENT

In the movements of dance, the body experiences itself, with the music and the movements of the dancers. In its movements, it develops the ability of the design, it forms and becomes an instrument that is used, without going into functional use. The movements of the dance contain a "surplus of meaning" in representation and

expression. In them, figurations are imagined and acted upon. The movements of dance form the body that produces them; they create imaginations and realize them in repeated stagings and performances. They are regular and expression of order. The movements of the dance reveal the docility of the body; it presents itself in exercises and repetitions (Resina, Wulf [2019]). In the movements of the dance an implicit knowledge arises, whose spectrum is very extensive. Depending on the type of dance, its movements are embedded in social power structures or, as with the contemporary avant-garde, largely released from them.

DANCE AND CULTURAL COMMUNITY

Cultural communities without dances are unthinkable. Through the symbolic content of the forms of interaction and above all through the performative processes of interaction and the generation of meaning, dances contribute to the formation of community. The techniques that make dancing possible are based on the repeatability of the necessary procedures and their controllability. Informal communities formed around dances are characterized not only by the space of a collectively shared symbolic knowledge, but also by the corresponding forms of interaction of the dances in which and with which they perform this knowledge. These productions can be understood as an attempt to ensure self-expression and reproduction of the community and its integrity. Dances create communities emotionally, symbolically and performatively; they are staged and expressive, without achieving a comprehensive agreement on the ambiguity of dance and body symbolism.

DANCE AND ORDER

As interactive patterns of action, dances develop a specific order and regularity. Correspondences and similarities can be identified and analyzed between the dances and the structures of their culture of origin. This is illustrated, for example, by a comparison between the dances at the French court and the dances of bourgeois society at the beginning of the 20th century. Dances can therefore become sources for the analysis of social body images, order and power relations; an analysis of the social order, in turn, can provide clues to understanding the structures of dances (Lippe [1974], Braun, Gugerli [1993]). In the dance a rhythmic dynamization of movements and a ludic handling of the production, change and dissolution of orders takes place.

DANCE AND IDENTIFICATION

Mimetic processes lead to the identification with the dancers and the dances and thus also to the identification with the body movements and body images implicit in the dances, the feelings they trigger and their inherent values and norms. Not occasionally, this also involves processes of inclusion and exclusion. Through identification with certain dances, an identification with lifestyles, milieus and groups is created and embodied in dancing.

DANCE AND MEMORY

Dancing creates memories. These include movements, rhythms, sounds. These are where you will find: atmospheres, erotic experiences, feelings of "flowing", of intoxication and sometimes even of ecstasy, memories of intensities, of rhythms in which people feel themselves and the others. They are synaesthetic memories that include multiple senses. Some are collectively shared memories, others are highly individual. Some memories are primarily related to mental images, others to sounds, yet others to movements. In all, the corporeality of the remembered dances plays a central role.

DANCE AS DIFFERENCE PROCESSING

In many dances differences are worked out that result, among other things, from gender, age

and ethnic differences. By dancing together, different people fade the otherwise existing differences between them. Their dance moves succeed only when they relate to each other and cooperate. They work on the differences that separate them by miming each other in dance and making themselves known to each other. By deferring differences, they create a sense of belonging in rhythmic movements. In dance, in which collective feelings are generated, confirmed and changed, ritualized forms of staging, physical action and play practices as well as mimetic forms of circulation become the focus. Therefore, a performative community of the dancers is understood as an area of action and experience characterized by staged, mimetic and ludic elements (Wulf et al. [2001, 2004c, 2007, 2011]).

DANCE AND TRANSCENDENCE

In many cultures dances are related to the cosmic order, gods, spirits, dead and unborn. With the help of dances an attempt is made to gain influence on the powers of the hereafter. In many cases, these dances are part of sacrificial rituals intended to favor gods and spirits. Mostly this happens with magical dances, in which people with the help of masks and other "props" ascribe supernatural powers, with which they can banish the evil gods and spirits. Not infrequently, through din and ecstasy, these dances mobilize "superhuman" forces to ward off the threat and endangerment of the world. In these dances, people establish order and power with the help of exclusion and inclusion, through which they seek to secure the cosmic order as well.

DANCE AND PRACTICAL KNOWLEDGE

Who dances learns much more than just dancing. Dancing develops into a physical competence which goes far beyond the dance and which is also important for other life contexts. It is accompanied by a sensitivity for movements and rhythms, for space and time, for sounds and atmospheres. Dance creates practical, body-based knowledge that is acquired in mimetic processes. In this, the actors take pictures, rhythms, schemas, movements into their imagination. Their mimetic appropriation leads the practitioners to a practical knowledge that is transferable to other situations. Practical knowledge is practiced, developed and changed in repetition. The knowledge thus incorporated has a historical and cultural character and as such is open to change (Boetsch, Wulf [2005]).

DANCE AND AESTHETICS

Because of their representational and expressive nature as well as their performativity, all dances have an aesthetic dimension that makes it clear that dances are human expressions that make them valuable components of the cultural heritage of humanity that cannot be replaced by anything else. Aesthetic dimensions include dances at the court of Louis XIV and the avant-garde of contemporary dance, as well as the magical dances of the conjuring of the gods and the spirits, the folk and ballroom dances of the 20th century and the contemporary dance forms of the youth. The cultural diversity of dances corresponds to different implicit aesthetics, which are characterized by several similarities, but above all by serious differences.

INTERCULTURALITY AND ANTHROPOLOGICAL RESEARCH

When dances are cultural representations, they also reflect the diversity that defines cultural life in the world despite the unifying tendencies of globalization. If the development of human coexistence requires more than ever to be able to cope with cultural diversity, the practices of the "immaterial" cultural heritage, not held in monuments, and in particular the dances, offer opportunities open to the stranger and gain experience in dealing with cultural diversity. In the field of education, too, there is a challenge and opportunity here; today more than ever, education has to be understood as an intercultural task (Featherstone [1995], Wulf [1995, 2006, 2016]).

OUTLOOK

Dances are forms of expression and expression of people and their bodies that make something tangible that would not be experienced without them. In many dances, people experiment with themselves and their bodies, with their history and their culture, trying to express something that cannot be presented and performed differently. Therefore, many dances, especially in the field of dance art, have an experimental claim that encourages dancers to invent and explore through the means of staging and performing the body, which contributes to the knowledge of man. If one approaches this knowledge today from the side of anthropology, three paradigms of anthropological research, with which an anthropologically oriented dance and body research can be constituted, are particularly suitable. This is philosophical anthropology, as it was developed in Germany, which emphasizes the inherently open character of human history and the possibilities of human perfectibility; the historical anthropology of the School of Annales developed in France in the first half of the 20th century and its further developments, which focus on the historical character of the human body and culture as well as questions of mentality research; as well as Anglo-Saxon cultural anthropology or ethnology with its interest in cultural diversity and heterogeneity (Wulf [2004a, 2004b, 2004c, 2010, 2013]). On the basis of these paradigms is the development of a historical-anthropological dance and body research, which is not limited to certain cultures and epochs and which is in the reflection of its own historicity and cultural ability, to overcome the Eurocentrism of large parts of the body research and the aesthetics. This requires a transdisciplinary and transcultural orientation as well as a reflexive self-criticism.

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Technical Creativity, Material Engagement and the (Controversial) Role of Language[1]

Pietro Montani

Abstract. For several hundred thousand years, the genus homo deployed a characteristic technical creativity, communicating and transmitting its outcomes, together with its operative protocols, without the available recourse to articulated language. The thesis proposed here is that the aforementioned functions should be attributed to a complex intertwining of embodied abilities, which can in turn be ascribed to the classic philosophical concept of imagination. It is through imagination that the human becomes involved in material engagement (Malafouris), by virtue of which its extended mind takes part in the processes of producing artifacts and is in turn shaped by them. The main issue of this article consists in investigating how this involvement occurs (§§ 1 and 2) and the part that articulated language plays in it, following the invention of the latter (§§ 3 and 4). The latter's emergence can indeed be traced back to the transformation and specialization of a recursive element, already present in the pre-linguistic work of imagination, whose ability to implement a denotative semantics is discussed in particular (§ 5).

Keywords. Technical creativity; Extended mind; Imagination; Language; Denotative semantics.

1. LIVING BEINGS AND THE INORGANIC

The forms of life with which the genus *homo* experimented in the course of its evolution are primarily characterized by a set of practices related to its specific *technical creativity*. Regarding this thesis, which I am inclined to take as self-evident, it seems to me that particular attention is due to the issue of empowerment: namely, the process of acquisition, via interiorization, of skills previously experimented with for a long time according to the externalized[2]

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[2] "Externalization" is a largely current, albeit unfortunate, expression. It is frankly deceptive inasmuch it makes us think that the process at stake here

modes typical of technical action. To clarify what is to be understood by "technical empowerment", and what is important about it, one need only consider two particularly powerful technologies: articulated language and writing. My aim is to reflect on the former in particular, starting from the idea that, generally speaking, articulated language – when not suppressed as irrelevant or even misleading – has not been adequately investigated within the overall context of technical creativity.

My starting point here is the concept of "material engagement" introduced by Lambros Malafouris in a recent influential book (Malafouris [2013]). Malafouris's approach has the merit of integrating the phenomenon of technical creativity into a highly efficient and persuasive paradigm, *Material Engagement Theory (MET)*, with which I largely agree. Recently, Malafouris, together with Don Ihde, reaffirmed the programmatic character of this approach, proposing anew the classic figure of *homo faber*: if we humans correspond primarily to this figure, rather than to that of *homo sapiens*, this is not so much on account of our propensity for creating artifacts, but because «we make things which in turn make us» (Ihde, Malafouris [2018]: 195). The reversibility of this relation, along with the emergences that derive from it at each turn, is thus the main requirement of MET.

I cannot enter into the details of the theory presented by Malafouris, whose debt with regard to the concept of "extended mind" I assume is recognized (Clark, Chalmers [1998]). After all, Malafouris himself defines *MET* as a «strong version of extended mind theory» (Malafouris [2013]: 227), and relates it to a "hylonoetic field", while focusing on the «importance of *mediation* in human thinking» (italics are mine), in direct opposition to the classic "hylomorphic" conception, according to which a design conceived by a human mind gives shape to lifeless matter. For its part, "mediation" should be understood as the general technical action constituted by the *equal interactive relation* established among the different "contractors" of the processes governing the emergence of artifacts. Among the many cogent examples offered by Malafouris, let us take the case of a vase produced through the proper molding of a piece of clay; I will come back to this example several times. Considering this process in the light of *MET* implies, on the one hand, emphasizing the extent to which the affordances exhibited by the clay – pliability, flexibility, relative permeability, resistance, and so on – contribute *as much as* the sensitivity of the potter's hands and the movement of the wheel to the emergence of an artifact. On the other hand, it highlights the configuration of the whole productive operation as a complex *cognitive event*, in the course of which the extended mind taking part therein ends up being re-modeled in its own turn and initialized to intentional competencies that did not exist prior to the event itself.[3] In other words, intentionality itself is an emergence within the process of material engagement, not something instructing it in a privileged way. One last point needs to be underlined: the technical creativity related to material engagement and the empowerment processes is as old as the genus *homo*. This means that this creativity had been at work long before something like language even remotely emerged. I therefore assume that material engagement can be considered a general sensorimotor agency of the human body, to which we can give the classic name of "imagination", while taking care not to lose sight of its fundamental embodiment and constitutively interactive character. Human beings "imagine" with their whole bodies – and, of course, primarily with their hands. Likewise, it was an increasingly complex system of sensorimotor protocols that drove the communicability of the human being's interactive routines for thousands of years. In spite of that, it does not seem justified, strictly speaking, to grant these forms of communication (and learning) the status of "language" (Corballis [2002], Everett 2017).

consists in "putting outside" something already conceived "inside". As will become clear in the following pages, this movement from inside to outside must be radically questioned.

[3] This description essentially coincides with what I have called "technical empowerment".

Before focusing more closely on MET in connection with the emergence of articulated language, I would like to add that, if we consider a large number of disciplinary approaches that are mutually diversified but significantly representative of the status assumed by the humanities vis-à-vis the hard sciences for the last forty years, it is possible to observe a broad consensus concerning the theoretical paradigm that Malafouris ascribes to the field of cognitive archaeology. In other words, the idea that we should focus on the embodied character of human cognition and its communication systems is broadly shared across the anthropological, neuroscientific, paleontological and psychological fields today (Gallagher [2005, 2017], Gallese, Lakoff [2005], Grusin [2017], Ingold [2001, 2013], Latour [1999], Noë [2009], Tomasello [1999]). In short, the mode of formulating the question of human cognition and experience at stake here – beyond specific, and sometimes important and significant, divergences – can be identified with a philosophical orientation characterized by the clear and rigorous delimitation of a precise system of incompatibilities (for instance, with representationalist, intentionalist or innatist theories of the mind, etc.). To that end, it applies methodological protocols that are increasingly scrupulous about the empirical adequacy and the experimental import of the theoretical hypotheses proposed.

Two points in particular deserve to be underlined. The first, already mentioned, is the radical dismissal of the "hylomorphic" paradigm (Ingold [2013]). According to this paradigm, the inorganic is nothing but a lifeless matter more or less compliantly available to receive the seal of a form following from an intentional design previously conceived by somebody's mind. The second point is that the "imaginative" performance of *homo faber* largely precedes, and deeply instructs, that of *homo symbolicus* (Malafouris [2013]: 153-177, 227-49). The two points are obviously interrelated: as we saw, on the one hand, material engagement implements and oversees the active participation of the inorganic in the emergence of the human mind; on the other hand, the temporal development of material engagement produces cognitive infrastructures, preparing the field for the emergence of the symbolic. The emergence, in particular, of something like a *phonetically articulated* and *semantically denotative* language – a technology whose implications for the radical reorganization of the human forms of life, where it likely introduced an element of discontinuity, are indeed difficult to underestimate[4] – is the specific issue that I would like to discuss.

The problems arising in connection with this event are impressive and far from being adequately formulated, let alone settled. I limit myself to listing a few of them, to which I will return in the conclusion of this article: Is it more likely that the appearance of articulated language had the character of a "sudden" irruption, or rather that of a long and gradual development? Is the phonic-articulatory trait more likely to be discriminating or rather interchangeable with resources coming from other systems of organization on the plane of expression, for instance, gesture? Is the semantic-denotative property of enunciation, that is, its "objectivity" or "aboutness", likely to determine the characterization of this technology, or rather only to integrate it into other pragmatic, communicational and expressive properties? Is the degree of self-consciousness governed by an articulated and denotative language likely to be in every way comparable with that imputed to the imaginative practices, both operative and performative, of *homo faber*, or rather to mark a significant and irreversible transformation?

2. MODES OF "CORRESPONDENCE" BETWEEN THE LIVING BEING AND THE MATERIAL WORLD

It might be useful to differentiate the *equal interactive relation* paradigm – as I have defined it in general, with reference to Malafouris's theses – from the specific theoretical inflection that a similar interpretation of human technicity assumes

[4] I will take a position on this point, which is among the most debated, in my closing remarks.

for an anthropologist such as Tim Ingold (2011, 2013). As I have already pointed out, these two conceptions, and others besides them, share a radical critique of the matter-form model, as it has been conceived for thousands of years, in terms of a hylomorphic approach. By contrast, these two conceptions can be distinguished, as it were, by the description of the "role play" discernible within this very relation, starting from the rather significant fact that, per Ingold, the concept of "interaction" should be dismissed in favor of that of "correspondence", and extending to a similar, even overly scrupulous, censure of other conceptual tools, such as embodiment and agency, which are usually associated with the idea of an extended mind.

In many respects, Ingold presents his position, starting with his terminology and recurrent examples, as a conciliatory and reassuring version of Martin Heidegger's reflections on technics – especially the oft-cited Heidegger (1949). More precisely, Heidegger's anti-humanism seems to resurface here, in the form of a non-anthropocentric humanism that willingly grants the human being's propensity to enter into a deep resonance with those "things" whose most authentic nature essentially consists in keeping their "thing-ness" in a state of flow, unlike the deplorable "objects", which Ingold considers to be stiffened products of a representational *hybris*. The result is a remarkable view of technical mediation, understood as the invention of a system of "transductors"[5] capable of setting the parallel course of two energetic flows – namely, the flow of human life and the many-sided flow of inorganic matter – into a synchronic relation, to be renewed at each turn. Here, Ingold's thought intentionally resonates with that of Gilles Deleuze and Félix Guattari (1980). Ingold offers several examples, all of which are extremely evocative and presented with irresistible commitment. Among these is Malafouris's driving example: namely, the particular material engagement through which artifacts – or rather, "things" – referable to the kind of "pottery", emerge. Desiring to maintain a rigorously non-anthropocentric position and, moreover, having opted to eschew the concepts of agency – whether human or material– and embodiment, Ingold describes the productive process according to the following scheme: the "correspondence" of the human being – and more precisely, its fluid proprioception – with the flow properties of clay is made possible only by the mediation of a transductor, which, for the matter at hand, is the potter's wheel. In the aforementioned "role play", Ingold's working model thus assumes a precise *triadic configuration*: the correspondence between human being and the fitting and fluid overabundance of *physis* – although Ingold prefers to speak of "world" – must be *creatively* mediated by the invention of transductors that actualize and "phase" it, so to speak. The place for this encounter is simply the "thing", considered in its irreducible difference from the object. This argument is commendable not only for its ability to put Heidegger in dialogue with Deleuze-Guattari, against the backdrop of a vitalist and conciliatory phenomenological *Stimmung*, but also for its effort at modeling the role of *homo sapiens* from a perspective that fosters technical creativity, outside of any lust for dominion. This *Stimmung* is the very "second technique" that Walter Benjamin (1935) connected to the ideas of play and *mimesis* qua "enhancements" of nature and neutralizations of any will to power (or destiny to submission[6]), although Ingold's (2013) text lacks this reference.

Another remark is warranted before we can assess if and where Ingold's approach encounters challenges. One might indeed wonder why such a rich and creative harmony with the fluid superabundance of the world only characterizes the

[5] Ingold is careful to distinguish between his use of this term and the concept of transductivity advocated by Gilbert Simondon (1992), an author whose original theses he values and reechoes to a certain extent.

[6] Granting the legitimacy of another Heideggerian reference, one could also speak of "production in the cradle of *physis*". Nevertheless, the fact that so many authors, so different one from the next, can stay together – or "correspond" – in the irenic problematic space opened by Ingold could be reasonable cause for suspicion.

existence of human beings, and not that of other living beings as well – or at any rate, why only the former is characterized as so powerfully marked by determining and downright catastrophic evolutionary turns. Indeed, since Ingold cannot resort to the traditional explanations that lead us, in some way or another, to consider certain cognitive, presumably species-specific, functions as innate, he appeals to the human quality that, amongst all others, seems the least anthropocentric: "feeling", understood as an *aisthesis* attuned to the paradoxical, but far from counterintuitive, condition of an ek-static and decentered proprioception[7]:

> *To correspond with the world […] is not to describe it, or to represent it, but to answer to it. Thanks to the mediating work of transduction, it is to mix the movements of one's own* sentient awareness *with the flows and currents of animate life. Such mixture, where sentience and materials twine around one another on their double thread until […] they become indistinguishable, is of the essence of making. (Ingold [2013]: 108, italics are mine)*

It is therefore by virtue of an *aisthesis* that is particularly open, mobile and free from selective filters that, of all living beings, the human being alone seems capable of corresponding with the world in the creative and transductive, which is to say, technical, way considered above. As we will now see, this last position of Ingold's must be maintained, though it cannot be taken at face value. Indeed, it does not suffice to say that the human being "feels" the fluid superabundance of the world in a "different" way than the tick or the chimpanzee does, let alone that this "diversity" is responsible for historical effects unknown to other living species – or perhaps for history *tout court*. I would now like to turn back to Malafouris's work, in order to present the problem that I left open in a new and potentially more appropriate way. I am referring to the question of articulated language as a benchmark of the specific role played by the human being within the radical and equal interaction that characterizes material engagement.

3. ANTHROPOCENTRISM OR ANTHROPOMORPHISM? AESTHETICS AND TECHNO-AESTHETICS

Ingold and Malafouris, along with many others, share an explicit suspicion toward the anthropocentrism that is likely to have supported the objectifying position at its origins and throughout its development: namely, toward the isolation of (human) agents from things, which is underwritten by the representative and hylomorphic approach. Malafouris responds very sharply to this position by definitively reaffirming a thesis that we have already examined:

> *If there is such a thing as human agency, then there is material agency;* there is no way human and material agency can be disentangled. *Or else, while agency and intentionality may not be properties of things, they are not properties of humans either; they are properties of material engagement. (Malafouris [2013]: 119, italics are mine)*

Nevertheless, Malafouris is quite aware that the kind of entanglement evidenced by the material engagement in which the human being takes part has something peculiar about it and is not entirely generalizable. He specifies this peculiarity by distinguishing between anthropocentrism and anthropomorphism. He writes that «to engage in anthropocentrism is to perceive humans at the center of reality; to engage in anthropomorphism is to perceive reality in human terms», adding that this «is a biological necessity of the human condition that we need to embrace» and that it would be impossible even merely to imagine what it would mean, for us as humans, to live and think without the constituent metaphorical apparatus on which our perception of the world – interwoven with deeply embodied sensorimotor schemes,

[7] Indeed, the prospect of a "decentered proprioception" sounds like an oxymoron. However, as a very simple exercise of insight should suffice to convince us, it is a condition readily available to intuition. For instance, it should suffice to relate it to the experience of beauty.

such as up/down, front/back, interior/exterior, and so on – is based. It follows that anthropomorphism must not be thought of «as a problem that we failed to overcome, but as a central characteristic of human projection and material engagement that demands attention and understanding» (Malafouris [2013]: 131).

The epistemological scope of this issue needs to be clarified and developed even beyond the methodological boundaries to which Malafouris confines it. More precisely, we should question whether the concept of "perception" used here is entirely appropriate, or whether it would be preferable to speak, as Ingold does, of a more general and indeterminate "sentient awareness", namely, the characteristic *openness* of human *aisthesis*. I mean to say that the reference to a specifically "aesthetic" element could help ensure a better understanding of the anthropomorphic perception to which Malafouris refers, as well as of the ek-static proprioception advocated by Ingold. Now, the "anthropomorphic" need noted by Malafouris is clearly foreshadowed in its specific epistemological status in the *Critique of the Power of Judgment*, the work in which Immanuel Kant (1781) unveils his aesthetics. Kant speaks of a "purposiveness of nature", to be understood as a "subjective" principle of the reflecting faculty of judgment. That is, namely, the principle of the particular cognitive activity whereby we formulate hypotheses concerning the existence and positive detection of regularities within the natural world. Kant writes that, in the exercise of this fundamental activity, we thus behave "as if" an intelligible design were concealed behind the great and apparently irreducible "variety of forms" with which "nature" confronts us, although this design remains entirely to be discovered. In so many words, we behave "as if" the internal structure of nature were anthropomorphically attuned to our way of knowing. It is a question, however, of a non-objective principle, a sort of hypothetical simulation, on whose grounds the reflecting faculty of judgment gives itself, and not nature, a procedural rule. Now, the point that most interests us here is that, according to Kant, the form of the anthropomorphic projection whereby nature is taken "as if" it were spontaneously attuned to our deepest expectations, that is, available to be dwelt-in and known, is a "feeling of pleasure and pain" – a feeling of something together with a feeling of oneself. It is therefore something very close to the "correspondence" claimed by Ingold, whose primary place is *aisthesis*, and not perception – as Kant would agree, insofar as the latter is interwoven with conceptuality – much less understanding (which is the seat of conceptuality).

The question set aside at the beginning – namely, of what is at stake in the "role play" between the contractors of the equal interaction in which material engagement consists, and in which the technical creativity characteristic of *homo faber* is performed – thus points toward the possibility of an aesthetic answer. The human being enters such play initially by virtue of an extremely intense, but also indeterminate and open, feeling that orients its imagination in the course of the entanglement of material engagement. And it is clear that the import of this feeling has to do with the specific creative adaptation of a living being that is compelled to find the resources for survival technically because it lacks them biologically.

On this last point, it is noteworthy that, in the *First Introduction* to the *Critique of the Power of Judgment* (which was subsequently replaced), Kant defines the principle of the reflecting faculty of judgment as a "technique of nature". This definition is less comprehensive than the definitive one, but more revealing. Put otherwise, what is felt as anthropomorphic in nature, in a purely hypothetical and "simulative" way, is first and foremost nature's conformation to a broad and indeterminate technical texture. It follows that, from its origin, human *aisthesis* has been a technically attuned feeling: a *techno-aesthetics*[8].

In Kant's original formulation, the commitment assigned to the agency of the human being through its attunement with a constitutive technicity needs to be given its proper weight; this is one possible reason, and not the least important

[8] Simondon (2014) uses the term "techno-aesthetics" in a different acceptation from this one.

one, for the philosopher's subsequent recourse to the much more indeterminate "purposiveness". If we take this last scenario seriously, the framework that we have hitherto established for relating Malafouris and Ingold in spite of their respective differences undergoes a rather fundamental change. Indeed, not only does Ingold's conciliatory *Stimmung* make room for a certain uncanny *compulsion to technical creativity* – recalling the *deinotes* that Sophocles attributes to the intrinsic technicity of the human being in the first stasimon of the *Antigone* – but in addition, the repeatedly invoked "equality" of the elements contributing to material engagement is, at least partly, called into question by the excessive activism and spectacular plasticity displayed on the part of one of them. This last aspect needs to be better defined.

4. HYPER-INTERACTIVITY OF IMAGINATION: SALIENT AND SUPERVENIENT AFFORDANCES

A final reference to the philosophical system of Kantian aesthetics will be useful for formulating the problem according to a conceptual scheme that I deem appropriate and intend to adopt for the rest of this article. While describing, in analytic terms, the aesthetic feeling whereby we humans feel an agreement, or correspondence, with nature, Kant speaks of a "free play" between imagination and understanding. More precisely, he speaks of a free play between the indeterminacy of the former and the determinateness of the latter. I will stress a few points from this well-known definition without excessive concern for philological rigor. What does it actually mean that imagination has to do with the indeterminate? It means that imagination's task consists in going through[9] the affordances of the empirical data, configuring the manifold possible synthetic unifications[10]. In the clay-work example, for instance, these involve not only the affordances manifested through the pliability of the material but also those that make the material's reactivity to a rotatory movement emerge. In the first case (pliability), one might speak of salient affordances; in the second (sensitivity to the rotatory movement), one might speak of supervenient affordances.

The point that I want to highlight is the following: in the "free play" that Kant describes, we are bound to note a focused and attentional orientation – governed, according to Kant, by understanding – along with another orientation, this one decentered and indeterminate – governed by imagination. Far from being compelled to distinguish between two faculties, as Kant does, we can attribute these two "phases" of the process to an attentive and at the same time unbiased hearing of the material: clay, in our case. It is a hearing that proves capable of focusing on the salient affordances and, at the same time, *keeping a distance from them* – a disinterestedness, as Kant would say – in order to anticipate hypothetically the supervenient affordances. In other words, a *disengagement* is at work in the play. Such a disengagement is also temporal: it is a mode of delay, among other things. This disengagement is enacted with regard to the formative cogency of the moment of salience and focused attention (Desideri [2011], Nanay [2018]). In short, the play involves a *deliverance*, capable, as it were, of displacing the sensitivity to an area at a distance. Or rather: it is a sort of *débrayage* or real *disembodiment*, which realizes a *reflective and recursive distancing* within the imaginative event itself[11]. If this were not so, the element

[9] In a surprising passage of the *Critique of Pure Reason* (Kant [1781]), Kant uses this very verb, *durchgehen*, to describe the synthetic action of imagination. In another passage in the third *Critique*, Kant speaks of "different proportions" of the relation between determined and indeterminate.

[10] In § 21 of the *Critique of the Power of Judgment*, Kant describes this imaginative process in detail.

[11] Lev S. Vygotsky was the first to present this situation in terms of recursion (Vygotsky [1934]). The aspect of the disengagement (*débrayage*) and of the following modification of the sensorimotor schemes is the pivot of a remarkable experiment with a group of macaques (Iriki et al. [1996]) that Malafouris reports (2013: 164-69) with precision. He speaks of a process of "disembodiment", which is necessary to the formation of a new skill. The concept of *débrayage*, used here in a non-formalized way,

that Ingold calls transductive would not be able to emerge. In the case in point, this element is easily discernible, not only in the wheel, but also, for instance, in the firing that the artifact must undergo to ensure its resistance and impermeability.

We must extract and highlight two points from this brief discussion. The first concerns what could be called a hyper-interactivity of the human imagination: namely, the latter's inclination to work with provisional syntheses while keeping open the possibility of grasping other profiles from among those offered by the affordances of the material world. The second concerns the reflective and recursive distancing discussed above, and more specifically, the setting up of this distancing as the condition of a process destined to favor a detachment from "things" that is sufficient to situate them in the position of "objectivity". It should be noted that this same process must be thought of as subtending the phenomenon of *scientific observation* from an epistemological perspective. Indeed, it must be understood that the objective representation (*ob-jectum*, *adaequatio*, *Richtigkeit*, *aboutness*, etc.) is not a mistake of Platonic metaphysics or the Cartesian *cogito*; it is an event with an evolutionary advantage, born of a joint action: on the one hand, of the need to identify and emend the technical errors necessarily encountered through the material engagement[12] of *homo faber*, and on the other hand, of the onset of verbal articulated language qua *specialization* of the work of profiling and articulating, spacing and segmenting, already performed by the hyper-activism of imagination for hundreds of thousands of years.

It is by no means necessary to suppose that this very function of imagination, as an immediate forerunner of language, should have somehow escaped the emergent and co-evolutionary process that Malafouris in particular elucidates.[13] Over time, in fact, imagination gradually achieved a self-consciousness of its articulatory function, thanks to a long series of externalized experiences, as one can clearly see in the earliest practices of *intentional inscription*, such as those found in the Blombos Cave dating back eighty thousand years. Here, imagination was at work in a hand as it traced lines or carved spots, testing itself out qua potential proto-writing and proto-language: this practice would later be taken up in the production of a real mnemo-technique (d'Errico, Colagé [2018]). By virtue of this technique, it would be possible to implement the similarly externalized formation of the operative concept of number (Malafouris [2013]: 106-16).

5. REFLECTIVE DISTANCING AND LINGUISTIC ARTICULATION

But the second point is even more important, as evidenced by the fact that it can be considered a specific characteristic of *homo sapiens*, whereas the previously discussed scriptural phenomena are also observable in other families of hominins. On this specific point, André Leroi-Gourhan (1964), an author respected by both Ingold and Malafouris, provides a guideline that is as valuable as it is neglected by the specialized literature. Leaving aside the fact that the periodization and terminology used by Leroi-Gourhan has been substantially reconfigured by the most recent discoveries in the field, the theoretical import of the basic guideline that he provides us stands largely independent of any potential weight attached to its precise dating. The guideline is the following: in a timeframe attributable to the Middle Paleolithic period, «a very important evolution in the field of lithic tools» took place, whereby the block originally used as material for obtaining an artifact (e.g. an amygdala, i.e. a bifacial flint) began to be exploited to produce

belongs to the theoretical terminology of semiotics (Greimas, Courtés [1982]).

[12] The derived and corrective character of the scientific attitude, with regard to technical creativity, is one of the guidelines in Georges Canguilhem's thought. For an introduction to this thinker, see Fiorenza Lupi & Stefano Pilotto (2019).

[13] «The knapper first thinks *through* and *with* the stone before being able to think *about* the stone and hence about himself as a conscious and reflective agent» (Malafouris [2013]: 176).

a certain number of splinters, which would in turn be reworked to obtain diversified tools. According to Leroi-Gourhan, this implies that:

> *the tool function had shifted from the mass initially intended to constitute the tool to the flake derived from that mass. […] We shall see later that this process is generally characteristic of the more developed industries. In other words, from being the tool itself the lump of stone has become a source of tools (as we shall see, an additional stage was to be introduced from the Upper Paleolithic onward). The blade or flake would then no longer constitute the tool but would be divided into sections providing the starting point for the making of the tool proper. (Leroi-Gourhan [1964]: 100)*

In this text, Leroi-Gourhan speaks of a "shift". However, in a highly significant essay, Emilio Garroni (1977) argues that the transformative process that Leroi-Gourhan describes should be recognized as a full-fledged discontinuity[14]. Indeed, it was not just a question of the enhancement of previous productive protocols but of the emergence of a new component, identifiable with the assumption of a specific role by the reflective and recursive trait of material engagement, which I traced above to the configuration and imposing of a process of objectifying distancing. It means that an original element was introduced into the radical and equal interaction of material engagement: this element was able to redirect material engagement toward completely new evolutionary trends, thanks in part to the decisive processes of *exaptation* concerning the phonatory and auditory apparatus (Lieberman [2007], Tattersall [2016], Cox [2018]). In short, only on this basis was it possible for something like an articulated and denotative proto-language to appear.

If this account is coherent, the problems raised at the beginning of this article could be reconsidered in a new light. Here, I must limit myself to making a list and save a proper discussion for another time.

More precisely, on the question of whether the appearance of articulated language had the character of a "sudden irruption" or a long and gradual development, one could answer that a gradual development was doubtlessly necessary, so as to allow for a reflective and distancing element to arise within the material engagement of the *homo sapiens* (and of it alone). This element would find, in phonic articulation, an extraordinarily effective medium for actualizing the work of profiling and segmentation imputed to imagination. As a consequence, we should answer the second question as follows: the phonic-articulatory trait should be considered decisively discriminating with respect to the resources of other systems of organization on the plane of expression, such as expressive-gestural ones. After all, it is clear that only once language had emerged could a large part of its articulatory properties be easily projected onto the structure of gestural communication. As to the third question, we should acknowledge that the semantic-denotative properties of enunciation, that is, its "objectivity" or "aboutness", are determining for the characterization of this technology. Furthermore, while language is integrated with other pragmatic, communicational and expressive properties, recognizable in the forms of pre-linguistic communication, it *radically reorganizes these properties*. This point leads us to another question, the one that I raised first, which now returns in all its theoretical scope and complexity. It is precisely what I called the «degree of self-awareness governed by an articulated and denotative language» that now appears incomparable with the one assigned to other communicational and performative practices governed by imagination, not only on account of the degree of grammatical formalization attainable by the subtlety of this self-awareness, but also, and above all, because language supplies the specific form of metadiscursivity to the recursion already at hand in material engagement. As Emile Benveniste (1966, 1974) in particular underlines, articulated language is indeed the only semiotic system that is able to consider itself – that is, its constituent units and enunciations – as the object of enunciation.

[14] Several paleoanthropologists agree about this specific discontinuity, on the basis of many other convergent clues. For all of them, see Ian Tattersall (2008, 2016).

Without a doubt, in the end, the incredible technological innovation that articulated language represented would go on to reorganize the "role play" of material engagement in a profound and irreversible way, by introducing the absolutely original element of a denotative semantics. The latter, of course, is a very powerful device, albeit one that depends fundamentally on the work of imagination: only this work can supply it with objectual meanings – *Bedeutungen*, as Kant calls them (1781) – and indeterminate senses (Kant [1790], Garroni [2005], Montani [2017]). In other words, once language had been invented and had assumed its articulatory properties, the inexhaustible synthetic movement of imagination alone ensured the continued rootedness of the linguistic units in the world of praxis, together with the extension and reorganization of the latter. This point is hardly discussed in the studies examined here, perhaps in part as a consequence of a conception of articulated language aligned with what is essentially a conventionalist interpretation. It happens not only that language took over, with an unparalleled power, the articulatory work ("profiling", "segmentation") previously entrusted to imagination, as well as to the scriptural events that I briefly discussed above, but also that this work empowered many other actors in the "role play" of material engagement (Gahrn-Andersen [2017]). Some of these actors may be undesirable and uncanny. I refer in particular to the irresistible tendency of recursion to behave, and understand itself, not only in terms of metadiscursivity but also in terms of *self-reference*.

In other words, it is as if language were capable of forgoing the contribution of imagination (in the very broad sense given here) and autonomously providing for the constitution and reorganization of the order of reference. It is not by chance that this process, reminiscent of autistic pathologies, evinces parallels with other symbolic practices that have a significant historical bearing. In late modernity, for instance, the sphere of images, media (Manovich [2001, 2014]), and the arts (Danto [1986], Andina [2012], Velotti [2012]) has concerned itself with phenomena of this sort in a rather characteristic way, and – somewhat convergently (Cecchi [2013]) – so has the economic sphere based on the tools of financial capitalism: one need only think of the intrinsic self-reference of so-called "futures". In our time, in short, material engagement is likely to unfold in a field so deeply permeated by technological mediation (Grusin [2017], Cecchi, Feyles, Montani [2018]) that a general reorganization of its model of understanding seems to be in order: in the new model, the crucial question of articulated language and its effects on material culture – at times controversial and at times even enigmatic – should be granted its rightful place.

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Corpus sive cultura. Nota su tecnica e corpi

Carmine Di Martino

Abstract. Even before turning to instruments, we already have a technical-cultural body, since our body always keeps track of the action of technology and culture. It is indeed thanks to both technology and culture that our body had become what it is, that is a human body, meaning a sort of biological paradox - a body unfit for survival, unspecialized and unadapted, but extremely plastic. This does not imply that the action that current technologies have upon our bodies, with their extraordinary capabilities of manipulation, does not have any consequences or cause concerns. We do nothing alien to our "nature" when we expose ourselves to the action of technology, as well as we do nothing alien to us when we set limits to technology, and not only to it. The continuous process of self-limitation is in fact a necessity for men. And setting limits to the possible (and to what can be done) is also the only way to safeguard it.

Keywords. Technology; culture, body; return effect; responsibility.

1. LA MARCIA DELLA TECNOLOGIA

Lo sviluppo della tecnica rappresenta un tratto essenziale, ad un tempo affascinante e inquietante, dell'attuale scenario mondiale. Pensiamo per esempio al rapporto tra l'uomo e i nuovi dispositivi tecnologici, tra i nostri corpi e le manipolazioni a cui essi possono venire sottoposti, tra l'ambiente naturale e gli interventi artificiali che ne hanno modificato e ne modificano profondamente la fisionomia. Qualunque prospettiva si abbia, è difficile non cogliere relativamente a tale rapporto, per come esso si è configurato negli ultimi decenni, un certo carico di problemi. I piani sono molteplici e assai diversi tra loro. Possiamo qui solo menzionarne alcuni: la discussione sull'Antropocene, con i connessi interrogativi sui tempi di sopravvivenza del pianeta Terra ovvero sulla possibilità di un suo collasso imminente; gli avanzamenti dell'ingegneria genetica e della bio-ingegneria, con implicazioni di vario genere, alcune delle quali vanno sotto il titolo di trans-umano o post-umano; i progressi dell'intelligenza artificiale, accompagnati da grandi ambizioni e da altrettanto grandi allarmi, per esempio relativi alla possibile incontrollabilità dei poteri delle macchine; lo sviluppo straordinariamente

efficace e pervasivo delle tecnologie comunicative e informazionali, che, poste al servizio del neuromarketing, ci stanno trasformando, connessione dopo connessione, in consumatori telecomandati (la sinergia tra le scoperte neuro-scientifiche sui processi cognitivo-emotivi e l'algoritmo PageRank ci profila senza sosta, plasmando i nostri desideri e predeterminando le nostre scelte). Sono solo accenni e suggestioni. Il dibattito intorno a questi temi è molto ricco e, come si può immaginare, la prima pagina è occupata soprattutto dalle posizioni estreme, quelle degli opposti fronti di apocalittici da una parte e apologeti dall'altra. Ma proprio in tale polarizzazione si mostra la nostra insufficienza, relativa tanto a un pensiero della tecnica quanto a un pensiero dell'umano.

Pensare l'essenza della tecnica. Questo sembrava a Martin Heidegger il problema decisivo per la filosofia del ventesimo secolo. Vale ancora per noi? Sì, ma esso non può a nostro avviso venire affrontato nei termini heideggeriani: essi non ci consentono di cogliere il fenomeno ad una sufficiente e concreta profondità. Heidegger, è vero, ci invita a non farci catturare dalla concezione antropologico-strumentale della tecnica, cioè a non fare della tecnica una questione semplicemente morale, di usi adeguati o inadeguati dei suoi prodotti, a non intenderla come un semplice mezzo in vista di fini o come una mera attività dell'uomo. Ma quando egli afferma che l'essenza della tecnica non è nulla di tecnico, poiché essa è un «modo del disvelamento» (un modo di dispiegarsi dell'orizzonte di manifestazione dell'ente) che precede e rende possibile (anche) l'azione tecnica e che non dipende da decisioni di singoli o di gruppi, questo non fa compiere alcun passo nella comprensione del senso originario – costituente e performativo – della tecnica. Heidegger è catturato da una visione "metafisica" (storico-destinale) della tecnica, che ci propone due grandi epoche, quella della tecnica antica (*techne*) e della tecnica moderna (*Ge-stell*), della "pro-duzione" e della "provocazione", come esiti di rispettivi invii destinali dell'essere e non di escogitazioni dell'uomo.

Heidegger risale dunque alle radici platoniche della tecnica, ossia alla *techne*, per mostrare che originariamente essa non significa fabbricare o approntare qualcosa, ma indica quell'atteggiamento conoscitivo che coglie l'ente nella luce dell'*idea* e si dispone così a dominarlo (a manipolarlo in un modo peculiare). In tale cornice, la tecnica moderna rappresenta l'incarnazione conclamata e culminante della vocazione al dominio (una vocazione implicitamente nichilistica) della *techne* greca. Nel modo del disvelamento che ci concerne oggi e che Heidegger chiama, appunto, *Ge-stell*, impianto, imposizione, provocazione, pretesa, sfruttamento violento, e che comporta la riduzione della natura a fondo impiegabile, si evidenzia nei suoi risultati estremi un seme di violenza e di dominio che appartiene all'alba della razionalità occidentale. A cominciare dalla *techne* platonica, l'atteggiamento teoretico-obbiettivante verso l'ente prende il posto del *thaumazein*, dello stupore, che caratterizza il rapporto originario dell'uomo greco con la *physis*, con la presenza delle cose, con la totalità dell'ente, inaugurando così un trattamento dell'ente che si incammina nella direzione del soggiogamento della Terra.

Questa concezione heideggeriana, con tutte le sue innegabili profondità e con i suoi salutari risvolti antimoralistici, non porta tuttavia molto lontano sotto il profilo di una concreta comprensione della tecnica e della sua azione, del suo rapporto con l'umano. Se si parla dell'uomo, di quel vivente che noi stessi siamo, dotato di un certo corpo, con una certa conformazione, capace di certe prestazioni, emotivamente comprendente e parlante, la tecnica non può essere intesa come qualcosa che viene ad aggiungersi dal di fuori, a contaminare o a corrompere un rapporto col mondo che si sarebbe potuto mantenere nella sua originaria e pre-tecnica purezza. L'uomo non ha la tecnica fuori di sé, tanto se la si pensa heideggerianamente come un determinato atteggiamento conoscitivo verso l'ente (fondato in un «modo del disvelamento») quanto se la si pensa, più comunemente, come un mezzo in vista di fini e come una attività dell'uomo.

Non vi è da una parte l'uomo e dall'altra la tecnica. Non si tratta, però, semplicemente di concepire il rapporto fra essi come una necessità a poste-

riori. L'affermazione che l'uomo ha bisogno della tecnica poiché il suo corpo, sprovvisto delle opportune capacità di difesa e di offesa, deve dotarsi di strumenti artificiali per affrontare la sfida della sopravvivenza non è sufficiente a farci comprendere il senso della tecnica e può addirittura fuorviarci. Anche quando interpretiamo la relazione tra uomo e tecnica come una necessità in vista della sopravvivenza possiamo infatti continuare a pensare il rapporto tra i due poli nei termini di una originaria esteriorità o di una contrapposizione.

Ciò che qui vorremmo mostrare è che la tecnica non si aggiunge all'uomo, al suo organismo, al suo corpo, dall'esterno, *nemmeno* come indispensabile ausilio alla sopravvivenza, ma inerisce essenzialmente al suo stesso costituirsi, al suo divenire "umano". La tecnica non è separabile né dall'accidentato percorso dell'ominazione (filogenesi) né da quello della umanizzazione (ontogenesi) degli individui appartenenti alla specie *Homo sapiens*.

2. RINUNCIARE AL "DIFETTO D'ORIGINE"

Nel panorama filosofico degli ultimi decenni non sono mancate notevoli riflessioni sul tema della tecnica. Esse hanno ripensato e condotto a una nuova profondità ciò che era già apparso all'inizio del secolo scorso ad opera della nascente antropologia filosofica: «La tecnica è vecchia quanto l'uomo», essa «è insita nell'essenza stessa dell'uomo», scrive per esempio Arnold Gehlen (1957: 32-33). Viene in primo piano l'essere essenzialmente tecnico dell'uomo. Tra gli apporti più recenti spicca per consapevolezza filosofica quello di Bernard Stiegler. Ci riferiamo qui in particolare al primo volume di *La Technique e le Temps. La faute d'Epiméthée*, in cui, rileggendo il mito di Prometeo e di Epimeteo, Stiegler sottolinea l'originaria interdipendenza dell'uomo e della tecnica. Il mito di Prometeo e di Epimeteo non va interpretato come un mito dell'origine, ma del «difetto d'origine», un difetto assolutamente necessario («*un défaut qu'il faut*»). La dimenticanza di Epimeteo nel procurare agli uomini le qualità specifiche e i mezzi necessari per sopravvivere provoca il dono da parte di Prometeo della perizia tecnica e del fuoco, che consente agli esseri umani di vivere sulla terra: la tecnica si rivela perciò come una compensazione originaria, costitutiva dell'umanità, di un difetto d'origine. In virtù di tale difetto l'uomo si rivela come essenzialmente bisognoso di protesi per esistere – per sopravvivere, socializzare, esprimersi ecc. –, è costretto a vivere mediante strumenti che suppliscono alle sue mancanze e lo conducono oltre sé.

Ciò che Stiegler intende affermare, sulla scorta della ricerca paleoantropologica di André Leroi-Gourhan, è che il processo di ominazione incontra la tecnica sin dagli inizi, o meglio, come il suo stesso inizio. Egli scrive significativamente:

> *La comparsa dell'uomo è la comparsa della tecnica […]. Leroi-Gourhan dice in effetti che è lo strumento, ossia la techne, che inventa l'uomo, e non l'uomo che inventa la tecnica. O ancora: l'uomo si inventa nella tecnica inventando lo strumento – «esteriorizzandosi» tecno-logicamente. Ora, l'uomo è qui «l'interno»: non esiste esteriorizzazione che non designi un movimento dall'interno verso l'esterno. Tuttavia, l'interno è inventato da questo movimento: non può perciò precederlo. Interno ed esterno si costituiscono di conseguenza attraverso un movimento che inventa, al tempo stesso, l'uno e l'altro: un movimento in cui si inventano l'uno nell'altro, come se vi fosse una maieutica tecno-logica di ciò che si chiama l'uomo. (Stiegler [1994]: 152)*

È chiara, dal passo appena citato, l'asserzione dell'essenziale dipendenza di ominazione e tecnica, intese – queste ultime – come i due lati di uno stesso movimento, in cui nessuno dei due precede l'altro e in cui ciascuno concorre alla emergenza dell'altro.

A fronte della decisa proposta di una «tecnicità originaria», tuttavia, il lessico (di ascendenza derridiana) del «difetto d'origine» lascia sussistere sullo sfondo, malgrado tutto, una prospettiva teorica all'interno della quale la tecnica appare come la «compensazione» di un *deficit*, di un difetto, cioè come un rimedio o un «supplemento» destinato a rispondere a posteriori a una mancanza che si trova già là, come un appello ad essere colmata.

L'ottica stiegleriana, certo, impedisce di attribuire alla tecnica il senso, che aveva in Heidegger, di contaminazione di un originario o di contrapposizione a esso, ma, proprio in virtù della semantica del «difetto» e del «supplemento», essa mantiene in vita un altro senso: quello della compensazione di una incompletezza, del rimedio a una sprovvedutezza originaria. Ciò comporta, nonostante le dichiarazioni in senso contrario e al di là delle intenzioni dell'autore, il rimanere nell'orbita di una concezione dell'uomo come l'essere originariamente «carente» e della tecnica come una necessaria risposta a tale carenza.

Quella della carenza è una prospettiva che ha avuto una certa importanza nell'antropologia filosofica. Essa non consente però di cogliere il senso originario della tecnica e la co-appartenenza di ominazione e tecnica. Per pensare in maniera più radicale il ruolo della tecnica – in accordo, crediamo, con l'intento della riflessione stiegleriana – occorre abbandonare il paradigma del "difetto d'origine" e in un certo senso rovesciarlo. Si tratterebbe, in questo senso, per usare ancora il lessico derridiano familiare a Stiegler, di spingere fino al suo punto estremo la logica della supplementarietà, così come Jacques Derrida ce la propone nel contesto di una discussione sul segno: «Qui appare – egli scrive – la strana struttura del supplemento: una possibilità produce a ritardo ciò cui è detta aggiungersi» (Derrida [1967]: 128). Tradotto nei termini del nostro problema questo significa: il fare tecnico, l'uso di strumenti artificiali, produce a ritardo la carenza (fisiologica e neuro-psichica) a cui "è detto aggiungersi", a cui cioè si presume risponda o ponga rimedio. Occorre pensare, allora, riprendendo il mito citato e in una sorta di inversione, che è il dono di Prometeo a produrre la mancanza lasciata sussistere da Epimeteo, rispetto a cui si misura la sua dimenticanza. In questa logica, il supplemento, la protesi, non interviene a rimediare a qualcosa che la precede nella forma di un *deficit*, di un inadattamento: il *deficit* è piuttosto il risultato della supplenza. Il supplemento non supplisce, dunque, bensì produce la carenza che sembrerebbe chiamato a compensare. Con ciò, naturalmente, il concetto di supplemento è spinto fino alla sua autocancellazione, fino a richiedere la sua stessa sostituzione, e la carenza perde la sua patente di originarietà: essa si mostra, nell'ottica della struttura del supplemento derridianamente concepita, come ciò che è prodotto «a ritardo» dalla compensazione che sembrerebbe deputata a soccorrerla.

3. IL DIS-ADATTAMENTO DEI CORPI

È precisamente il rovesciamento del paradigma del difetto d'origine (l'idea cioè di una causalità che va dalla mancanza originaria alla compensazione tecnica) uno degli assi principali dell'opera di Paul Alsberg, *L'enigma dell'umano*, del 1922, una fonte a lungo oscurata e spesso fraintesa della antropologia filosofica primonovecentesca. Si deve a Peter Sloterdijk (2001), che si avvale del prezioso lavoro di rielaborazione di Dieter Claessens (1993), il merito di avere riportato l'attenzione su quest'opera e sulla fecondità della sua idea centrale. È stato Alsberg, osserva Sloterdijk,

> *a porre i fondamenti essenziali per una teoria dell'evoluzione umana. Alsberg riconobbe il meccanismo chiave dell'antropogenesi in quella che egli chiama la "liberazione dai limiti corporei". Si tratta di un concetto che coglie il punto critico delle possibilità storico naturali dell'evoluzione culturale; con il suo aiuto possiamo mostrare come possa venire pensata la storia naturale della presa di distanza dagli ambienti naturali. (Sloterdijk [2001]: 149)*

L'intento di Alsberg è quello di gettare luce sulla differenza tra viventi umani e non umani e quindi sull'ominazione, ritenendo insufficienti tutte le spiegazioni sino ad allora fornite della modalità di evoluzione che conduce alla apparizione del genere *Homo* prima e della specie *Homo sapiens* poi. Dall'interno della cornice darwiniana, egli cerca di identificare un principio evolutivo che sappia rendere conto adeguatamente del processo di ominazione, facendo in tal modo compiere alla teoria evoluzionistica stessa un deciso passo in avanti. Dando per assodato infatti che non ci si possa affidare a ipotesi che ignorino la ricerca

scientifica e che si sottraggano al quadro stabilito dalla teoria evoluzionistica darwiniana, non ci si può tuttavia accontentare, secondo Alsberg, di una teoria meramente "incrementale" dell'ominazione, che riconduca l'apparizione dell'uomo al semplice incremento delle caratteristiche proprie di certi primati: per quella via non si può giungere a una chiarificazione soddisfacente del fenomeno che si ha di mira. Occorre percorrere altre strade.

È stato proprio Darwin, sottolinea Alsberg, a portare l'attenzione sul nesso tra l'organizzazione corporea degli animali e il loro ambiente, suscitando così, indirettamente, osservazioni comparative relative alla struttura della corporeità umana. Possiamo riconoscere con piena evidenza come tutti gli animali si siano adattati attraverso il corpo a ciò che li circonda e come la lotta per l'esistenza abbia fatto emergere i differenti meccanismi di adattamento e protezione. Nell'animale, scrive Alsberg, «tutto è adattamento del corpo» (Alsberg [1937]: 74). Nell'essere umano le cose stanno assai diversamente.

Il punto di partenza delle considerazioni alsberghiane è l'osservazione delle caratteristiche del corpo umano: a esso «*mancano tutte le garanzie necessarie per la sua sopravvivenza e per la conservazione della specie*, sulle quali può invece fare affidamento con certezza l'animale grazie al suo corpo perfettamente adattato alla natura» (Alsberg [1937]: 74). Va detto però che, se anche i predecessori degli esseri umani avessero avuto la stessa sprovvedutezza organica, essi avrebbero perso la scommessa della sopravvivenza: non avrebbero potuto provvedere a loro stessi e nemmeno assicurare la prosecuzione della specie. Bisogna dunque ipotizzare che, come tutti gli altri animali, essi fossero stati completamente adattati alla natura. Da ciò deriva che, nel corso della loro evoluzione, tali esseri abbiano «in qualche modo *perso* il meccanismo fisico di difesa di un tempo» (Alsberg [1937]: 75).

È qui che si apre lo spazio per le teorie della carenza. Ci si *è* infatti spinti a pensare che, nel corso del suo sviluppo, l'essere umano abbia *dapprima* perso la sua capacità difensiva e quindi, a causa di un tale stato di carenza, sia stato sollecitato, se non costretto, all'invenzione di nuove e compensative maniere di difendersi (si tratta di una direzione che va da Herder a Gehlen, passando per Nietzsche sul versante filosofico e per Bolk e Portmann su quello scientifico). Per Alsberg, questa ipotesi porta tuttavia in sé un controsenso. Infatti, se le capacità di adattamento e di difesa non fossero state *dapprima* adeguatamente sostituite, il periodo di indebolimento organico avrebbe certamente comportato l'estinzione dei primi ominini. Per tale motivo, le teorie della carenza sono state talvolta accompagnate dall'ipotesi di una nicchia ecologica protetta, priva di predatori, una sorta di "paradiso terrestre", determinatosi per circostanze fortuite e per un certo tempo, in cui le prime popolazioni di ominini poterono trascorrere un periodo di transizione, in attesa di maturare possibilità alternative di difesa e di adattamento. Ma tale congettura, secondo Alsberg, costringe a supporre un uomo prima dell'uomo, un essere umano delle origini già straordinariamente intelligente e avanzato, in grado di escogitare pressoché d'improvviso soluzioni tecniche atte a compensare la mancanza di difese organiche. Egli la ritiene perciò del tutto improbabile e in definitiva insostenibile.

Considerando le condizioni di sopravvivenza di tutti gli esseri viventi sulla terra, l'unica interpretazione plausibile è che, in ogni fase della sua evoluzione, al pari di tutti gli altri viventi, l'essere umano si sia adattato alla natura circostante e si sia equipaggiato nel migliore dei modi per sostenere la sua lotta per l'esistenza. Se si vuole rendere conto della attuale e particolare condizione dell'uomo, in quanto essere sprovvisto degli adattamenti corporei richiesti per sopravvivere, bisogna allora formulare l'ipotesi che esso abbia realizzato l'indispensabile capacità di adattamento e di difesa in altra maniera e che a motivo di ciò non abbia più avuto bisogno dei meccanismi fisici di adattamento e di protezione ereditati dai suoi antenati animali. Tali meccanismi, per via del loro mancato uso, si sono poi progressivamente deteriorati attraverso una graduale regressione. È dunque recisamente in virtù della acquisizione di altri mezzi di difesa e di resistenza che, in un secondo momento, l'organizzazione corporea dell'essere umano ha potuto indebolirsi.

Ma – ed è questo il punto decisivo della teoria alsberghiana –, poiché i meccanismi alternativi di protezione dell'essere umano non si trovano all'interno della sua corporeità, essi non possono che trovarsi fuori di essa. Di qui la conclusione che qualifica la prospettiva di Alsberg: sono stati gli strumenti artificiali a provocare l'indebolimento del corpo e non il contrario, come invece afferma la teoria della carenza, che interpreta la produzione dello strumento come compensazione, cioè come conseguenza del deperimento del corpo o del suo mancato sviluppo. Gli *strumenti artificiali* si sono dunque assunti il compito dell'adattamento alla natura «*al posto* del corpo» (Alsberg [1937]: 77). Nella piena osservanza del precetto darwiniano, con l'essere umano si verifica allora un rovesciamento della tendenza rintracciabile nell'evoluzione animale: non si va verso un sempre maggiore adattamento del corpo alle condizioni ambientali esterne, ma verso un suo sempre maggiore disadattamento, disimpegno, ossia verso una sostituzione di funzioni e azioni del corpo mediante la produzione, l'uso e lo sviluppo di strumenti artificiali. Si annunciano qui due direzioni antitetiche dell'adattamento: somatica, nell'animale; esosomatica, nell'essere umano. «Per l'*animale*», scrive Alsberg, «il *corpo* è tutto» (Alsberg [1937]: 78), perciò l'evoluzione animale si muove verso il massimo grado di adattamento del corpo. Per l'uomo le cose stanno al contrario. L'evoluzione che concerne l'uomo «si muove in maniera altrettanto mirata verso l'utilizzo, il perfezionamento e l'accrescimento dello *strumento artificiale*. Perciò "tutto attorno" all'essere umano, indipendentemente dal corpo e fuori di esso, fiorisce un regno della *tecnica* fondato su se stesso, mentre il corpo stesso, sollevato attraverso lo strumento dal suo compito originario di adattamento alla natura, regredisce» (Alsberg [1937]: 78).

Ciò spiegherebbe come mai i corpi dei viventi non umani e dei viventi umani presentino, in rapporto all'ambiente, caratteristiche strutturali diametralmente opposte: perfettamente equipaggiati e adattati i primi, sprovveduti e inetti i secondi. L'adattamento esosomatico darebbe luogo perciò a una regressione del corpo: in proporzione a quanto l'onere dell'adattamento all'ambiente si trasferisce sul conto degli strumenti artificiali, si ingenera un conseguente disadattamento del corpo. Si stabilisce, cioè, un «evidente parallelismo» (Alsberg [1937]: 77) tra progresso tecnico e regressione corporea. Corrispondentemente allo svolgimento dei compiti dell'adattamento mediante strumenti esosomatici, si produce una liberazione del corpo, un disimpegno di funzioni e di organi, con conseguenti trasformazioni somatiche in direzione di forme umane. «Nel corso della sua evoluzione», scrive Alsberg, «l'animale ha perfezionato il corpo; all'inverso, nel corso della sua evoluzione l'essere umano ha disattivato il corpo» (Alsberg [1937]: 78). Tale opposizione (perfezionamento/disattivazione) corrisponde ai due opposti principi evolutivi: «Il principio evolutivo dell'animale è il principio dell'"adattamento del corpo (*Körperanpassung*)"; il principio evolutivo dell'essere umano è quello della "disattivazione del corpo attraverso strumenti artificiali (*Körperausschaltung mittels künstlicher Werkzeuge*)"» (Alsberg [1937]: 79).

4. L'AUTONOMIA DELLO STRUMENTO

Ciò che fa da ostacolo a una genuina comprensione del principio evolutivo dell'adattamento esosomatico ora richiamato è, secondo Alsberg, una «erronea interpretazione del concetto di strumento» (Alsberg [1937]: 83). Il principale fraintendimento è costituito dalla tendenza a concepire lo strumento come mera amplificazione o estensione delle capacità corporee. Si è insistito, a suo dire, in maniera fuorviante sulla equiparazione tra «strumenti» e «organi»: in tale prospettiva i primi utensili non farebbero che prolungare il corpo. Il bersaglio dichiarato di Alsberg è la filosofia della tecnica di Ernst Kapp (1887), che considera gli strumenti una «proiezione organica»: tutto sarebbe già nel corpo e gli strumenti proietterebbero semplicemente gli organi corporei fuori del corpo. Vi sarebbe insomma una proiezione inconscia dell'organismo negli strumenti tecnici. Una interpretazione analoga, che non poteva essere conosciuta da Alsberg, è quella di Leroi-Gourhan,

il quale, ne *Il gesto e la parola*, parla dell'utensile come di una «vera e propria secrezione del corpo e del cervello degli antropiani» (Leroi-Gourhan [1964]: 109). Sicché, al paleoantropologo francese sembra ovvio «applicare» agli «organi artificiali» le stesse norme degli «organi naturali». Ciò che, secondo Alsberg, è contestabile nella concezione dello strumento come «proiezione d'organo» (e, aggiungiamo qui, come «secrezione del corpo») è la sua intrinseca tendenza a biologizzare la tecnica, a portare gli strumenti dal lato del corpo, a incorporarli, e a non distinguere tra organi e strumenti: ciò impedisce di comprendere il rapporto effettivamente intercorrente tra lo strumento esosomatico e il corpo, che non è di mera estensione, di semplice prolungamento, bensì di sostituzione, anzi, più precisamente, di sostituzione disattivante. Nella prospettiva della «proiezione d'organo» viene cioè occultata la specifica e determinante azione del mezzo artificiale sul corpo – vi torneremo fra breve – e viene conseguentemente preclusa la comprensione del processo di ominazione, che ha propriamente a che fare con essa.

Serviamoci dell'esempio fornito da Alsberg. Il martello, assunto come prototipo dello strumento, risulterebbe, nell'ottica di Kapp, «un semplice *prolungamento* o *rafforzamento* del pugno» (Alsberg [1937]: 83). La prospettiva della «proiezione organica» potrebbe trovare in questo caso un supporto nel fatto che è il pugno a dirigere il martello e che l'effetto del martello può essere inteso «*come se* il pugno fosse prolungato e rafforzato». Ma, a ben vedere, il martello non appartiene al pugno né, soprattutto, offre una prestazione che potrebbe essere compiuta dal pugno: al contrario, il martello svolge il lavoro «al posto della mano», dunque sostituisce e «disattiva» la mano come tale. Il limite della teoria kappiana si evidenzia ancor meglio allorché consideriamo uno strumento tecnico moderno come un calcolatore. Qui ovviamente non potrebbe essere l'azione della mano che digita i tasti a venir prolungata o rafforzata, ma si potrebbe pensare che lo sia quella del cervello: è chiaro, invece, con ancora maggiore evidenza, che la macchina entra in funzione «al posto» del cervello, «disattivando» il cervello esattamente in relazione alla specifica operazione del calcolare (come avviene oggi con i navigatori satellitari dei nostri *smartphone*, che sostituiscono e disattivano la nostra capacità di orientamento).

Si delinea dunque una diversa concezione dello strumento: esso è un mezzo per la disattivazione del corpo e può svolgere tale compito proprio in quanto si trova *fuori* del corpo, in una essenziale esteriorità e autonomia rispetto a esso. Se diciamo che lo strumento è un mezzo «artificiale», è proprio perché è «esosomatico» e agisce «al posto» del corpo. Può sembrare incongruo parlare di disattivazione corporea, dato che il corpo è coinvolto nella produzione e – nella gran parte dei casi – anche nell'uso dello strumento. Ma occorre opportunamente distinguere qui tra l'azione di fabbricazione e utilizzo dello strumento, che è compiuta dal corpo, e l'azione-operazione per la quale un certo strumento è creato e impiegato, che è realizzata in proprio da quest'ultimo. Il tipo di prestazione non dipende infatti dal grado di coinvolgimento del corpo, bensì dal grado di perfezionamento dello strumento. E, relativamente alla prestazione fornita, il corpo (in senso ampio: parti, organi, funzioni, processi) è sostituito e disattivato. Ciò risulta ancora più chiaro se prendiamo in considerazione le attuali tecnologie, il cui funzionamento si è largamente autonomizzato rispetto all'intervento umano ed è altamente disattivante.

La fabbricazione e l'utilizzazione di strumenti che lavorano al posto del corpo inaugura secondo Alsberg una via senza ritorno e una direzione in tutti i sensi decisiva. Lo strumento artificiale permette prestazioni che non potrebbero essere ottenute soltanto dal corpo e offre enormi vantaggi. Per quanto si dispieghi in tutte le sue potenzialità, l'organo corporeo rimane infatti all'interno dei confini predeterminati dalla sua struttura, mentre lo strumento è suscettibile di uno sviluppo imparagonabilmente più ampio, se non illimitato, e porta il corpo oltre i suoi limiti strutturali (non possiamo volare con il corpo, ma possiamo farlo con gli aerei e in modo da superare tutte le capacità organiche di volo di altri viventi; con gli strumenti artificiali possiamo ottenere, in rapporto alle pressioni ambientali, risultati del tutto preclu-

si al nostro corpo e a qualunque altro corpo). In sintesi, se si vuole intendere il principio evolutivo dell'essere umano e il ruolo della tecnica nell'ominazione bisogna, secondo Alberg, sgombrare il campo da una equivoca concezione dello strumento, che lo assorbe nell'organo e ne fa un suo semplice potenziamento: «definisco "*organo*" una qualsiasi *parte*, anatomica o funzionale, *appartenente alla struttura del corpo*, definisco invece "*strumento*" *un qualsiasi mezzo esosomatico (artificiale) con il quale si produce una disattivazione del corpo*» (Alsberg [1937]: 86). L'ambito degli strumenti è dunque essenzialmente distinto da quello degli organi ed è straordinariamente vasto: vi compaiono a giusto titolo tanto i ciottoli scheggiati degli ominini di due milioni di anni fa quanto gli *smartphone* di ultima generazione, il fuoco deliberatamente acceso e il linguaggio (di cui normalmente si tralascia la dimensione di "strumento"), ossia qualsiasi mezzo esosomatico atto a disattivare in qualche modo il corpo (e la parola è uno di questi).

5. EFFETTI DI RITORNO PRETERINTENZIONALI

Messo a fuoco il concetto alsberghiano di strumento, possiamo ora tornare sulla azione che esso esercita rispetto al corpo, completando gli accenni sopra compiuti. Dove conduce la sistematica utilizzazione di strumenti «al posto» del corpo? A una duplice liberazione: una liberazione *del* corpo, la quale implica correlativamente una singolare e specifica liberazione *dal* corpo (il termine impiegato da Alsberg, *Körperbefreiung*, contempla entrambi i significati). In primo luogo, lo strumento libera il corpo dall'onere dell'adattamento, sollevandolo dal compito di una reazione diretta alle sollecitazioni esterne, e soprattutto lo libera dai suoi limiti, dagli stretti confini delle sue possibilità strutturali (è ciò che inizia ad avvenire con l'uso sistematico del ciottolo scheggiato e si prolunga fino all'uso degli aerei, del telefono, dei computer ecc.). Tale liberazione *del* corpo comporta una corrispondente liberazione *dal* corpo, vale a dire una sua trasformazione in direzione di quel «caratteristico stato di indigenza» che ha costituito la constatatazione di partenza dell'analisi alsberghiana, ossia la carenza: il corpo subisce un processo di impoverimento, di perdita delle specializzazioni e delle capacità di difesa e protezione. Sostituito da strumenti artificiali incomparabilmente più efficienti, il corpo arretra, si ritira, non occupa più un ruolo centrale nell'adattamento, e si trova aperto a inedite possibilità di trasformazione. Alsberg afferma: «*L'animale sta sotto il principio evolutivo della "costrizione del corpo", l'essere umano sotto quello della "liberazione dal corpo"*» (Alsberg [1937]: 87).

In che consiste e come avviene questa seconda liberazione (*dal* corpo)? Se non vengono utilizzati, gli organi del corpo si atrofizzano e regrediscono, mentre con l'utilizzo essi si rafforzano e si perfezionano: questa è la regola generale richiamata da Alsberg. Disattivazione significa dunque regressione. Non solo, però. Essa significa anche progressione: la costante sollecitazione del corpo attraverso gli strumenti provoca infatti una modificazione fisiologica anche sul versante opposto. Prendiamo ad esempio la mano. Se consideriamo l'originaria capacità di brachiazione, essa subisce una regressione, diventando di gran lunga meno efficiente di quella di una scimmia. Se invece consideriamo la destrezza e la versatilità, essa acquisisce un notevole grado di perfezione, con possibilità di manipolazione uniche e completamente diverse da quelle dell'arto anteriore di una scimmia. Ovviamente, il concetto di perfezione ha qui esclusivamente legittimità in relazione allo strumento. Un altro organo con un'evidente tendenza regressivo-progressiva è il piede d'appoggio, che fa la sua comparsa grazie all'andatura eretta. Con l'uso sistematico degli strumenti, la capacità del piede di arrampicarsi sconta un drastico ridimensionamento (regressione), trasformandosi però in un solido organo d'appoggio (progressione). Anche in questo caso, l'acquisizione progressiva è tale soltanto in relazione all'utilizzo degli strumenti.

La disattivazione corporea conseguente all'uso degli strumenti plasma dunque il corpo in un intreccio mobile di regressione e progressione, con

l'atrofizzazione di alcuni organi e funzioni, come la dentatura o la brachiazione, e il potenziamento di altri. Scrive Alsberg: «La forma del corpo umano si rivela così come una regolata mescolanza di formazioni progredienti e regredienti. Nella sua dipendenza monocausale dallo strumento questa mescolanza è però la migliore dimostrazione che si possa pensare per la nostra tesi *che l'evoluzione umana è stata unicamente determinata dallo strumento» (*Alsberg [1937]: 89). Pur con una certa unilateralità o ingenuità, dovuta anche allo stato di avanzamento della ricerca nel suo tempo, Alsberg illustra chiaramente, sebbene non lo teorizzi in questo modo, ciò che altrove abbiamo chiamato "tecnogenesi preterintenzionale dell'umano" (Di Martino [2017]: 105). Quando afferma che la carenza, lo stato di indigenza del corpo umano, è un «risultato» (Alsberg [1937]: 88) della disattivazione tecnica del corpo, ovvero «un effetto storico-evolutivo dell'uso di strumenti» (Alsberg [1937]: 92), egli mostra di aver perfettamente compreso la dinamica dell'"effetto di ritorno".

È alla luce di tale dinamica che viene operata la duplice messa in questione della teoria della carenza da una parte e del paradigma "incrementale" dall'altra. Sul primo lato, bisogna allora affermare non che l'uomo, essendo incapace di sopravvivere a causa della sua sprovvedutezza biologica, ha dovuto sviluppare la tecnica, ma, al contrario, che ha potuto divenire ciò che è, vale a dire un essere singolarmente dis-adattato e de-specializzato, e perciò straordinariamente plastico, proprio grazie alla tecnica, all'uso degli strumenti e al suo effetto retroattivo sull'organismo. In questo senso, non è solamente l'uomo che inventa la tecnica, ma, nella stessa misura e più originariamente, è la tecnica, l'uso degli strumenti, che inventa l'uomo. Per questo, sul secondo lato, non si può rendere conto, nel quadro della teoria dell'evoluzione, dell'apparizione dell'uomo se non si integra il genecentrismo classico, imperniato sul principio "mutazione-selezione", mediante il riconoscimento del ruolo attivo degli individui (dei loro comportamenti, delle loro attività, delle loro forme di vita) nell'evoluzione, nell'ottica – diremmo oggi – di un pluralismo eco-evolutivo e di una considerazione del legame tra dimensione biologica e culturale-comportamentale (nella fattispecie, tecnico-culturale).

L'idea alsberghiana della «disattivazione del corpo attraverso strumenti artificiali», in cui è adombrato il principio genealogico dell'effetto di ritorno, si potrebbe esprimere oggi, in modo più compiuto e scientificamente fondato, nei termini della teoria della «costruzione di nicchia» di Olding-Smee (1988, 2003) e Laland (2003). Con essa si indicano quei processi in cui gli organismi, attraverso specifiche attività o comportamenti, giungono a modificare componenti importanti degli ambienti in cui vivono, dando luogo a cambiamenti che influenzano le pressioni selettive, le quali, una volta modificate, agiscono retroattivamente sugli organismi modificandoli (ciò non riguarda solo i nostri remoti antenati, ma tutti i viventi, sebbene per i primi il fenomeno abbia avuto proporzioni e conseguenze immensamente superiori). I processi di costruzione di nicchia intervengono sui fattori ecologici che sono alla base del meccanismo selettivo, mantenendo una certa autonomia rispetto alla selezione naturale, rappresentandone cioè non un semplice prodotto, bensì anche un agente modificatore. Non possiamo sviluppare qui questo tema, di cui ci siamo occupati più da vicino in altra sede (Di Martino [2019]).

Dal punto di vista filosofico e per i nostri scopi, decisivo è il principio dell'*effetto di ritorno*. L'uso degli strumenti – che sostituisce il corpo nei compiti dell'adattamento – produce effetti retroattivi sugli utenti, sui loro organismi, occasionando significative trasformazioni che vanno anzitutto nella direzione di una crescente plasticità fisiologica e neuropsichica, aprendo a sviluppi che non erano in alcun modo previsti o prevedibili nelle intenzioni degli utenti. Si tratta di conseguenze del tutto *preterintenzionali*, connesse a utilizzazioni orientate a tutt'altri scopi, sempre determinati (per esempio lanciare, tagliare, nutrirsi, coprirsi ecc., se pensiamo ai nostri lontani predecessori). È in queste trasformazioni – con la mescolanza regolata di regressioni-progressioni, per usare le parole di Alsberg – che si delinea l'ominazione. Que-

sto è il punto che si tratta di evidenziare: gli effetti dell'uso degli strumenti superano la prospettiva del *problem-solving*; l'agire tecnico, infatti, "torna indietro" sugli utenti modificandoli, comporta cioè *effetti retroattivi autoplastici e preterintenzionali* sui loro organismi. Ciò non avviene direttamente – come pensava Alsberg –, bensì indirettamente, nei termini cui abbiamo accennato: i comportamenti "tecnici" modificano l'ambiente, inducendo un rilassamento delle pressioni selettive esterne che interferisce con la dinamica dei processi evolutivi. Si innesca così un movimento ricorsivo: gli organismi modificano gli ambienti da cui sono a loro volta modificati.

6. IL CORPO-CULTURA

Se ci siamo serviti della prospettiva alsberghiana è per mettere in evidenza, anche nella sua scia, un nodo che ha a che fare con il titolo che ci siamo assegnati. Alla luce del principio genealogico dell'effetto di ritorno, in consonanza con il processo di costruzione di nicchia, il fare tecnico-culturale (la progettazione, la fabbricazione e l'utilizzazione di strumenti) si è annunciato come responsabile di conseguenze (autoplastiche e preterintenzionali) che interessano il livello bio-evolutivo e che portano in primo piano l'intreccio tra processi genetici legati alla selezione naturale e comportamenti tecnico-culturali. Si tratta di elementi inclusi nell'orizzonte della Sintesi Evoluzionistica Estesa attualmente in via di elaborazione, che si propone di integrare la teoria Standard della Evoluzione (Parravicini [2016]; Pievani [2016]). L'uso degli strumenti, l'adattamento attraverso il fare tecnico-strumentale, ritorna – in maniera mediata – sul corpo disattivandolo, liberandolo dai suoi limiti, perciò anche trasformandolo nel senso accennato. Vale a dire: l'uso degli strumenti non si aggiunge semplicemente all'organismo, né per compensarne le carenze permettendo a esso di sopravvivere né come una appendice che ne rafforzi occasionalmente le prestazioni (com'è per varie specie animali, che si servono all'occorrenza di strumenti, senza che su di essi ricadano gli oneri dell'adattamento).

Al contrario, con l'assunzione della stazione eretta e la conseguente liberazione – che è più propriamente una istituzione – delle mani, l'uso degli strumenti configura un adattamento eso-somatico che tende a sostituire quello somatico e interviene nelle dinamiche di costituzione dei corpi, concorre al loro *divenire* umani. Con le parole di Alsberg: «nella forma del corpo umano si dovranno trovare, come legittima reazione all'utilizzo di strumenti, accanto alle manifestazioni di regresso accertate anche le rispettive nuove acquisizioni di tipo progressivo» (Alsberg [1937]: 88). Si tratta quindi di riconoscere una dimensione tecnica e culturale dell'ominazione, inseparabile dal piano bio-evolutivo: l'individuo umano, il suo corpo, viene emergendo e prendendo forma per una via che è anche «eso-somatica», grazie cioè agli strumenti tecnico-culturali e all'azione retroattiva che questi esercitano su di esso (è così che il cranio degli ominini si è ovalizzato, la loro faccia si è accorciata, i caratteri del volto si sono ingentiliti, i tempi di maturazione sono diventati più lenti, il volume e la plasticità del cervello si sono accresciuti, le attitudini socializzanti si sono sensibilmente incrementate ecc.).

Possiamo dunque parlare di una tecnogenesi del corpo. Vi è una costituzione "tecnica" e "culturale" del corpo che ci invita a pensare altrimenti il rapporto tra corpo e cultura, corpo e tecnica. Non vi è cioè il corpo umano "più" la tecnica o il corpo umano "più" la cultura, ma un corpo-tecnica o un corpo-cultura: è già tecnico, in se stesso, questo nostro corpo "naturale", al di qua di qualunque attuale ricorso a dispositivi tecnici e a strumenti culturali; la tecnica, la cultura, è infatti entrata nel corpo, nella formazione stessa della sua forma e, in questo preciso senso, non si aggiunge a esso dall'esterno. Siamo originariamente dei cyborg, prima ancora di considerare che molti organismi umani sono tenuti in vita da oggetti tecnologici (come le macchine per dialisi) oppure ospitano in se stessi protesi tecniche (da quelle dentarie ai bypass ecc.). Abbiamo un corpo tecnico-culturale prima di qualunque ricorso a strumenti, poiché è anzitutto il corpo stesso a essere "tecnico", "cultu-

rale", vale a dire a portare inscritta nella sua forma l'azione della tecnica e della cultura (Alsberg dedica in proposito un intero capitolo alla «retroazione del linguaggio sulla formazione del corpo»; Alsberg [1937]: 95), grazie alla quale esso è divenuto quello che è, un corpo umano, una sorta di paradosso biologico, inadatto alla sopravvivenza, de-specializzato e dis-adattato, eccezionalmente plastico. Bisognerebbe chiamare qui nuovamente in gioco la strana struttura del supplemento: «una possibilità produce a ritardo ciò cui è detta aggiungersi», impiegandola per significare la retroazione trasformatrice degli strumenti esosomatici e degli abiti tecnico-culturali su quei corpi a cui tali abiti e strumenti sono normalmente detti aggiungersi.

7. POLITICHE DEL LIMITE

Che non si debba parlare, quanto agli esseri umani, di "corpo + tecnica" o di "corpo + cultura", ma di "corpo-tecnica" o "corpo-cultura" dice qualcosa di particolarmente importante relativamente a un aspetto delle questioni sollevate all'inizio del nostro percorso sul rapporto tra l'uomo e la tecnica. Vale a dire: noi non facciamo niente di estraneo alla nostra "natura" quando ci esponiamo all'azione della tecnica, poiché tale esposizione ci ha caratterizzato originariamente, ha plasmato la forma stessa dei nostri corpi. L'irruzione della tecnica è già da sempre avvenuta, inaugura e accompagna quella deriva "neotenica" che caratterizza gli organismi umani, dando luogo alla nostra peculiarità fisiologica, neuropsichica e cognitivo-sociale (come abbiamo tentato di fare altrove, occorrerebbe sottolineare, tra le altre cose, l'inseparabilità di socialità e cultura, cioè di cooperazione, cura e tecnica, per evitare l'equivoco di una assolutizzazione della tecnica quale dimensione unica e isolabile del processo bio-tecno-culturale di ominazione: lo sviluppo di capacità tecnico-culturali è correlata in modo essenziale a un "surriscaldamento" della dimensione sociale e a una organizzazione di gruppo sempre più strutturata in senso cooperativo; Di Martino [2019]).

L'intrinseco carattere tecnico (o tecnogeno) dei corpi dei membri della specie *Homo sapiens* – che motiva l'espressione *corpus sive cultura* – non ci autorizza tuttavia in alcun modo a concludere che l'esposizione dei *nostri* corpi all'azione delle attuali tecnologie, con le loro straordinarie possibilità di manipolazione, non comporti problemi, non ci autorizza cioè a un atteggiamento ingenuamente apologetico né di disinvolta denegazione. Se in un certo senso la consapevolezza della "natura tecnica" dei corpi ci preserva dalle lusinghe degli apocalittici, non ci risparmia però i loro interrogativi, impedendoci di passare, armi e bagagli, dal lato degli apologeti. Alla luce di quanto detto riguardo alla "liberazione dai limiti corporei", alla de-specializzazione e plasticità che ci caratterizza, occorre sottolineare infatti che agli organismi "umani" appartiene anche una peculiare assenza di limiti, di prescrizioni istintuali proprie della specie, che implica la necessità di una (continua) autoposizione di limiti. Gehlen parla in proposito di «eccesso pulsionale» e identifica nelle «istituzioni» l'indispensabile argine al potenziale distruttivo di quell'eccesso. In analogia con ciò, vi è l'altra singolare e determinante assenza di limiti (che chiamiamo libertà), cioè la possibilità che l'uomo ha di scardinare le condizioni della propria esistenza, di venir meno a se stesso, di mettere in atto comportamenti distruttivi o "malvagi" (una possibilità che non appartiene agli altri viventi; un animale non può mai essere "malvagio", sebbene talvolta ci esprimiamo in questi termini, poiché non può uscire dai suoi "limiti": esso non può perpetrare ciò che noi definiamo "violenza", né tantomeno quella violenza assolutamente gratuita, puramente distruttrice, di cui gli esseri umani sono "capaci").

Raccordando i due ultimi rilievi, dobbiamo allora dire: gli uomini non fanno nulla di estraneo alla loro "natura" *sia* quando si espongono all'azione della tecnica *sia* quando pongono a essa, e non solo ad essa, dei limiti, dei confini. Il problema del limite, anzi, si pone necessariamente a "noi uomini" e con esso quello della responsabilità. Günther Anders lo rimette al centro a suo modo, in chiave apocalittica, denunciando il fatto che nell'epoca della terza rivoluzione industriale il poter-fare sia

diventato un dover-fare, la possibilità si sia tradotta in ingiunzione: «il possibile è quasi sempre accettato come obbligatorio, ciò che si può fare come ciò che si deve fare (…) Non solo ciò che si può fare si deve fare, ma anche ciò che si deve fare è ineluttabile» (Anders [1980]: 11). Tale denuncia costituisce un modo paradossale di sollevare il problema del limite e della responsabilità, nella forma di una rappresentazione della sua impossibilità: ma, nel momento stesso in cui è formulata, essa diviene attestazione della capacità del «no», del distanziamento e del poter-non-fare.

Che posizione prendere, dunque, rispetto alla fattibilità (trasformabilità, manipolabilità) tecnica che si rivolge oggi in modo nuovo ai *nostri* corpi (che pure sono originariamente tecnici nel senso detto), alle *nostre* identità? Quando, e dove, collocare un limite? Non ci inoltreremo ora in una discussione sul tema, ma ci limiteremo ad avanzare un principio generale: porre limiti al possibile (al fattibile) è anche l'unico modo di salvaguardarlo, di tenere aperto l'avvenire dell'uomo e del suo corpo tecnico.

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Dal soggetto trascendentale al vivente umano. Corpo e artefatti in Helmuth Plessner

Roberto Redaelli

Abstract. The aim of this paper is to reconsider the relationship between living body and artefacts in the perspective of Helmuth Plessner's aesthesiology. According to the outcomes of Plessner's aesthesiology, I present two main theses: 1) artefacts are not created, but rather discovered (*entdeckt*) and expressed by human agency, and 2) the bodily dimension of the human being is the condition of the "discovery" of material and symbolic artefacts. To argue these theses I highlight a) the process of "somatisation" that engages the Kantian transcendental model of subject in Plessner's philosophical anthropology, b) Plessner's rejection of the Kantian profile of Uexküll's theory of Umwelt as an application of this transcendental model of subjectivity in the biological field, and c) the development in Plessner of a type of transcendental aesthetics, which can be linked with S. Crowell's recent theory of perception.

Keywords. Aesthesiology; Transcendental Aesthetics; Philosophical Anthropology; Living Body; Helmuth Plessner.

1. PLESSNER E IL NEOCRITICISMO. PER UNA CRITICA DEI SENSI

Gran parte della filosofia neokantiana ha assunto, nel corso del Novecento, la veste di filosofia astratta, apriorica, disancorata dal piano empirico-concreto, di cui ha indagato le condizioni di possibilità, posando ineluttabilmente lo sguardo oltre la sfera mondana. A tracciare tale immagine del neocriticismo ha di certo contribuito la nozione di soggetto trascendentale, quale soggettività disincarnata e sovraindividuale, astratta immagine del soggetto empirico. Con essa, infatti, la dimensione corporea, al pari di quella psichica, è introiettata, per così dire, ingoiata nell'alveo di un soggetto, la cui propria *Heimat* non riposa in seno al movimento proprio della vita[1], bensì su un piano formale, svuotato di un contenuto suo proprio. Tuttavia, accanto al predominio della coscienza trascendentale – predominio in gran parte motivato dall'intento di affrancare il soggetto d'indagi-

[1] Alla vita e alle sue categorie si riferì, in modo particolare, la filosofia diltheyana, che su Plessner esercitò un notevole influsso. Cft. Plessner (1949).

ne gnoseologica dalle antiche pastoie di qualsivoglia forma di psicologismo, biologismo e antropologismo – è possibile scorgere, in alcuni momenti del variegato movimento di ritorno a Kant, una sorta di resistenza alla riduzione dell'uomo a tale soggettività, priva di sangue e carne, dotata – secondo la celebre espressione diltheyana – della sola «linfa annacquata della ragione» (Dilthey [1883]: LXI).

Accanto a tali resistenze, tra cui occorre ricordare quella di Heinrich Rickert, che, negli ultimi anni del suo magistero, avviò, parallelamente all'indagine *erkenntnistheoretisch*, un processo di riabilitazione della dimensione corporea del soggetto in seno a una più ampia riflessione antropologica[2], si staglia, nello scenario filosofico di inizio Novecento, un peculiare programma teoretico che, benché non sia riconducibile nell'alveo del neokantianismo, intese integrare l'impianto critico attraverso una rinnovata riflessione sui sensi di carattere trascendentale. Tale programma, che assunse la foggia di una estesiologia dei sensi, di una critica dell'*aisthesis*, è stato realizzato, a più riprese, da Helmuth Plessner, il cui nome è indissolubilmente legato a quel movimento di pensiero che prese forma in area tedesca, alla fine degli anni Venti del Novecento, sotto il titolo di Antropologia filosofica[3]. Ma, benché, Plessner sia ricordato, insieme a Scheler e Gehlen, quale massimo rappresentante della *Philosophische Anthropologie,* non si possono dimenticare gli anni di apprendistato trascorsi dal filosofo a Heidelberg, fortezza della scuola neokantiana del Baden, e l'influenza che tale scuola ebbe sullo sviluppo del suo pensiero. Di quegli anni di formazione, in ambito biologico e filosofico, spesi al capezzale di Windelband e Lask, lo stesso Plessner reca, infatti, memoria nella sua *Selbstdarstellung* (Plessner [1975]: 304-308), così come negli scritti giovanili, in cui il confronto con il neocriticismo prima e con la fenomenologia poi informa il ginepraio di questioni e problemi che il giovane filosofo stava affrontando all'inizio del suo percorso intellettuale[4]. L'influenza esercitata dal neokantismo non si arrestò, tuttavia, ai soli lavori giovanili di Plessner, bensì raggiunse, seppur forse solo nominalmente, anche la sua opera capitale *Die Stufen des Organischen und der Mensch. Einleitung in die philosophische Anthropologie*, che si apre, non a caso, ricordando gli «anni di studio della zoologia a Heidelberg, come allievo di Bütschli e Herbst, Windelband e Troeltsch, Driesch e Lask» (Plessner [1928]: 3).

Quegli stessi anni, in cui Plessner fu a contatto con filosofi e scienziati della natura in una Heidelberg straordinariamente prolifica dal punto di vista culturale, il cui centro d'attrazione era costituito dal *Weber-Kreis*, lasciano la loro traccia nel fitto dialogo che il filosofo seppe intessere con l'opera di Kant, il quale costituì un fecondo interlocutore lungo il suo intero *Denkweg*[5]. Una decisiva testimonianza di tale dialogo è offerta dall'opera del 1923 *Die Einheit der Sinne*, in cui è elaborata quella estesiologia *critica* dei sensi che condurrà Plessner al lavoro di «fondazione a priori della realtà psicofisica umana» (Rasini [2006]: XIII) realizzato nelle *Stufen*. Questa fondazione, che ricolloca al centro dell'indagine filosofica l'uomo in carne ed ossa – il vivente umano – si può realizzare, agli occhi di Plessner, già nello scritto del 1923, mediante un radicale ripensamento dell'estetica trascendentale presentata da Kant nell'impianto della prima *Critica*, ed in particolare mediante una reimpostazione del problema dello schematismo trascendentale[6]. Altrimenti detto, è necessario riformulare la relazione tra piano apriorico e materiale a partire dalla normatività intrinseca alla stessa sfera dell'*aisthesis*, che non è riducibile a *medium* neutrale. Nell'*Anthropologie der Sinne* (1970), che costituisce il *pendant* dell'opera del

[2] Sulla tematica antropologica nella filosofia rickertiana si veda, in modo particolare, Rickert (1934): 146-233.

[3] Per uno sguardo d'insieme sul movimento di pensiero della *Philosophische Anthropologie* si confronti Fischer (2008).

[4] Tali scritti sono raccolti in Plessner (2015); Plessner (2016).

[5] Sul ruolo svolto dal pensiero kantiano in seno allo sviluppo della filosofia di Plessner si confronti l'istruttivo Rasini (2013b).

[6] Cfr. Plessner (1970): 30.

1923, seppur affrancato dal grigiore dell'impostazione kantiana, Plessner libera, infatti, i sensi tanto dalla subordinazione all'intelletto, quanto dalla riduzione di essi a semplici trasmettitori di informazioni[7], di *input*, come vorrebbero le scienze positive. Differentemente da tali posizioni, in cui la dimensione sensibile è, in qualche modo, marginalizzata rispetto alle funzioni intellettive, per il filosofo, i sensi possiedono leggi strutturali, che dischiudono determinate possibilità all'uomo e, con esse, un mondo a cui è assegnata una peculiare guisa: «nei modi che la nostra organizzazione sensibile ci mette a disposizione, nei modi del rapportarsi, del percepire, del sentire – scrive Plessner – si costruisce una corrispondente fisionomia del mondo: esso ha un aspetto, risuona, è palpabile... Ciascun senso ha il proprio fondamento oggettuale in ciò che esso e solo esso lascia emergere» (Plessner [1970]: 74).

A partire dalla natura normativa[8], dalle legalità dei sensi, Plessner pone nel cono di luce della sua riflessione la dimensione squisitamente corporea dell'umano, il suo peculiare avere ed essere corpo, nel suo ineludibile intrecciarsi al mondo culturale, costituito da artefatti materiali e simbolici. In questo senso, le sue ricerche si collocano legittimamente nella scia di quella riscoperta del corpo, e della corporeità del soggetto umano che contraddistingue buona parte dell'orizzonte filosofico del Novecento, tanto che il suo nome può essere associato, com'è stato fatto dallo stesso Plessner nell'opera del 1928, a quello di Sartre e Merleau-Ponty[9].

Ora, della trama ordinata dalle indagini plessneriane intendiamo qui restituire le linee principali, le fughe, l'intrecciarsi di temi divergenti in modo armonico, al fine di mettere in luce quel processo di ridefinizione realizzato dal filosofo che investe la relazione sussistente tra corpo umano e artefatti. A tale ridefinizione, per cui gli artefatti non sono creati dall'uomo bensì, in un senso ancora tutto da chiarire, sono *scoperti*, Plessner perviene attraverso un radicale procedimento di somatizzazione del modello kantiano del soggetto trascendentale, un procedimento che conduce a superare la tradizionale dicotomia tra cultura e natura, a favore di una ricomprensione unitaria, globale dell'umano nel suo essere un vivente dotato di un mondo culturale. Come accennato, tale ricomprensione avviene, in Plessner, grazie a una complessa indagine dedita alla sfera sensibile, i cui esiti più fecondi, come vedremo al termine del nostro percorso, possono contribuire, nel presente, a ripensare il decisivo ruolo svolto dalla corporeità nella costituzione del mondo culturale squisitamente umano.

2. OLTRE LE CATENE NEOKANTIANE IN DIREZIONE DEL VIVENTE UMANO. PLESSNER E IL SOGGETTO TRASCENDENTALE

Gran parte degli scritti giovanili plessneriani sono volti a un serrato confronto con la tradizione kantiana e neokantiana, ed in particolar modo con l'idea di sistema da essa veicolata, ossia, in ultima istanza, con la «natura architettonica della ragione» (Russo [2000]: 205). Legato al neokan-

[7] Più precisamente, nell'*Anthropologie der Sinne*, Plessner afferma che «il significato antropologico dei sensi non si esaurisce evidentemente nelle loro informazioni. Certo sono anche fonti di informazione, cui è per esempio rimessa tutta la nostra motricità, che però è molto più esposta a disturbi di quella animale in virtù della capacità dell'uomo di riflettere sulle proprie membra e su se stesso» (Plessner [1970]: 15).

[8] Sul carattere normativo dei sensi quale oggetto d'indagine dell'estesiologia, Plessner in *Über die Möglichkeit einer Ästhetik* precisa che «correttamente intesa dal punto di vista metodologico, l'estesiologia dello spirito è allora una critica dei sensi così come l'aveva in mente Goethe, critica e non psicologia, scienza delle possibilità e del significato normativo dei sensi nell'ambito dell'attività complessivamente dotata di valore dello spirito umano» (Plessner [1925b]: 76).

[9] Nella premessa alla seconda edizione de *Die Stufen des Organischen und der Mensch,* Plessner mette in luce una certa continuità tra le proprie ricerche e quelle dei due filosofi menzionati: «in Sartre, soprattutto nei suoi primi lavori, e in Merleau-Ponty si trovano talvolta delle concordanze sorprendenti con le mie formulazioni, così che non sono il solo a essermi chiesto se essi non conoscessero *I gradi dell'organico e l'uomo*» (Plessner [1928]: 25). Sulla relazione tra le riflessioni plessneriane e quelle svolte da Merleau-Ponty si veda il recente lavoro di Coolen (2014).

tismo fu, tra l'altro, il primo maestro di Plessner Hans Driesch, la cui *Die Logik als Aufgabe* aveva ispirato l'opera d'esordio del giovane filosofo *Die wissenschaftliche Idee. Ein Entwurf über ihre Form*, che destò da subito l'attenzione di Wilhelm Windelband, capofila del neocriticismo badense[10]. Ma, durante il lungo noviziato in ambito filosofico, Plessner non apprese esclusivamente l'uso degli strumenti concettuali offerti dal rinnovato trascendentalismo kantiano[11], bensì guadagnò familiarità anche e soprattutto con il metodo fenomenologico promosso da Husserl. Di quest'ultimo Plessner seguì fedelmente le *Vorlesungen* a Göttingen, progettando di addottorarsi sotto la sua egida, con uno scritto dedicato, non a caso, al soggetto trascendentale sviluppato da Fichte nella *Wissenschaftslehre*, in comparazione alla forma di soggettivismo presentata dalle husserliane *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*. Benché naufragato tale progetto – a causa del trasferimento a Friburgo di Husserl, dove il filosofo ereditò non solo la cattedra che fu di Rickert, ma anche la stima del suo allievo Heidegger – Plessner continuò ad apprezzare l'ethos, l'attitudine filosofica promossa dalla fenomenologia, che fu posta al centro, a dire il vero non senza problemi, de *Die Stufen des Organischen und der Mensch*, pur volgendo alla svolta idealistica husserliana (di cui il primo volume di *Ideen* fu portavoce) una chiara rimostranza[12]. La nozione di soggetto trascendentale, comune, seppur con le dovute differenze, tanto al neokantismo quanto alla fenomenologia, assunse, difatti, agli occhi di Plessner, entro alcuni luoghi dell'opera del 1928, i contorni di un pallido soggetto, di una marionetta.

Alle aporie cui incorre tale tipo di soggettività, alla quale si lega non solo il nome di Kant, bensì anche quello di Cartesio, ribatte Plessner – pur rimanendo ancorato, almeno fino alla metà degli anni Venti, su un terreno, ancora in parte, criticista – attraverso un'indagine che ha per oggetto l'organizzazione sensoriale dell'uomo. Tale tipo d'indagine, perseguita dapprima ne *Die Einheit der Sinne*, appare fin da subito informata da una duplice tensione: da un lato, essa risponde all'esigenza goethiana[13] di completare, o sarebbe meglio dire *perfezionare*[14] l'indagine trascendentale kantiana mediante uno studio, a sua volta trascendentale, dell'*aisthesis*; dall'altro lato tale teoria può perseguire l'obiettivo prefissato solo liberandosi dalle catene kantiane e neokantiane che assegnano ai sensi un ruolo subalterno nel processo cognitivo[15]. In questo senso, alla rinnovata fedeltà all'impostazione critica si accompagna, nell'opera plessneriana, un tradimento, consumato principal-

[10] Per un profilo biografico di Plessner rimandiamo, in lingua italiana, a Russo (2000): 519-521; Ruco (2007): 56-58.

[11] Tra tali strumenti vi è di certo una deduzione a priori di natura kantiana, di cui il filosofo si avvale nelle *Stufen*. Sulle difficoltà derivanti da tale deduzione si veda la precisa analisi di Russo (2000): 320.

[12] Una lucida analisi della svolta idealistica di Husserl è offerta in *Bei Husserl in Göttingen* (Plessner 1966). Per una ricognizione della ricezione plessneriana della fenomenologia si confronti Rasini (2005).

[13] Sul profilo goethiano dell'impresa plessneriana riporta l'attenzione lo stesso filosofo in *Über die Möglichkeit einer Ästhetik* (Plessner [1925b]: 76). A tale proposito significativa è anche la citazione plessneriana della missiva goethiana indirizzata a Eckermann in cui il poeta auspica un'integrazione della filosofia trascendentale kantiana mediante un'analisi, a sua volta, trascendentale della sensibilità. Cfr. Goethe (1829): 317-318 e Ruco (2012).

[14] Sull'intenzione di perfezionamento dell'idealismo kantiano si cfr. Plessner (1970): 29. Nella *Selbstanzeige der „Einheit der Sinne"*, Plessner descrive il progetto filosofico realizzato nell'opera del 1923 non tanto nei termini di perfezionamento, bensì di depurazione del metodo critico: «la tendenza fondamentale del libro è: costruire un'antropologia che permetta di conoscere l'uomo e la natura in modo equo e in pieno sviluppo, e depurare il metodo critico attraverso la sua piena applicazione» (Plessner [1925a]: 72).

[15] A proposito del ruolo subalterno dei sensi nel processo cognitivo, Plessner osserva che, «in quanto generico "sostrato del pensiero", delle loro specifiche funzioni si fa di tutt'erba un fascio, quasi si trattasse di individuare collaboratori o avversari della componente razionale della conoscenza. Una simile prospettiva risulta datata e, in fondo, considerata soltanto dal lato dell'interesse conoscitivo umano, facendo perno sulla capacità di astrazione e di ideazione che consente infine all'uomo di affrancarsi dai sensi e di considerarli una *qualité négligeable*» (Plessner [1970]: 11).

mente dal filosofo nell'*Anthropologie der Sinne*, per mezzo di un affrancamento dell'estesiologia dalle strette maglie del criticismo kantiano. Quest'ultima opera, infatti, si presenta al lettore nella veste di un'antropologia dei sensi, che individua il proprio campo d'indagine nelle «strutture stesse della percezione sensoriale» (Plessner [1970]: 9) relate ai modi di agire e operare del vivente umano: invero, scrive Plessner, «un'estesiologia dello spirito rende necessaria una teoria della comprensione che, libera da catene neokantiane, conduca a una problematica più ampia: a un'antropologia dei sensi. Quali specifiche possibilità ottiene l'uomo (come persona) dai suoi sensi, quelli a cui normalmente si affida e da cui dipende?» (Plessner [1970]: 21).

Come appare chiaro già da questi brevi accenni, al centro di tale interrogazione Plessner non colloca il soggetto trascendentale, bensì l'*uomo in carne e ossa*, e le possibilità offerte a questo essere vivente dai propri organi di senso. Da questo primato d'interesse per la sfera sensoriale-percettivo sorge poi l'esigenza, più volte ribadita da Plessner nel suo *Denkweg*, di fondare la ricerca filosofica sul fertile terreno offerto dal sapere biologico[16], con il cui aiuto è possibile riformulare la questione antropologica. Tale questione coinvolge, infatti, non solo la posizione dell'uomo nel mondo, bensì il mondo stesso, inteso nella duplice veste di natura e sfera culturale. Pertanto, la posta in gioco chiamata in causa entro la plessneriana critica dei sensi non è altro che la possibilità di avere un mondo così come esso è dato all'uomo tramite gli organi sensoriali, ossia nella forma di un mondo visibile, udibile, palpabile, odorabile, gustabile, entro il cui spazio possono sorgere le pratiche di vita e di sapere tipiche del genere umano. Detto con maggiore precisione, a tale mondo co-appartengono strutturalmente i comportamenti umani, il suo operare e gli artefatti che da esso prendono vita sulla base di una correlazione tra spirito e natura, la cui definizione rappresenta uno degli aspetti più innovativi dell'indagine plessneriana. A tale indagine antropologica va, infatti, il merito di lumeggiare quella complessa trama che coinvolge il «farsi sensibile dello spirito e il farsi spirituale dei sensi» (Plessner [1928]: 57), ossia il «sistema delle condizioni reciproche interne che domina tra le forme simboliche e l'organizzazione fisica» (Plessner [1928]: 57), in altre parole, il rapporto sussistente tra ciò che è offerto ai nostri sensi e i prodotti culturali, e quindi, in ultima istanza, l'istituzione del mondo della cultura a partire dallo schema percettivo.

Ora, seguendo il filo che intesse la trama formata da organi di senso e prodotti culturali, Plessner traccia, con una riflessione teoretica di straordinaria efficacia, le linee di una estesiologia della vista, dell'udito, del sistema propriocettivo, alla ricerca di quello che è stato definito da Erwin Straus «il senso dei sensi» (Straus [1935]) o unità dei sensi, di cui le scienze, agli occhi del filosofo, ben poco possono affermare. Ed è proprio in seno a questa ricerca, che tocca tanto le diverse arti (dalla pittura alla musica fino alla danza) quanto le diverse forme di sapere, che emerge la cifra del filosofare plessneriano, in virtù di cui, già nell'*Einheit der Sinne*, l'estetica della prima *Critica* è perfezionata – precisiamo ora – attraverso il ricorso alla fenomenologia husserliana[17]: alle vuote forme di spazio e tempo, squisitamente kantiane, il filosofo sostituisce le modalità sensoriali, di chiaro sapore husserliano, che rivelano le cose stesse. Perciò, nell'inedita *Selbstanzeige der „Einheit der Sinne"*, risalente al 1925, Plessner può affermare che «le proprietà strutturali delle cose e le modalità della sensorialità si *adattano* reciprocamente. La natura senza un occhio che la vede, un orecchio che la ascolta non sarebbe effettivamente luminosa, ma possibilmente luminosa, non sonora, ma possibilmente sonora. Occhio e orec-

[16] A proposito dell'importanza della biologia ai fini dello sviluppo dell'antropologia filosofica, nelle *Stufen*, Plessner dichiara che «siccome l'uomo è l'essere più sviluppato nella scala degli organismi ed è quello che ha raggiunto più tardi la sua forma di vita attuale, e poiché tutte le sue manifestazioni della vita spirituale poggiano sulle sue proprietà corporee, l'antropologia deve avere come infrastruttura una biologia, sia sul piano filosofico sia su quello empirico» (Plessner [1928]: 102).

[17] Cfr. Plessner (1925b): 76.

chio come organi del corpo vivente di una persona portano soltanto la condizione dell'obiettivazione delle proprietà reali delle cose» (Plessner [1925a]: 68-69).

Con tali parole, Plessner, esegue, in un sol colpo, nell'opera del 1923, secondo quanto presentato nella *Selbstanzeige*, una duplice operazione: ripensare *criticamente* i sensi, senza cedere alle lusinghe intellettualistiche del vuoto formalismo kantiano. Questo ambizioso compito è realizzato dal filosofo grazie al riconoscimento di una correlazione, di un'intenzionalità tra sensi e *sensibilia*, tra percezione e percetto, che coinvolge non solo la visione, bensì l'intera organizzazione percettiva, ossia il corpo vivente dell'essere umano, immerso nelle sue pratiche di vita. Con un solo gesto, possiamo ancora affermare, il filosofo risomatizza il soggetto, offrendogli un mondo mediante i sensi. Questo mondo non è, però, ridotto a mero prodotto della soggettività, bensì esso si presenta al soggetto per il tramite dei canali sensoriali, seguendo precise leggi estesiologiche. Si può così scorgere, entro le pieghe dell'impianto plessneriano, una peculiare logica dei sensi, al cui contraltare non si situa un materiale amorfo, al quale le regole che soggiacciono alla percezione assegnerebbero una forma, bensì un mondo già formato, di cui i sensi rivelano la fisionomia: «tanti lati, tanti sensi; ma anche: tanti sensi, tanti lati» (Plessner [1970]: 74). Il mondo si offre, dunque, al soggetto umano secondo un'accordanza, ossia una relazione bilaterale tra soggetto e oggetto, in cui, come ben osservato da Ruco, «le qualità delle cose sono per Plessner le modalità di relazione sensoriale tra la sfera soggettuale e la sfera oggettuale e risiedono nelle proprietà reali, strutturali delle cose stesse» (Ruco [2007]: 16).

Ora, l'introduzione nel discorso filosofico di quello che lo stesso Plessner definisce l'apriori materiale, del quale Kant non possiede concetto (Cfr. Plessner [1975]), a cui si accompagna una riabilitazione della dimensione somatica, sensibile del soggetto, scardina la nozione di coscienza trascendentale che informa buona parte della riflessione filosofica dei primi decenni del Novecento, fornendo, al contempo, la base per lo sviluppo di un'antropologia filosofica, quale quella plessneriana, che ha come suo fondamento una filosofia della natura di carattere evidentemente non idealistico. Solo con il passaggio dal soggetto trascendentale all'essere vivente si apre, dinanzi allo sguardo del filosofo, la via a una considerazione globale dell'uomo che possa legittimamente assumere come campo d'indagine tanto i fenomeni limite, quali ad esempio il riso e il pianto, quanto la stessa posizione dell'uomo entro il mondo naturale nella veste di organismo tra gli organismi, facendo questione, in ultima istanza, del suo essere non solo un vivente, ma anche e soprattutto un soggetto culturale.

Quest'ultima foggia dell'umano, il suo essere *Kulturmensch*, emerge già con forza nell'estesiologia dei sensi, poiché tra corpo e mente, come accennato, vi è un'accordanza, grazie alla quale i sensi offrono il materiale e, al contempo, la direzione stessa in cui l'espressione e il senso veicolato dall'espressione possano manifestarsi. Più precisamente, le forme culturali hanno il loro differenziale nella materia stessa così come si offre alla sensibilità; una materia che non è, dunque, indifferenziata, ossia priva di forma, bensì è già strutturata secondo determinate possibilità d'azione. Perciò, la cultura, nelle varie fogge in cui si manifesta, ha come propria condizione di emergenza il piano naturale, la dimensione corporea-percettiva dell'umano nella sua interazione con l'ambiente. Come vedremo ora, tale assunto conduce, nel ricco orizzonte tracciato dalle indagini promosse da Plessner, ad una radicale risemantizzazione delle sfere naturale e culturale, sottoposte a un *focus* che ne mette in luce l'intima interazione, la quale è costitutiva di quella dimensione stratificata e proteiforme del vivente umano che è al centro dell'antropologia filosofica sviluppata dal pensatore.

3. LA POLIFONIA DEL SOGGETTO UMANO E IL DESTINO DELLE CATEGORIE NELL'ANTROPOLOGIA DI PLESSNER: UNA CRITICA ALL'IDEALISMO ZOOLOGICO DI UEXKÜLL

L'istituzione plessneriana di uno spazio di riflessione – che armonizzi, almeno nelle inten-

zioni dell'autore, motivi kantiani e fenomenologici – volto ad indagare l'organizzazione percettiva, ridefinisce lo statuto stesso dell'umano: l'uomo è soggetto naturale e culturale. Ciò significa che egli è parte del regno organico e, al tempo stesso, produttore di una sfera culturale: il secondo aspetto si abbarbica sul fertile terreno dissodato dal primo. Per tale ragione, possiamo affermare che corpo e psiche non sono, secondo il filosofo, due sfere ontologiche indipendenti, bensì due aspetti dell'umano legati da una peculiare processualità. Di questa processualità, che esibisce il carattere polifonico dell'uomo ne è testimone il destino a cui è piegata la nozione di categoria entro le strette maglie della trama concettuale intessuta dal filosofo.

Tale nozione, centrale nella riflessione promossa da Kant e il neokantismo[18], assume, infatti, nella teoria a priori dei caratteri organici presentata da Plessner, un'originale veste, per così dire, relazionale. Essa non è più una funzione logica ascritta all'intelletto, bensì un principio che regola il rapporto tra organismo e ambiente:

> "Categoria" significa una forma a cui si adatta l'esperienza, ma che non deriva dall'esperienza; una forma il cui ambito non si esaurisce con la sfera del soggetto, ma si estende alla sfera degli oggetti, ragione per cui non solo l'esperienza che si fa degli oggetti, ma anche gli oggetti stessi le sottostanno. Pertanto le categorie sono forme che non appartengono né soltanto al soggetto né soltanto all'oggetto, e che in virtù della loro neutralità permettono all'oggetto e al soggetto di incontrarsi. […] tali categorie avrebbero il valore di funzioni categoriali poiché, per quanto non siano né forme derivate dal mondo che ci sta di fronte né forme imposte a quel mondo dal soggetto vivente, esse stabiliscono a un tempo la struttura del mondo e del soggetto vivente che si inserisce in esso. (Plessner [1928]: 90-91)

Da quanto emerge dalle parole plessneriane, la categoria informa l'interazione tra soggetto e oggetto; essa struttura la relazione tra mondo e soggetto vivente. Tali categorie assumono, pertanto, nella riflessione antropologica sviluppata dal filosofo, secondo la precisa espressione offerta da Russo, la veste di «principi metaempirici che sorreggono la congruenza, connessione, concordanza, armonizzazione […] tra il vivente e il suo ambiente» (Russo [2000]: 326). Così intese le categorie sono, dunque, ancora trascendentali, ma in un senso ben diverso da quello assegnato loro da Kant e dai suoi originali interpreti. Nella declinazione relazionale del categoriale si può, difatti, scorgere il definitivo congedo di Plessner dalle posizioni kantiane e neokantiane, che furono presenti, attraverso un peculiare processo di naturalizzazione, all'inizio del secolo scorso, anche in campo biologico. Un esempio di tale trascendentalismo naturalizzato, con cui Plessner si confrontò a più riprese nel corso del suo *Denkweg*, è offerto dalla celebre dottrina della *Umwelt* proposta dal fondatore dell'etologia moderna, Jakob von Uexküll.

Secondo tale dottrina, presentata da Uexküll dapprima nella *Theoretische Biologie* e poi nel capolavoro *Streifzüge durch die Umwelten von Tieren und Menschen*, a ogni specie animale corrisponde un ambiente suo proprio articolato in una sfera percettiva ed una operativa. Più precisamente, organismo e ambiente formano un'unità ben definita e un circolo funzionale strutturato secondo determinate regole, al cui centro si staglia la legge stimolo-risposta. Questa teoria, che riconosce un inscindibile rapporto di reciprocità tra organismo e ambiente, è sposata da Plessner, giacché l'organismo rappresenta ai suoi occhi «soltanto la metà della propria vita […] qualcosa di assolutamente bisognoso, che esige completamento senza il quale non può sussistere» (Plessner [1928]: 220).

L'acquisizione da parte di Plessner della teoria uexkülliana del mondo-ambiente non è però sce-

[18] A proposito delle categorie nel pensiero kantiano, e della loro relazione con la sensibilità, Plessner afferma, chiarendo in modo inequivocabile la sua posizione a riguardo, che «la ricchezza empirica dell'essere, che nel presentarsi e nel modo individuale di presentarsi è indipendente dalla mia soggettualità e oppone resistenza alla mia volontà, questo mondo *di conseguenza* reale, dal momento che si manifesta, *non differisce dalla media delle modalità di manifestazione*. Tuttavia in Kant e in tutti i kantiani lo faceva. Questi conoscono soltanto spazio e tempo, la sintesi figurale e le categorie come presupposti soggettuali» (Plessner [1925a]: 67).

vra da critiche e revisioni. In modo particolare, il filosofo non condivide la piega squisitamente kantiana che tale teoria assume: l'ambiente, secondo Uexküll, è prodotto dall'organismo animale. La teoria della *Umwelt* mette capo a ciò che è stato giustamente definito nei termini di un «solipsismo ambientale» (Brentari [2011]: 237), per cui l'apriori non è una forma del rapporto tra organismo e ambiente, come lo è nell'alveo dell'antropologia plessneriana, bensì rappresenta «una struttura del soggetto animale che solo in un secondo tempo verrebbe trasposta o proiettata all'esterno» (Brentari [2011]: 237). In altri termini, nella visione uexkülliana, l'animale costituisce il suo ambiente, esso è creatore della sua nicchia ecologica. In questo preciso senso, si può leggere la biologia teoretica proposta dall'etologo nei termini di una declinazione in veste naturalistica del trascendentalismo kantiano. Infatti, se indiscusso merito della rivoluzione copernicana di Kant è stato l'aver esibito il modo attraverso cui gli oggetti si costituiscono a partire dall'applicazione alla materia delle forme soggettive, fine ultimo della biologia, secondo Uexküll, è indagare le diverse modalità mediante cui i differenti soggetti, sulla base delle loro caratteristiche peculiari e dell'interazione con l'ambiente, istituiscano essi stessi l'oggettualità dinanzi a cui sono posti nella veste di soggetti.

Ora, data la derubricazione della funziona costitutiva dal piano squisitamente categoriale, Plessner non può che prendere le distanze dal profilo, ancora kantiano, della teoria della *Umwelt*, pur accogliendo la tesi dell'unità organismo-ambiente. A questo proposito il filosofo scrive ne *Die Stufen des Organischen und der Mensch*, in modo inequivocabile, che «Uexküll non ha ragione nel sostenere che "l'ambiente per come si rispecchia nel mondo oggettuale dell'animale è sempre una parte dell'animale stesso" […] Questo è in un certo qual modo idealismo zoologico. Al posto di una coscienza creatrice del mondo verrebbe messa un'organizzazione creatrice del mondo» (Plessner [1928]: 283). Contro tale idealismo zoologico, abbracciato dal «"kantiano" Uexküll» (Plessner [1928]: 94), il filosofo fa valere la relazione bilaterale sussistente tra ambiente e vivente.

Com'è emerso dalla nostra indagine, tale relazione bilaterale è presente, dal punto di vista sensoriale, anche nella sfera umana: il modo di datità del mondo è indissolubilmente legato ai sensi, benché non risolto in essi. Difatti, le modalità con cui si presenta la sfera mondana corrispondono, o forse sarebbe meglio dire si accordano alle modalità con cui l'uomo struttura la propria esperienza, pur senza che il mondo sia ridotto a prodotto meramente umano, ad artificio. Ciò implica, in ultima istanza, un'unità dell'esperienza che ci è data tanto dai sensi quanto dallo spirito; unità entro la quale il mondo può manifestarsi, pur permanendo in un'eccedenza insuperabile. Tuttavia, è necessario precisare ora che, secondo Plessner, tale correlazione tra organismo e ambiente realizzata a livello sensoriale non garantisce all'uomo un rapporto stabile con l'ambiente circostante. Per il filosofo, infatti, la posizione eccentrica[19] dell'umano, il suo essere sospeso, a distanza da se stesso, decentrato, rende la relazione che sussiste tra organismo e ambiente per lo più instabile, incerta, e perciò bisognosa di essere continuamente ritemprata e ridefinita mediante diversi strumenti, che danno luogo al mondo artificiale della cultura. La necessità umana di garantirsi un equilibrio (Plessner [1928]: 334) rispetto al mondo è, dunque, il movente che spinge questo essere vivente non specializzato ad *attrezzarsi*, divenendo un essere *naturalmente* artificiale: l'uomo «è per natura *artificiale*» (Plessner [1928]: 334) e «la

[19] Sulla nozione di eccentricità, già ampiamente indagata dalla letteratura secondaria sull'autore, rimandiamo a Fischer (2000) e Rasini (2013a). Particolarmente efficace è, inoltre, la sintesi della nozione plessneriana di posizione eccentrica offerta da Gehlen in *Der Mensch. Seine Natur und seine Stellung in der Werlt*, per cui «nell'uomo, il centro della *posizionalità*, sulla distanza dal quale rispetto al suo corpo proprio (*Leib*) si fonda la possibilità di ogni datità, acquista distanza rispetto a se stesso. Egli perciò sa di se stesso, è osservabile a se stesso e, in questo, è "Io", il punto di fuga, situato "dietro di sé", della propria interiorità, il quale, sottratto a ogni possibile attuazione della vita a partire dal proprio centro, costituisce lo spettatore di fronte allo scenario di questo campo interiore. È così attuata la scissione in campo esterno, campo interno e coscienza» (Gehlen [1940]: 299).

cultura non è seconda, ma prima natura» (Russo [2000]: 375). Ora, questa identificazione dell'umano con l'essere culturale non solleva comunque l'umano dal suo essere un organismo vivente, anzi possiamo ben dire che la cultura rimane ancorata, nell'ottica plessneriana, al sostrato corporeo. L'uomo inadatto ricerca un completamento innaturale, senza per questo ridurre l'innaturalità della cultura a qualcosa di svincolato dalle occasioni concesse dalla sua natura e dalla natura in generale, ossia dall'ambiente che lo circonda.

Questa dinamica è espressa chiaramente dalla prima legge antropologica elaborata dal filosofo in chiusura alle *Stufen*. Secondo tale legge, l'uomo vive, al contempo, come organismo animale nell'immediatezza della natura e come essere eccentrico nella mediazione culturale. Per tale duplicità, qualcosa si può dare all'uomo nella veste di utensile solo a partire da una ineludibile continuità con la natura:

> se si crede quindi che le cose del nostro commercio e utilizzo ricevano il loro senso pieno, la loro esistenza, unicamente per mano del costruttore, si vede soltanto mezza verità. Poiché altrettanto essenziale è, per il mezzo tecnico di ausilio (e per tutte le produzioni e la regolamentazione della forza creativa umana), il suo peso interno, la sua oggettività, che appare in esso come ciò che può essere soltanto trovato e scoperto, non fatto. Ciò che dunque si concretizza nella sfera della cultura mostra il suo essere vincolato all'autorialità umana e insieme (nella stessa misura) la sua indipendenza. (Plessner [1928]: 344)

In linea con l'abbandono di qualsivoglia soggettività creatrice di stampo kantiano, o, forse sarebbe meglio dire, in conseguenza di tale abbandono, la cultura non è, agli occhi di Plessner, il mero prodotto di un qualche ente che lavora *ex nihilo*: essa non è fatta, bensì trovata e scoperta. Ciò significa che il fare umano si abbarbica sulla sfera corporea, nel suo intimo legame con l'ambiente circostante. In questo senso, la mano del costruttore è parte di quell'organismo mediante il cui schema sensoriale è dato all'uomo un mondo, a partire dal quale possono sorgere i suoi saperi e il suo operare. Secondo un esempio richiamato più volte da Plessner, la geometria non è il risultato esclusivo delle nostre capacità intellettive, bensì anche e soprattutto di quelle visive e della nostra capacità di orientamento nello spazio. Tale capacità coinvolge tanto la stazione eretta quanto quella mano che si libera dalla locomozione per afferrare ciò che dalla vista è dischiuso. Attorno al nostro corpo si apre, dunque, un mondo fatto di possibilità ben determinate, di strutture che sono rivelate dai nostri organi di senso; un mondo che non è il mero risultato della nostra azione, bensì di un peculiare incontro, di una correlazione, seppur instabile, tra l'uomo e l'ambiente.

4. L'ESTETICA TRASCENDENTALE PLESSNERIANA: SCOPRIRE GLI ARTEFATTI, SCOPRIRE L'UOMO

Riannodando i fili del discorso fin qui svolto possiamo osservare che, secondo la prospettiva inaugurata dall'estesiologia plessneriana, gli artefatti si legano al corpo come occasioni che sono date all'uomo nel suo commercio intramondano; pertanto l'essere umano «deve riconoscere che non è stato il loro creatore originario, bensì essi sono stati realizzati solo come *occasionati* dal suo fare» (Plessner [1928]: 334). Come abbiamo visto, a tale tesi, secondo cui gli utensili, gli strumenti, il mondo artificiale della cultura non sono creati, bensì scoperti, Plessner può giungere solo mediante una peculiare operazione teoretica: egli affranca il soggetto dal primato assegnato da Kant alle attività sintetiche dell'intelletto, cui erano asserviti i sensi, e presenta, in opposizione al soggetto trascendentale e alla sua funzione costitutiva, un modello di soggettività che non crea un mondo, bensì lo accoglie e gli corrisponde originariamente mediante la percezione.

A partire da tale posizione, di contro alle teorie spiritualistiche e naturalistiche relative all'antropogenesi, secondo cui, l'uomo «si è, per così dire, inventato di sana pianta la cultura» (Plessner [1928]: 336] in virtù dell'intelligenza o della destrezza, Plessner può legittimamente sostenere che «l'uomo non inventa niente che non scopra»

(Der Mensch erfindet nichts, was er nicht entdeckt). L'oggetto, l'utensile, l'opera d'arte sono scoperti dall'uomo. Essi non sono una sua mera produzione: i mezzi tecnici, così come le creazioni artistiche, hanno un peso, un'oggettività che si "distacca" dall'agire umano.

Per Plessner, questa oggettività è data, in ultima istanza, dalla «correlazione tra l'elemento a priori e a posteriori, per come esso in generale regola la situazione dell'essere vivente» (Plessner [1928]: 344); una correlazione che rinvia, nella sfera umana, tanto alla posizione eccentrica quanto alla «struttura della realtà cosale» (Plesnner [1928]: 345). Esclusivamente sulla base di una tale correlazione è realizzabile ciò che il filosofo nomina *scoperta*, laddove con tale termine egli intende una prestazione espressiva che si appoggia sul materiale offerto dalla natura, dal cui fertile terreno sorgono tanto la tecnica quanto la cultura quali, per l'appunto, espressioni, forme, mediante cui si manifesta un contenuto.

Come abbiamo visto, a questo contenuto l'uomo ha accesso solo in seno alla dimensione mondana dischiusa dal sistema percettivo. Per tale ragione, un'indagine volta all'essenza della tecnica, dell'arte, del sapere umano è legittima solo se condotta nell'alveo di una più ampia analisi sui sensi, scandagliati nella complessa relazione strutturale che li lega al mondo. A un tale tipo di analisi si rivolgono gli sforzi teoretici di Plessner, che mettono capo a un'estetica trascendentale di ispirazione fenomenologica[20], con cui è perfezionata la riflessione kantiana sui sensi sviluppata nella prima *Critica*. Difatti, Plessner sostiene, di contro ad ogni sterile formalismo, che l'ambito percettivo sia regolato da norme a cui rispondono i contenuti intenzionali e che le percezioni trovino il proprio fondamento nella relazione corporea che l'umano intrattiene con la sfera mondana. Dunque, il corpo vivente è coinvolto nell'esperienza sensoriale, nella rivelazione di un mondo, in cui l'uomo, che è corpo ed *ha* corpo, agisce.

Occorre osservare ora che quest'ultimo carattere dell'uomo in quanto *embodied agency*, messo in luce dalla riflessione plessneriana, è oggigiorno al centro di un ampio spettro d'indagini che si appellano alla fenomenologia al fine di operare una rivalutazione della sfera percettiva. Un esempio virtuoso di tale tipo di indagine è offerto dal recente studio di Steven Crowell *The Normative in Perception*. In esso, Crowell riconosce alla percezione – a partire dalle celebri riflessioni husserliane sulla sintesi passiva, ma spingendo la riflessione ben oltre di esse – il peculiare statuto di pratica, la cui intrinseca normatività non emerge, come voleva il padre della fenomenologia, dalla coordinazione tra *kinaesthetic* e *presentative sensations*, bensì dal suo «essere 'fuori per' qualcosa, dal suo tentativo di eseguire un compito» (Crowell [2012]: 99). Difatti, per Crowell, «pratiche e abilità come camminare attorno a una candela o giocare a tennis o scrivere a computer sono competenze *corporee* che non possono essere ridotte a relazioni covarianti tra sistemi di fenomeni nella coscienza» (Crowell [2012]: 98-99).

Secondo tale prospettiva, dunque, i nostri comportamenti senso-motori non sono guidati dalle funzioni intellettive e dalla loro normatività logica, bensì hanno il loro terreno d'insorgenza in quella dimensione ante-predicativa del corpo umano che è strutturalmente relazionata al mondo. In questo senso, il modo di essere proprio del corpo, non più ridotto a un sistema di sensazioni da cui deriverebbe l'*embodiment* (Crowell [2012]: 104 n. 32), diviene la condizione d'emergenza della stessa normatività nel campo percettivo, a cui segue quella concettuale. Per tale motivo, Crowell parla, a ragione, di *perceptual practice*, di pratica percettiva, contraddistinta da fini non necessariamente mediati concettualmente, che orientano le nostre abilità, indissolubilmente collegate alla fatticità del corpo (*facticity of the body*).

A un tale tipo d'indagine, che pone nel cono di luce della sua riflessione la pratica percettiva, può contribuire l'estesiologia plessneriana con la sua felice integrazione tra teoria della percezione

[20] È necessario precisare, seppur *en passant*, che, per quanto Plessner si avvalga del metodo fenomenologico entro le sue indagini, egli non abbraccia l'idealismo coscienzialistico che per certi versi è riscontrabile nelle indagini husserliane a partire dal primo volume di *Idee*.

e antropologia filosofica, la quale restituisce all'uomo quella dimensione corporea – l'avere ed essere un corpo – verso cui la stessa fenomenologia rivolge lo sguardo ancora nel presente. L'antropologia elaborata da Plessner ha, infatti, l'indiscusso merito di lumeggiare le prestazioni dello schema sensoriale-corporeo che precedono il piano concettuale-culturale, mostrando una particolare attenzione a ciò che oggigiorno è definito nei termini di *embodied intentionality*[21]. In virtù della tematizzazione plessneriana di tale intenzionalità, possiamo riconoscere, in seno al tracciato teoretico del filosofo, quello spostamento di interesse dalla temporalità della coscienza trascendentale all'*embodiment*, che rappresenta, agli occhi di Crowell, la cifra della riflessione proposta dalla fenomenologia esistenziale post-husserliana (Crowell [2012]: 84).

Come abbiamo mostrato, a tale cambiamento capitale Plessner può pervenire mediante l'oltrepassamento del soggetto trascendentale di stampo kantiano in direzione del vivente umano, con cui è ridefinita la stessa relazione che sussiste tra l'uomo e i suoi artefatti. Infatti, nell'alveo dell'antropologia filosofica plessneriana, tale relazione non assume più la forma di una riduzione degli artefatti a meri prodotti dell'azione umana, bensì coinvolge quel «mistero della creatività» che «consiste nella *mossa riuscita*, nell'incontro tra l'uomo e le cose» (Plessner [1928]: 345). Un incontro attraverso cui, possiamo precisare ora, l'essere umano mette a nudo non solo le possibilità che gli sono offerte dal mondo, bensì se stesso nella veste di soggetto senziente e agente. Dunque, secondo il dettato plessneriano, scoprire gli artefatti del mondo significa scoprire l'essenza stessa dell'umano, ossia il suo carattere eccentrico, alla cui base non vi è, secondo il pensiero dominante la tradizione filosofica occidentale, la ragione o l'intelletto, bensì il corpo e i suoi sensi.

[21] A tale tema è dedicato, a partire da una prospettiva plessneriana, il recentissimo testo di M. Wehrle, *Being a body and having a body. The twofold temporality of embodied intentionality* (2019).

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The Technical Object and Somatic Thought. Theories of Gesture between Anthropology, Aesthetics and Cinema

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Abstract. This essay explores the lines of thought focused on the relationship between gesture and technique, examining the theories which have conceptualized the transfer of gestural matrices into inert matter, and understood technique as a result of this process. Although associated mainly with the writings of the palaeontologist André Leroi-Gourhan, this thought actually predates his work, and consists of multiple branches: having first taken root at the end of the nineteenth century, it became diffused throughout the following decades in different forms. These nevertheless shared a constant reference to cinema, both as a privileged place that captures gestures, and as a technique that can absorb their quintessence. From Espinas to Simondon, via Jousse and Eisenstein, the theory of gestural transmission breaks down various polarities, such as body and environment, organic and inorganic, animated and inanimate, performativity and inner life. It foregrounds the imaginative logic of the body and the many forms of somatic thinking developed by man. Such forms lie at the heart of the creative processes and have found their highest appreciation in cinema, as a machine that, from its very origins, has been grafted not only on the eye but on the whole body.

Keywords. Gesture; Film theory; Body agency; Prosthetics; Mimetic.

Technical gesture is the producer of forms, deriving them from inert nature and preparing them for animation.
Leroi-Gourhan (1965)

Contemporary neo-animist thought, which attributes life and agency to inorganic bodies, from artefacts to technical objects, can find possible connections and roots in the philosophical-anthropological theories of the gesture which emerged in France at the end of the nineteenth century and matured midway through the twentieth. The main thread of this thought connects Alfred Espinas to Marcel Mauss and Marcel Jousse to Leroi-Gourhan, and its various stages of development include some of Gilbert Simondon's most famous reflections. Here the gesture is no longer an involuntary, corporeal

manifestation of emotional states, but rather an interface between a subject and the world, a creative form of thought that rejects both rationality and the dimension of the drive. Being translated into an autonomous act of corporeal imagination, gesture moves therefore towards the dimension of technique, and achives this through a twofold trajectory. The first establishes an apparently reflexive relationship between the two terms, interpreting the gesture as a technique that the body learns through different forms of knowledge; the second imagines a transitive relationship, maintaining that technique is a human gesture transfused into inert material.

Let us briefly examine the first, which is the more recent and more well known, albeit less relevant to the neo-animist shift. The idea was born of a famous essay by Marcel Mauss, *Techniques of the Body* (1936), which focuses for the first time on the way in which socio-cultural conditioning affects our uses of the body. Mauss asserts the ways we use it are never natural, that everything is the result of having learned *techniques* that were constructed, historically and culturally, in various societies and traditions. These techniques are still tied to a biological element, that, while not exactly denied, is nonetheless considered secondary to the huge process of re-writing to which bodies are constantly subjected, including by the media. The pioneer of the French school of sociology thus identified a border-space between the biological and the social, where an old object – the body – becomes new:

> *The body is man's first and most natural instrument. Or more accurately, not to speak of instruments, man's first and most natural technical object, and at the same time technical means, is his body […]. I made, and went on making for several years, the fundamental mistake of thinking that there is technique only when there is an instrument. I had to go back to ancient notions, to the Platonic position on technique – for Plato spoke of a technique of music and in particular of a technique of the dance – and extend these notions.*[1]

The body's ability is technical precisely because it invents, perfects and modifies its own efficient acts, using its skills to form «pairs of mechanical elements», as Mauss writes. However, the body's technique is only partially innate, due to its exposure to the social: the body is an object which is created by culture, and culture models its gestures, postures and motorial actions – and not only its mental ones, as one might expect. In the «semi-unconsciousness» through which they are performed, techniques of the body intersect with traditions, and this factor led Mauss to his famous definition of technique as «effective and traditional actions», where the two adjectives have equal importance. His «borderline» science, as it has been defined (Karsenti [1998]: 230), consisted in an extensive deconstruction of the apparent organicity of corporeal acts with the aim of locating the convergence point of the various forces that condition bodies, and therefore troubling the boundary between nature and culture. As Mauss writes, the body's techniques are «physiopsychosociological assemblages of series of actions»[2], and he identifies three principal factors that compete in their formation. In brief: the nerve and muscle synergies made by the body, for physiological reasons (the first factor), «engage» (or not engage) according to a psychological drive (the second factor); subsequently they can be reinforced thanks to solidarity with the social context (rewarding them as virtuous, making them ritualistic, exhibiting them, etc.) (the third factor). Such forms of recognition and exhibition include, as mentioned, media representations – and especially those circulating through cinema, as Mauss suggests. For example, the medium diffused a specific walking style for girls, a wavering strut that Hollywood screens introduced across Europe in the first post-War period. Cinema's role as the great modeler of gestures and bodily techniques has recently been rediscovered in filmology, in particular by Bulgakova (2005) and Blümlinger (2017). The former turns to Mauss in order to expand on a post-War context, and in particular on the explicit re-edu-

[1] See Mauss (1936): 82-83.

[2] See Mauss (1936): 92.

cation of bodies through film as an essential part of the stimulation of democratic thought in post-Nazi Germany[3]. The latter focuses on the Taylorist experiments of Frank and Lillian Gilbreth, who created chronophotographs, some even in 3D, of the labour gestures that produced minimal energy dispersion, in order to model the actions of workers and develop the most productive body techniques possible[4].

It is not by chance that the current revival of gesture theory was inspired by film studies: if, as Vilém Flusser argues, the analysis of gestures would necessitate the foundation of an entire discipline, or rather an inter-discipline that aspires to be a «means of orienting ourselves in the circumstances in which we found ourselves with respect to things and people»[5], then it is also true that there is a platform where many twentieth-century theories of gesture meet and interact, and this common ground is represented by cinema itself. The success of Giorgio Agamben's reflections on cinemas as the «homeland of the gesture»[6] can also be explained in terms of this shared perception, i.e., that cinema is a «stakeholder» in discourses on gesturality; that it is the key instrument of its interception, archiving and transmission, and therefore also a privileged means to think through the gesture and its elusive dimensions.

Some of these nodes emerge more fully in the other trajectory where the relationship between gesture and technique has developed, thus far put aside: the transitive model[7]. Here, the technique is considered as a human gesture transferred to matter, a form of worldly intelligence based on imagination and the production of resemblance, with a resulting distribution of agency to things as a prerequisite of their animation (we can read this in the above epigraph by Leroi-Gourhan; a sign, as we will see, of the work that preceded his own). The transitive theory of the gesture was developed in three phases: the first straddled the nineteenth and twentieth centuries, the second emerged in the thirties, and the third in the fifties and sixties. It builds on scientific concepts, especially biological ones, which enabled theorists to conceive of transition first as a bio-chemical reaction of the matter, a kind of paradoxical contagion between the organic and the inorganic; in a second phase, in relation to animal mimicry, a phenomenon that destroys the boundaries between the living and the inert, between body and environment; and finally as the transcendence of the prosthetic into the idea of the autonomous machine, a sort of sub-species of the human.

The following pages will attempt to reconstruct this line of thought, illustrating how it found a testbed in cinema. More than any other, the medium of the moving image inspired the reactivation of animist thought, which emerged most fully in the so-called «lyrosophic» vision of Jean Epstein[8]. The animation of images and of the bodies inscribed within lies at the foundations of this notion of cinema-as-technique, one that breathes life into the inanimate. However, the transition that is infused into such images derives concretely from a human gesture, and this can be imagined during the camera's act of creation, according to a specific idea of the relationship between man and the world. This is why transitive theories of the gesture relied on cinema, and why they have served to reconsider the medium from an anthropological perspective.

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[3] The 2005 book is mainly about the Russian context; the application of Bulgakova's research to the German context is presented in Bulgakova (2018).

[4] Blümlinger (2017) and Blümlinger, Lavin (2018): 341-360.

[5] See Flusser (1991): 161.

[6] See Agamben (1991): 57.

[7] The imprint of gesture onto technical tools is different from Benjamin's idea of innervation. According to Benjamin, the nerves that growing through skin and muscles tissues so as to permit the transmission of motor impulses to different organs continue their ramifications into technical apparatuses, which amplify and externalize this process (see Pinotti [2018]: 88). In the transitive theory of the gesture, the point is rather the propagation of the form (and meaning) of a human attitude through technology.

[8] Epstein defines his own reflection on cinema as «lyrosophy (*lyrosophie*)», intending a form of thought that unites a rational component with an emotive and affective one.

1. PRELUDE: PROJECTIONS AND RESONANCES

This discursive field, presenting the gesture as progressively absorbed by objects utilized by the body, united anthropologists and aestheticians. At the end of the nineteenth century, these thinkers demonstrated a shared interest in biology, a key field that helped to evade the swamps of various spiritualisms. The first such thinker was the philosopher and anthropologist Alfred Espinas (1844-1922), Marcel Mauss's teacher at the University of Bordeaux, friend and colleague of Théodule Ribot and promoter of a «scientific» sociology that looks at human phenomena from a biological perspective, searching for the rules of nature that govern the actions of men within their social life. Regarding the themes at issue here, Espinas's volume on the origins of technology (1897) is particularly relevant. Though predominantly a social history of antiquity, the volume also introduces two key notions: first, the idea of *praxéologie*, the study of simple and spontaneous human actions that are governed by social rules and followed unconsciously; second, the theme of the prosthetic, adapted from the German philosopher Ernst Kapp – the first to have elaborated this concept in an explicit way. In his pioneering *Elements of a Philosophy of Technology*, Kapp interprets technique as a *continuation* and a *projection* of limbs, organs and senses, from the concave hand as a bowl to the neural system as telegraph cables[9]. This produced a very important intuition, the full relevance of which Espinas fully understood. Kapp's idea of «projection» represents the first materialisation of the notion of technique as reproduction of a form; it meant not only the intensification and extension of the body's functions, but also the transfer of a *conceptual matrix*, from the organic to the inorganic. Espinas then adopted Kapp's key concepts, addressing the question from a specific slant: emphasizing the unconscious, uncontrolled and unacted part of the extension of the body in tools. «The tool and the worker are one», Espinas writes, «the worker uses it like an extended limb, barely ever remarking on its structure, nor seeking to understand how its various parts adapt so well to their aim» (Espinas [1897]: 45). In use and design, the process is therefore «naturally» an imitation, and thus Espinas's work establishes a first idea of the body-machine.

> *The machine is no longer a projection of the limb's extremities, but of the articulation that unites them with each other and with the torso, enabling them to be, to act upon each other, to carry out certain movements and to exclude others. A machine is a combination of rigid and elastic pieces that are put together in such a way that the application of force to one part of the system produces movement in another, the only possible movement, that is perfectly designed for a useful objective.*[10]

The same year that Espinas's *Les origins de la technologie* was published also saw the release of *De la correlation des sons et des couleurs en art* by the musicologist Albert Cozanet, under the *nom de plume* Jean d'Udine[11]. The synesthetic theory of art that d'Udine developed in this volume was the first step toward his more comprehensive theory of the gesture. It then found a more definitive form in *L'art et le geste* (1910), a very influential essay that profoundly conditioned the work of Francis Picabia[12] and left its mark, as we will see, on the work of Sergei M. Eisenstein too. D'Udine adapted the notion of the gesture from the work of Swiss musician and pedagogue Jacques-Dalcroze, the father of eurythmics. He moreover combined it with the ideas of another key figure from his education, the doctor and biologist Félix Le Dantec, who provided a source of inspiration in particular for his studies of the imitative behaviours of protoplasm. D'Udine's bio-aesthetic project covered many of the arts, with the curious exception of cinema, though the musicologist had come close in his synesthetic experiments – enough so to invent an apparatus that could

[9] See Kapp (1877). On his fundamental role to the theory of the prosthetic see Somaini (2018).

[10] Espinas (1897): 46 (my translation).

[11] See D'Udine (1897).

[12] Pierre (2002): 102.

project colours to accompany sounds (Guido [2007]: 147). In the chapters of his extensive treatise, however, he addresses sculpture, painting, architecture, literature and music, and identified the primary role of dance: a naturally synesthetic art since it converts sounds into movements of the body according to a rhythmical meaning. With Dalcroze, d'Udine believed that the gesture was originally born of the body's immediate reaction to an auditory stimulus, a muscular contraction that was an instinctive imitation, but which could be sophisticated and strengthened through specific learning. He hence formulated an initial definition of the gesture as human imitation and restitution of the natural rhythms of things. This however followed Le Dantec's definition of imitation, i.e., not as a mere reproduction of appearances but rather as *resonance*, as the result of an affinity between two immeasurable systems that are harmonized through a shared interface (Le Dantec [1902]). The interface is guaranteed by the Dalcrozian «muscular sense», a hyper-sense which unites all others and which consists in a vast, rhythmic memory stored within cells. This organic database is accessed every time a gesture is used in response to a stimulus, which resonates in the colloidal nodes (made of suspended microparticles in perpetual movement). Among the nodes lies protoplasm, the base material of living cells, which reacts to the stimulus by vibrating and reproducing the external rhythm in an undulating movement. Continual interceptions and translations of rhythms constitute a physiological question that also has significant psychological resonances, therefore inspiring d'Udine to introduce a second definition of the gesture: «The gesture is the plastic form of our "state of mind", and not only its emanation; it is an integral, essential part of it, and constitutes an inseparable rhythm, the breadth of which directly influences the intensity of our passion»[13]. Though he strays into the realm of expression, d'Udine does not reaffirm the classical idea of the gesture as a symptom of a passion located elsewhere (i.e. in man's unfathomable «interiority»); rather he argues that gesture and state of mind are two parts of the same rhythmic phenomenon. This can find other sensorial translations including, as he suggests in one of the text's most well-known sections, in colours, volumes or words. Indeed, the arts are grafted onto this first conversion of rhythm into gesture, after each one has retraced a gesture according to its own specific sensorial modality. The aesthetic process that d'Udine describes is therefore similar to a kind of contagion, it is a circular chain of intermediated transmissions of gestures: the rhythm infects the muscular sense and becomes gesture/affect, these grow together into an «aggregation of matter»: the work. Even though it is inert, the latter can always reproduce the original gesture, transferring it to other individuals and enabling them to feel the same emotion. In this way, the artefact becomes a kind of fossil, which contains the «plastic form of a state of mind», the creative gesture translated and transferred but always ready to be re-activated. In this way, the visions of the anthropologist and the musicologist meet, in the shared idea that to create is to model matter according to a gesture, projecting onto it a framework which consists in a series of rhythmic combinations that identify operative models or forms of feeling.

But is it really worth insisting on the latter distinction? Are there ultimately some gestures that are purely technical and serve only to manipulate, and others that are essentially expressive, so limited to externalizing a state of mind in a symptomatic or symbolic way? This is one of the most elusive questions relating to the gesture, and one of the unresolved knots that cinema highlighted in a particularly explicit way, not only in film theory but also through the force of its images. When Kubrick portrayed a hominid in the exact moment it understands the potential of a dried-out tapir bone, creating the first aggressive-defensive tool, he used montage to show how the monkey's gesture is simultaneously an efficient action and the expression of a feeling. First the hominid is looking for food, it digs with its back legs but keeps its snout close to the carcass to get organic remains into its mouth quickly. But then, under the influ-

[13] D'Udine (1910): 214 (my transl.).

ence of the infamous monolith, it stops, it repeatedly tilts its head from side to side, as though seeking the perfect angle to take in what stands before it. It attempts to hold a femur as a club, first allowing it to fall languidly to the ground two or three times, enough to note the destructive effect of its impact on the skeleton. In that moment, its body has begun to imagine, its arm carries out more and more consciously the percussive and violent gesture through its weaponized limb, depicted carefully in all of its parts through slow-motion (and made triumphant over Strauss's musical notes). In a sense, the use of slow-motion transforms the technical object into an expression, or, perhaps trying to nuance the concept, foregrounds the feeling that it accompanies. Without doubt it shows that exercising a gesture in all its technical functionality introduces an excess of some kind: the more precise its execution, the more the gesture transcends its performative limits and filters what it affects. As soon as the club has been invented, hand and mouth are separated in an energetic, upward outburst of the body: a medium shot becomes a close-up of the monkey's face as it howls and bears its jaws, as though the hand gesture has continued into the face, in the form of an expression; the mouth *expresses* what the hand *does*; in this sequence we see ground zero, the moment in which the two corporeal actions coincide. At the same time, beating the ground with the club has its own expressivity, determined by the intensity of the blow, its frequency and its efficiency. As the monkey beats the bone languidly we see its mental condition, its state of perplexity and suspension; analogously the more the impetus grows, the more we see aspiration, desire, fury, and the development of a dominating posture. In this cult sequence, cinema therefore «thinks», via images, the precarity of the confines between technique and expression, re-articulating the profound dialectic within the human gesture[14].

2. THEME: REFLEXES AND IMITATIONS

The Kubrickian sequence therefore helps us to conceive of how a gesture impressed in an object consists in two elements, one performative and the other affective, combined in varying proportions. The motif of the composition of gestures returned, later, in the work of two extremely different thinkers, as regards their formation and contexts: the Jesuit anthropologist Marcel Jousse (1886-1961), a student of Mauss that, through the latter, had access to Espinas's philosophy; and the director and film theorist Sergei M. Eisenstein. Their work makes more explicit the question of imitation posed by d'Udine, and achieves this returning to the important theme of mimetic ability, the irrational basis of which was meanwhile the object of much discussion in the 1930s. In 1933, for instance, Walter Benjamin wrote *Doctrine of the Similar* and *On the Mimetic Faculty*, in which he touches a set of questions that Jousse, almost contemporaneously, placed at the centre of his own anthropological approach, including the link between primary gestures in dance and cosmic movements, the Wundtian problem of the gestural origins of language, the question of animal camouflage and the mimetic power of infants (Benjamin [1933a] e [1933b]). At the same time, research on the physiological foundations of the psyche was translated into the explosion of reflexology, culminating in the English translation of Vladimir M. Bechterev's volume *General Principles of Human Reflexology* (1932), while in France the legacy of Théodule Ribot and especially Pierre Janet had a strong impact (for example on Henri Delacroix and his ideas of automatic imitation as «the body's reflected and undefined plasticity»,

[14] In the first decade of the nineteenth century, many thinkers discussed the relationship between technique and expression, from Wilhelm Wundt – who believed that technique (and especially language) was, on the contrary, a by-product of expression (since initially labial gestures had been mere expressions) – to Ludwig Klages, who saw the expression as a metaphor of the action. Subsequently, Helmuth Plessner absorbed this dialectic within the broad idea of «human eccentricity», a condition of existence consisting in being at the same time *a* body, *in* a body and *outside* a body, with the consequent split of each gesture into technique and affect.

Delacroix [1927]: 56). At the end of the nineteenth century, Janet had explored «the inferior states of consciousness» in their ability to highlight the body's automatisms, and shed new light on the phenomenon of hysteria (Janet [1889]). Roger Caillois, an anthropologist from an entirely different tradition, had begun to study animal mimicry from an anti-evolutionist perspective (Caillois [1934]), referring specifically to Janet's terminology in defining the state of the animal in the moment it occurs: *psychasthenia* (and not the survival instinct), a psychological condition of abandon, the abandon of the Self as it strays into the other, an ambiguous pleasure in fusion based on cellular mimesis with environmental conditions.

Osmosis between the body and the environment, as well as the coincidence of somatic changes and affectivity, exhibited so strikingly in animals, became a point of reference for the gestural theories of Jousse and Eisenstein, both of which were developed in relation to cinema. Jousse elaborated his own anthropological approach to the gesture in around a thousand lessons, held at l'École d'Anthropologie at the Sorbonne and l'École des Hautes Études, between 1931 and 1957[15]. His courses had a widespread impact, defining the mood of that historical moment even without ever proving disruptive, instead circulating a form of knowledge that continued to re-emerge even decades later and in the most disparate of contexts[16]. Jousse's thought was constructed around a neologism that sought to appropriate a particular form of logic, halfway between imitation and animal mimicry, that informed human gestures. He defined *mimism* as man's ability to understand the world somatically, assimilating her/himself through gestures, a primordial tool that was the subject of his most famous sentence: «in the beginning was the gesture», a testament, moreover, to an unconfessed debt to d'Udine[17].

The gesture remained the only tool through which man could capture and participate in the universe's extremely intricate network of relationships. It provides a form of somatic[18] intelligence that advances in phases and makes use of all the body's organs, because, as Pierre Janet – Jousse's teacher at the Collège de France – wrote, «we think as much with our hands as we do with the brain, we think with the stomach, we think with the whole body»[19]. The skeleton serves only to «attach» gestures, Jousse writes, while muscles and nerves are directly connected to the imitative process, since their fibres respond immediately to environmental triggers, reflecting them and initiating the mimismologic process. This first neuromimetic phase constituted a reflexological reconsideration of the late-nineteenth century question of muscular sense, adopting comparisons to the animal kingdom, where this process is most fully visible. While the animal does not go beyond this phase, humans begin a second one, *rejeu* (replay), which consists in a remodelling of the reflex as a gesture, a tool through which they reproduce the environment in the way they discern it. Only in the third phase, *formulism*, are gestures encod-

[15] His lectures have been recently digitalized by the Association Marcel Jousse, Paris (Jousse [2002]). At the time they were professionally shorthanded, but Jousse never wrote them in full before presenting them to students. Jousse (1969) provides a collection of his ideas, assembled by his pupils.

[16] Jousse was the main reference for artists such as Jacques Lecoq, but he also inspired theorists. In Agamben (1991) many of Jousse's arguments resurface, including the juxtaposition between gesture and image, and the idea of modernity as a loss of gesture, that is partially redeemed by cinema.

[17] Considering his familiarity with the Gospel, Jousse may have autonomously adapted the verse «In the beginning was the word» – though D'Udine had certainly done this some decades earlier (1910: 86), reformulating Hans von Bülow's postulate ("In the beginning was the rhythm"), making it, as d'Udine said, more precise.

[18] Throughout this essay, I prefer to define this form of thought as *somatic* rather than *bodily*, to foreground the body not as an object seen from outside, but in the proprioception of its owner, living through it as a mixture of sensations and movements, both of which are central factors in gesturality. Doing so, I follow theoretical work from the past fifty years in the field of dance, sport sciences and psychotherapy. See Eddy (2009).

[19] Jousse quotes this phrase often, for instance Jousse (1925): 39.

ed and fossilized, losing their vital element and becoming simply a code of communication or a rhetorical tool. Jousse writes off this degenerative moment rather hastily, concentrating instead on *rejeu* as a knowledge of forms. Intercepted and extracted from the environment, these forms can nevertheless also come back to it: with the creation of the instrument – for the first time defined here as an *extension of a human gesture* – man deposits them *within* matter.

One of these instruments, the most important one is cinema. Cinema does not simply extend any gesture, but rather the quintessence of the gesture, that is, its mismological capacity; hence it becomes anthropology's principle tool[20]. Cinema is an intelligent machine that thinks by miming. Humans – congenitally capable of miming – have transmitted to film their gestural abilities, or perhaps invented an "imitative" technique that prolongs them, therefore simultaneously making visible (and studiable) the process that most fundamentally characterizes themselves[21]. Jousse insists on the parallelism between cinema and the human body: the two «machines» function in the same way, since man is «a plastic film camera that records and assembles gestures with his own body, his own hands, his own ocular musculature»[22], and cinema is the mechanical translation of this chain of impressions and replays, a means of prolonging it but also of becoming a part of it («I ask of the cinematic technique to provide me with an extension of my gesture – *nota bene*, an extension»[23]). Cinema's gesture begins with an impression of the film that is traced out by the energetic waves of the real, in the way of our nerve receptors, and it ends with montage, a tool of replay, of the creation of chains of affinity in which the «environment's gesticulations» are connected to those of the individual[24]. Cinema provides the possibility to observe the creation of these links: slowing down or accelerating the flow of film reveals how a gesture passes from one being to another. «Today», Jousse writes, «thanks to technical and scientific tricks that the screen allows, cinema lets us witness that fluid passage from one being to another, that gradual and imperceptible fusion of a man and an object, through which he realizes and 'makes successive' his own actions and gestures»[25].

The nodes that cinema creates – the subtle links between the animate and the inanimate, the individual and the environment – also inspired film theory at that time, with which Jousse entered into close dialogue, even if only indirectly[26]. The most animistic inflection of Jousse's discourses can be found, with incredible precision, in the work of Jean Epstein. Epstein considered the use of the camera as a rational technique, a «metal brain» that thinks through mechanical synapses, thanks to the complexity of its inner workings[27]. Gestures tied together on screen create connections and develop thoughts, especially when observed at twice the speed (the «trick» that Jousse also mentions); this makes them visible even when formed by plants or stones. Their transit remixes and radically re-articulates the scale of the various kingdoms, allowing us to observe the movement of forms between the organic and the inorganic, to see continual transfusions of gestures that in the end are deposited, in Epstein's work too, in objects and tools[28].

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[20] «With cinema, the anthropology of gesture has found its instrument», see Jousse's 26 March 1936 lecture at Sorbonne (Jousse [2002]: 269) (my transl.).

[21] Jousse dealt with cinema in many of his courses, for instance: *L'analyse cinématographique du mimisme* (12 December 1932), *Les mimogrammes cinématographiques* (1 April 1935), *L'anthropologie et le cinématographe* (8 April 1935), *Le livre cinématographique et la science* (19 March 1945), *L'anthropologie du mimisme et le cinéma* (6 March 1952). See Jousse (2002).

[22] See Jousse's 5 November 1934 lecture at l'École d'Anthropologie (Jousse [2002]: 8).

[23] See Jousse's 26 March 1936 lecture at the Sorbonne (Jousse [2002]: 271).

[24] See Jousse's 1 April 1935 lecture at l'École d'Anthropologie (Jousse [2002]: 357).

[25] Jousse (1969): 125.

[26] Jousse's lectures were echoed in national newspapers, where his approach to cinema is often reported (see for instance "Le Monde", 24 November 1928); however, cinema theorists of his time do not mention him.

[27] Epstein (1946): 309.

[28] Epstein mentions the laborer's gesture of screwing-in and defines it as «moving», because he perceives it as

Though Epstein's anti-physiognomic and anti-psychological notion of the gesture is unique in film theory, the important questions that Jousse raises also return in Eisenstein's last work. In the essay *Opredeliaiushchii zhest* [The Underlying Gesture] (1939-1940), as yet untranslated but summarized by Anna Hedberg Olenina and Irina Schulzki (2018), Eisenstein drafts a general theory of the gesture as a fundamental component of pre-logical thought, a primitive force that structures the work of art and models the aesthetic experience of its user. He argues that the film image takes root in the director's psycho-physiological gesture, in one of his/her specific expressive movements that constitutes the somatic embryo of the film, from which its chain of images and sounds emerges and is broadcast. This perspective is coherent with Jousse's vision of the gesture as a bodily intuition, and the impression is further confirmed both in an essay written one month before the director's death (Eisenstein [1948]) and in a passage of the unfinished volume *Metod*, in which his early reflections on expressive movement are connected to the gestures of film direction[29].

In *Metod*, Eisenstein interprets «the system of the creation of images as a superior stage of expressive movement, and of its manifestation»[30]. Human gestures find their ideal continuation in the creative act, which gives form to the work, where giving form itself (in the case of cinema, to images) consists in a an out-pouring of body matrices that are at the same time manipulative and expressive[31].

This point is made more clearly in Eisenstein (1948), which presents the concepts of *mise-en-jeu* and *mise-en-geste* (literally, «putting into play» and «putting into gesture»). Both of these correspond to Jousseian equivalents; however, these terms do not refer to the abstract operations of the film camera but rather to the concrete work of direction. Constructing a scene implies making a series of directorial decisions that are consistent with the initial gestural matrix, but translated into a system of relationships between bodies and objects within a specific spatial orientation. This conversion of a subterranean motif into structures of images corresponds to *mise-en-jeu*: affect, conflictual themes, forms of movement, all these become concrete in the specific traits of the scene («embodiment in action») (Eisentein [2014]). In a way, *mise-en-jeu* re-introduces a corporeal intuition and distributes it among various environmental factors, and in this sense it very much resembles Jousse's concept of «rejeu». For Eisenstein, the phase of *mise-en-geste*, on the other hand, refers exclusively to the character, to their choices of movements and positions. Here, on the contrary, the specific configuration of the scene must be absorbed and reinstated in the body of the actor, whose gestures are therefore not motivated on a narrative or psychological level but, if anything, justified by rational «cover stories», not unlike those that hypnotized people use to give meanings to their manipulated actions. In another contribution, Eisenstein argues even more radically for a need for the actor's «auto-hypnosis of the nerves»[32], as though the ultimate objective of his/her work was something similar to mimicry, at a neuro-mimetic level[33]. Moreover, as well as recalling the inferior states of consciousness (hypnosis) that, via Janet, were of great interest to Jousse, he also makes recourse to the phenomenon of animal mimicry in order to illustrate the continued interchange, in film itself, of gestural material between bodies and environments. Following d'Udine, whom he cites explicit-

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the endpoint of a chain of transmissions (Epstein [1921]: 100).

[29] This essay from the unfinished book *Metod* (Eisenstein [2002]) has been translated into Italian by A. Cervini, and included in Eisenstein (2009): 91-119.

[30] See Eisenstein (2009): 93 (my transl.).

[31] Pietro Montani asserts that «the integral dramaturgy of the filmic form finds its germinal cell precisely in the biomechanics, in the intrinsically "expressive" movement of the anthropologically qualified *bios*». See Eisenstein (2009): 9 (my transl.).

[32] Eisenstein (2009): 49.

[33] Cf., however, the circularity of this concept in Eisenstein's *Montage 1937*, in which he presents gesture as the concentration of *mise-en-scène* in a person, and *mise-en-scène* as gesture exploding into a spatial sequence (Eisenstein [1994]: 21).

ly[34], Eisenstein interprets colour as the translation of a gesture, and compares the creation of a film as a chromatic surface to the corporeal elaboration of colour by the chameleon, which oscillates continually «from the objective colouring of its surroundings to its objective recreation»[35].

Through the work of Jousse and Eisenstein, cinema therefore became the principal space for interchanges between body and its surroundings; its anthropological dimension, as a medium that allows man to confront his/her own way of understanding the world somatically, therefore emerged fully. It is not so much a reinforced eye, but a body that imitates and replays, a body that is both mechanical and biological thus bringing together together the logic of machines and animal behaviour, legitimating the movement from organic to inorganic, and ultimately presenting gesture as a vital form that can animate the inanimate.

3. CODA: EXUDATION AND CRYSTALLIZATION

This brings us to the renowned perspective of the French palaeontologist André Leroi-Gourhan, who reinstates an emphasis on technique in the strictest sense. In the pages of his writings, he clarifies the transitive hypothesis, though in part deprived of its complexity and audacity, since the idea of gesture that he adapts is more traditionally operative. Already in work written in the forties, the palaeontologist had defined the tool as «the exteriorization of an efficient gesture»[36] as «an interaction of matter with the means to transform it»[37]; in the fifties, he began to formulate the concept of the operational sequence (*chaîne opératoire*), which would then become central to his most important contribution (Leroi-Gourhan [1964-1965]). In this work, technique is defined as the interweaving of «gestures and tools organized in sequence by a true syntax», and this syntax of actions is, for the most part, devoid of those irrational components that had characterized previous definitions of technique, in the thirties. What therefore emerges here is the difference between humans and animals: animals use their own bodies, or body parts, as tools; man learns to separate the support and the gesture, increasingly able to transfer the latter into an object that is separate from the body. «The tool», as Leroi-Gourhan writes, is in some way «"exuded" by humans in the course of their evolution», thus departing from an animal condition of total incorporation, as for the crab, whose «claws and jaws are all of a piece with the operating program through which the animal's food acquisition behavior is expressed»[38]. In the passage from primitive tools to modern techniques, the key point is that the gestures of which they are descendants are no longer recognizable. While for machines of the first phase of industrialization they were still intuitable, by the information revolution (and in digital culture even more so) the gesture is obscured within an operative matrix that is increasingly abstract and sophisticated. With the creation of artificial memory, the operative programme is entirely externalized. As such, new machines become autonomous and therefore are denied the status of prosthesis (something that beforehand was recalled constantly, in the memory of a prolonged gesture). Rather they are effectively promoted to the level of thinking bodies, as «something like a real muscular system, controlled by a real nervous system, performing complex operating programs through its connections with something like a real sensory-motor brain»[39]. This conclusion appears coherent with Jousse's and Eisenstein's anthropo-bio-aesthetics, as the proximity between the technical object and the animal world is made explicit and noticeable. «A biologist», Leroi-Gourhan writes, «will find it hard to resist comparing the mechanisms of animals whose evolution is already completed with

[34] We find a direct quotation from d'Udine in Eisenstein (1949): 150.
[35] Eisenstein (2014), digital edition.
[36] See Leroi-Gourhan (1943): 319.
[37] See Leroi-Gourhan (1945): 333.
[38] See Leroi-Gourhan (1965): 239.
[39] See Leroi-Gourhan (1965): 248.

these organisms which, in the last analysis, constitute a parallel living world»[40]. But in the 1960s, with the explosion of mediatization, sensibilities changed. In this parallel world of tools that were no longer dependent on humans, they began to be perceived as threatening and conflictual. This is clear immediately, for instance, reading the observations – which even then were somewhat dated – that the palaeontologist made about cinema, and more generally about audio-visual media. As a medium that demands that we listen and watch movement, cinema can be accused of producing passive forms of perception, penalizing man's imagination and and thinking in his place, rather than allowing him to think freely. «Audiovisual techniques really seem to represent a new stage of human development»[41], he writes, hypothesizing an anthropological mutation: one probably caused by a misunderstanding of the idea of the transition of living components to objects, but considered rather in terms of their theft underwent by man.

In order to find less anxious models that maintain the enthusiasm of previous historical moments, we can look to the work of Gilbert Simondon. Here, I limit myself to evoking his well-known rehabilitation of the technical object. At the end of the fifties, Simondon reinserted technique into the circuit of human action, moreover emphasizing the gesture as a component that remains connected to the machine and creating a link between man and nature – man's nature that goes beyond pure rationality and ability to operate, to include somatic and affective thought. His work begins with these famous words:

> *Culture has constituted itself as a defense system against technics; yet this defense presents itself as a defense of man, and presumes that technical objects do not contain a human reality within them […]. The opposition drawn between culture and technics, between man and machine, is false and has no foundation […]. Behind a facile humanism, it masks a reality rich in human efforts and natural forces, and which constitutes a world of technical objects as mediators between man and nature.*[42]

The human reality that exists within machines – defined as «a human gesture fixed and crystallized into working structures»[43] – consists in the *expression* of a certain relationship between man and the world, which makes the object beautiful. That beauty, however, is naturally not the result of design, but dependent on the perception of a connection to the real that one is able to rediscover. «It is never the object strictly speaking that is beautiful», Simondon writes, «it is the encounter – which takes place about the object – between a real aspect of the world and a human gesture» (Simondon 1958) (Simondon [2017]: 202). Cinema returns within this discourse (even though the part of his work dedicated to film is incomplete), and in particular it inspires concepts once again, starting with the definition of film as «a psycho-social reality» that generates interindividual relationships and establishes a new regime in the relationship between man and himself. Simondon writes that cinema represents «the return of man's reality to man's knowledge, and of the gesture to consciousness of the gesture»[44]. We are tempted to perceive an echo of the transitive theory of gesture in this sentence, even though it is difficult to grasp exactly what the philosopher had in mind. This is especially true in a project constructed on such a complex structure, consisting of «Cinema and the Past; Cinema and the Present; Cinema Itself; Cinema and the Future» (of these only the first part was written). In «Cinema and the Past», Simondon invokes various technical gestures made by the machines of moving images, and attributes them to the sphere of magic. He lingers on the enlargement of forms that were made to appear for projective means, and concludes that cinema took the place of Greek thaumaturgy. His argument is left incomplete, but what we can extract from his suggestions, like from the theories of the technical gesture in gen-

[40] See Leroi-Gourhan (1965): 251.
[41] See Leroi-Gourhan (1965): 213.
[42] Simondon (1958): 15.
[43] Simondon (1958): 18.
[44] Simondon (2014): 308 (my transl.).

eral, is the need for a systematic reconsideration of cinema's gestural dimension, that the digital era seems to have rediscovered and enhanced in every respect. The gestures represented in films – which remodel and often re-invent «natural» ones, creating techniques of the body – are in turn the result of a filmic gesture, consisting in an interpretation of what was inscribed in the camera in the moment of its invention. The director can decide whether to support or subvert the implicit «prescriptions of use» of his tool, but his way of generating images must always be contrasted with the indications inscribed in the machine. By following the close interweaving of these three forms – the *cinematographic gesture,* the *filmic gesture* and the *filmed gesture*, it may be possible to reconsider the way in which the main medium of the twentieth century became grafted, from its very origins, onto our bodies.

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Sugli effetti di ritorno della nostra creatività tecnica

Elisa Binda

Abstract. The essay aims to reflect on the question about how we become ourselves finding an answer in our species-specific technical creativity. By using the reflexions of Gilbert Simondon, Lambros Malafouris and Don Ihde, I want to suggest that through the modifications imported to the environment by virtue of technical mediations, human beings are in the condition of acting upon themselves. Our very technical mediations reorganize our cognitive and sensitive experience of the world.

Keywords. Simondon, Techno-Aesthetics, creativity, transduction, Material Engagement Theory, Malafouris, Ihde.

In un breve scritto, datato 8 settembre 1953, il filosofo francese Gilbert Simondon ferma sulla carta alcune suggestive riflessioni: tratteggia immagini di case alte, un dedalo di pontili, un camion carico di operai, la luce che li illumina. Descrive il granito che brilla, lo scisto che si sfalda, un ponte che si inarca da una collina all'altra. Intorno a lui, «in armonia», convivono elementi naturali e artificiali. Infine, conclude: «noi siamo degli esseri naturali che hanno un debito di tecnica [τέχνη] per pagare la natura [Φύσις] che è in noi; il germe di natura [Φύσις] che è in noi si deve dilatare in tecnica [τέχνη] intorno a noi» (Simondon [2014]: 24). Secondo Simondon il legame tra essere umano e tecnica è dunque così serrato da assumere la forma di un *debito*; siamo spinti, costretti, a manifestare tecnicamente, al di fuori di noi, la nostra natura di essere umani. È in questo movimento dall'interno verso l'esterno che si è sviluppato il nostro processo evolutivo il quale ci ha condotto, nel succedersi delle ere, a quella che è definita oggi come *Antropocene*, dove l'azione umana condiziona in una forma profondamente inedita gli aspetti strutturali, climatici, ambientali, chimici e fisici del mondo in cui si propaga.

In questo contributo intendo considerare in particolare il movimento opposto - e conseguente - a quello dell'esternalizzazione. La specie cui apparteniamo, infatti, è tale non soltanto per la sua tendenza a prolungarsi esternamente in artefatti, ma perché sussiste un

movimento di ritorno, di *retro-azione* che la modifica e la modella, tanto a livello cognitivo quanto sensibile. Siamo diventati noi stessi manipolando i nostri ambienti di vita. Secondo questa prospettiva viene a cadere non soltanto la dicotomia tra natura e cultura (intesa qui come insieme in cui confluiscono tutti i prodotti della creatività umana), ma anche quella tra interno ed esterno. Intendo dunque far convergere su questo tema le riflessioni di alcuni studiosi, filosofi e non, più e meno recenti.

1. ESTENDERSI

È ormai entrata a far parte del senso comune l'idea che i nostri dispositivi siano una sorta di prolungamento di ciò che siamo; riconosciamo come il nostro modo di incontrare il mondo sia costantemente mediato da ciò che teniamo a portata di polpastrelli o che addirittura indossiamo. Queste esperienze possono far riferimento a un complesso di idee di stampo scientifico, filosofico, artistico, che si arricchisce sempre di più e che cerca di rendere conto di come i nostri processi cognitivi, affettivi, emotivi, individuali e collettivi, si originino e si estendano in ambienti sempre più tecnicizzati. Sul concetto di esternalizzazione inteso come tratto specie-specifico si è costruito il lavoro, ormai classico, del paletnologo André Leroi-Gourhan. I suoi studi lo portano a ravvisare una completa coincidenza tra il processo di ominazione e quello di tecnogenesi, tanto da affermare che «il solo criterio d'umanità *biologicamente* innegabile è la presenza dello strumento» (Leroi-Gourhan [1957]: 63). È qualcosa di apparentemente "innaturale", di artificiale, ma che possiede in realtà un carattere radicalmente *biotico*, a permettere di identificare la forma di vita umana. Leroi-Gourhan evidenzia come la strada evolutiva percorsa dalla nostra specie si sia sviluppata al di fuori delle coordinate strettamente corporee: «tutta l'evoluzione umana contribuisce a porre fuori dell'uomo ciò che, nel resto del mondo animale, corrisponde all'adattamento specifico» (Leroi-Gourhan [1964]: 277).

Gli esseri umani non sono semplicemente delle creature "naturali" o "biologiche" e non sono nemmeno soltanto il prodotto di ciò che definiamo "cultura". Nell'annullamento di questa presunta dicotomia – nel venir meno di polarizzazioni imposte, meramente concettuali, tra «"nature" and "culture" or "mind" and "matter"» – risiede il nostro «mode of being» che, secondo le parole del filosofo della tecnica Don Ihde, può essere descritto come un «continuum of human-prostheses inter-relations» (Ihde-Malafouris [2019]: 196). Questo riferimento al concetto di protesi permette di sottolineare come lo stretto rapporto tra umano e tecnica sia profondamente iscritto nella sua *aisthesis*, nella sua peculiare sensibilità, in via di principio connotata da specifiche qualità – prima tra tutte la sua illimitata apertura allo stimolo – e capace di prestazioni che la predispongono a prolungarsi in artefatti inorganici (Montani [2014]: 21 sgg.). A questo proposito, Bernard Stiegler individua nella nostra specie una "originaria tecnicità", riconoscendo le protesi non più come «un simple prolongement du corps humain», ma, piuttosto, come ciò che costituisce «ce corps en tant que "humain"» (Stiegler [1994]: 162). L'evoluzione delle protesi, attraverso le quali la nostra specie ha costruito i suoi habitat, ha irrimediabilmente condizionato il modo di procedere del nostro arco evolutivo; il progresso del non vivente è interconnesso a quello del vivente: «ciò che rimane delle attività tecniche è quindi la sola testimonianza, accanto ai resti dello scheletro, dell'aspetto puramente umano dell'evoluzione. [...]. In altri termini si può considerare uno sviluppo parallelo e sincrono degli uomini e dei loro prodotti» (Leroi-Gourhan [1943]: 19).

È Simondon a trovare un termine per indicare efficacemente come la nostra sensibilità sia da sempre tecnicamente alterata. In una lettera scritta, ma mai inviata, a Jacques Derrida nel 1982, conia il concetto di *tecno-estetica* e ne descrive i diversi possibili aspetti. La tecno-estetica indica, innanzitutto, la dimensione fondamentalmente attiva della nostra esperienza, quella che «non ha come categoria principale la contemplazione» (Simondon [1992]: 34). Gli esempi messi in gio-

co da Simondon, i quali spaziano dal dipinto della Gioconda al martello, passando per chiavi inglesi e strumenti musicali, mostrano come nel nostro rapporto quotidiano con il mondo la componente pratica, la quale coinvolge in prima istanza il nostro complesso senso-motorio[1], sia imprescindibile. Il nostro ambiente circostante viene così attivamente riconfigurato attraverso le nostre protesi tecniche, le quali ci permettono di cogliere nuovi modi di orientarci nell'ambiente. Simondon sottolinea inoltre la presenza di un «piacere» provocato dall'interazione con l'oggetto, il quale si può cogliere, ad esempio, nel forgiare o nel lavorare il legno, in cui «il corpo dell'operatore dona e riceve» (Simondon [1992]: 34). Il corpo stesso diviene in questo senso un'interfaccia, un *medium*, performativamente coinvolto nel suo commercio con le cose che lo circondano. Ma è nella parte conclusiva della lettera che Simondon giunge a definire l'aspetto più radicale della tecno-estetica, dal quale si può ricavare «un altro senso, *più primitivo, più pienamente corporeo*»[2]: «Il sentimento tecno-estetico sembra essere più originario rispetto al solo sentimento estetico o all'aspetto tecnico considerato semplicemente sotto l'angolazione della sua funzionalità, che è penalizzante» (Simondon [1992]: 46).

Con queste parole il filosofo giunge ad affermare con chiarezza quanto il nostro modo di nascere nel mondo e di farne esperienza sia già di per sé tecno-estetico. Ciò significa che la tecnica non può essere intesa come qualcosa che si aggiunge solo secondariamente a un presunto e più primitivo incontro dell'essere umano con il suo habitat; non vi è un sovrapporsi successivo della tecnica a un rapporto con l'ambiente semplicemente sensibile, corporeo. La sensibilità tecno-estetica dell'umano è quindi tale perché è più originaria rispetto al solo sentimento estetico (che potremmo definire il polo "naturale" della dicotomia natura-cultura) o al semplice aspetto tecnico (il polo "culturale"). La nostra *aisthesis* è da sempre innervata tecnicamente. Utilizzando le parole di Merleau-Ponty, uno dei maestri di Simondon, si può così riconoscere come «il nostro corpo è sempre altro da ciò che è […] radicato nella natura nel medesimo istante in cui si trasforma mediante la cultura, mai chiuso in sé e mai superato» (Merleau-Ponty [1945]: 271).

L'umano è, secondo Simondon, in grado di incontrare la «realtà data» dell'ambiente in cui si trova, di organizzarla in «nuove forme», grazie alla sua sensibilità tecno-estetica e a una strumentazione cognitiva altamente plastica e creativa (Simondon [1958]: 56). Questa produzione di «nuove forme», che in misura esponenziale è connessa alle nostre mediazioni tecniche, ha, tra le sue notevoli conseguenze, quella di dare origine a ciò che Simondon definisce un *ambiente associato*, quel tipo di ambiente inedito che l'oggetto tecnico istituisce all'interno dell'ambiente nel quale si installa. L'ambiente associato è un ambiente rinnovato, misto, perché composto da elementi naturali e artificiali, condizionato dalla presenza di un oggetto tecnico e a sua volta in grado di condizionarne l'evoluzione. Quando Simondon formula questa nozione, ci troviamo nel 1958. Gli esempi di ambienti associati che il filosofo ha sotto i suoi occhi, e cui fa riferimento, sono le ferrovie, le strade, le reti di comunicazione televisiva e la radio. Basti ricordare che non era ancora giunta la rivoluzione di Internet. Ma oggi?

Oggi, con l'avvento delle tecnologie digitali, di tutti i dispositivi con cui ci interfacciamo quotidianamente, degli schermi che abitano i nostri spazi, della *Augmented Reality* e delle *Wearable Technologies*, siamo totalmente immersi in vasti ambienti associati, sempre più complessi. L'intreccio serrato, di cui parlava Simondon, tra aspet-

[1] La sensibilità tecno-estetica si può riferire così a quel tipo di apprendimento che Francesco Antinucci definisce di tipo senso-motorio, «il sistema cognitivo più fondamentale e più antico che abbiamo», il quale sfrutta «il costante flusso interattivo con l'ambiente prossimale» (Antinucci [2011]: 23).

[2] Ritengo molto significativo che nel momento in cui Simondon descrive il significato più radicale della nozione di tecno-estetica, introduca il termine greco *aisthesis;* in questo modo riconduce la parola "estetica" alla sua origine etimologica la quale indica la sensibilità, la sensazione. L'estetica non è riferibile soltanto a una teoria dell'arte, per quanto, nel corso della lettera, Simondon indaghi brevemente anche questo aspetto.

ti naturali e tecnici, in cui ci troviamo a vivere, può essere definito come un chiasma tra ambienti mediali che sono anche media ambientali (Montani [2015]: 79). È in questo chiasma che si inscrive la storia evolutiva della nostra specie.

Alla base di queste considerazioni vi è la convinzione secondo la quale un individuo non è mai pensabile senza il suo ambiente. A questo rapporto Simondon ha dedicato la sua monumentale tesi di Dottorato, nella quale si impegna a mostrare come, grazie a questa relazione, tanto l'individuo quanto l'ambiente si modifichino mutualmente. Il filosofo chiama questa modificazione reciproca *individuazione*. Con questo termine intende indicare il processo attraverso cui si origina l'individuo, ma soprattutto vuole sostenere come esso non possa mai essere considerato un'entità definita, determinata: l'individuo è sempre aperto a continui processi di individuazione, potenzialmente infiniti, mai compiuti. La possibilità che questo processo sia indefinitamente sollecitato è data dal fatto che l'individuo non può mai esistere isolatamente: innanzitutto, «ciò che l'individuazione fa apparire non è solo l'individuo, bensì la coppia individuo-ambiente» (Simondon [2005]: 34). Detto altrimenti, un individuo è tale soltanto perché è implicato in quella serie di rapporti, i quali si instaurano nel momento stesso in cui viene a generarsi, che intrattiene con il suo circostante: «le effettive proprietà di un individuo risiedono a livello della sua genesi e, per questa stessa ragione, a livello della sua relazione con gli altri esseri poiché se l'individuo è l'essere in grado di continuare sempre la sua genesi, è nella relazione con gli altri esseri che risiede il suddetto dinamismo genetico» (Simondon [2005]: 124).

Simondon, per far emergere il carattere costitutivo di queste relazioni, prende a prestito un concetto dalla fisica, ovvero quello di trasduzione (*transduction*). Attraverso questo termine il filosofo intende rendere evidente che la relazione non può mai essere intesa come ciò che si interpone tra elementi già individuati; la relazione è, piuttosto, condizione necessaria alla loro costituzione. Secondo Simondon «individuazione e relazione sono inseparabili; […] non vi è limite tra l'individuo e la sua attività di relazione» (Simondon [2005]: 170). Siamo esseri *di* relazione, più che esseri *in* relazione. La relazione è, in altri termini, occasione di individuazione. Per la specie umana, in modo particolare, questa occasione è originata dall'interfacciarsi costante con ciò che produce: «l'individuo si individua», si modifica, «nella misura in cui percepisce altri esseri, agisce o fabbrica, è parte del sistema che comprende la sua realtà individuale e gli oggetti che percepisce o costruisce» (Simondon [2005]: 333).

Queste riflessioni di Simondon ben si accordano con le posizioni teoriche assunte da Don Ihde e Lambros Malafouris. I due autori riconoscono come la nostra specie, secondo modalità differenti rispetto alle altre specie animali, «have been altering their paths of development by creating new material forms and by opening up to new possibilities of material engagement». Ihde e Malafouris aggiungono che «we become constituted through making and using technologies that shape our minds and extend our bodies» (Ihde, Malafouris [2018]: 195). La nostra specie è capace di creare nuove modalità di interazione con l'ambiente che la circonda proprio grazie al ricorso ad artefatti, in particolare tecnologici, e questa capacità genera effetti retroattivi sulle sue strumentazioni cognitive e sensibili. È proprio su tale movimento di ritorno che questo contributo intende ora focalizzarsi.

2. EFFETTO FEEDBACK

In un testo recente, scritto a quattro mani, Ihde e Malafouris hanno indagato il peculiare tipo di rapporto che lega l'essere umano ai suoi artefatti, ciascuno a partire dalle loro prospettive di ricerca: Malafouris da studioso di archeologia cognitiva e promotore della *Material Engagement Theory* (MET), e Ihde da filosofo della tecnica di matrice post-fenomenologica. Formulando una *Material Engagement Theory*, Malafouris intende riconsiderare le modalità attraverso cui va intesa la relazione tra umano e materia. Attraverso l'idea di un coinvolgimento materiale, e riferen-

dosi, tra le altre, anche alle riflessioni di Leroi-Gourhan e di Stiegler, l'archeologo cognitivo descrive la nostra evoluzione come intimamente connessa con gli oggetti che manipoliamo e che produciamo. La nostra struttura cognitiva e sensibile è frutto della nostra evoluzione biologica tanto quanto è prodotta e costantemente riconfigurata da noi stessi in quanto esseri originariamente tecnici. Il presupposto della *MET* è che la nostra cultura materiale non possa essere intesa come semplice sfondo, come contesto nel quale siamo immersi, in quanto «things mediate, actively shape, and constitute our ways of being in the world and of making sense of the world. Things also bring people together and provide channels of interaction. Things envelop our minds; they become us» (Malafouris [2013]: 44). Ciò avviene in forza di ciò che Malafouris definisce una *metaplasticità* dell'essere umano; il fatto che «we have a plastic mind which is embedded and inextricably enfolded with a plastic culture – might well be the locus of human uniqueness *par excellence*». È proprio questa caratteristica della nostra specie a renderla «in grado di accogliere l'impatto della tecnologia nella sua bio-genesi» (Parisi [2015]: 143).

Sullo sfondo di queste riflessioni sono presenti le teorie dell'*Embodiment* e dell'*Extended Mind*. Anche grazie alle conquiste teoriche delle neuroscienze, supportate da tecniche di *Brain Imaging* sempre più affinate, si è messa in crisi la convinzione secondo cui il cervello-encefalo basti a spiegare l'intera complessità dei nostri processi cognitivi e affettivo-emotivi. La presenza pervasiva di una tecnologia intimamente connessa alla nostra vita rende quanto più urgente riflettere sulla «questione della frontiera tra corpo e oggetto, e quella tra corpo e cervello» (Bruner et al. [2016]: 31). Al corpo è opportuno riconoscere un'importanza fondamentale per la nostra cognizione; esso è elemento attivo, ponte delle relazioni tra il nostro sistema nervoso e l'ambiente esterno. Si utilizza dunque il concetto di *incorporazione* (*Embodiment*), per spiegare come nella nostra esperienza cognitiva sia necessariamente integrata quella corporea, senso-motoria; come scrive Malafouris, «the mind is to be understood as embodied, indeed as extended beyond the body, and beyond the individual, and as interacting with the things of the material world» (Malafouris [2013]: xi). Il termine "things" viene qui usato nel suo senso più ampio e indica «material forms and techniques – it refers to the materiality of mundane objects, tool and artefacts as much as it refers to modern technologies and new form of digital culture» (Ihde, Malafouris [2018]: 196). A una *Embodied Mind* si correla così una *Extended Mind*: l'ambiente, che per la nostra specie, come abbiamo visto, «significa innanzitutto cultura e, in particolare, cultura materiale, tecnica», diventa una vera e propria «estensione extra-neurale del nostro sistema nervoso» (Bruner et al. [2016]: 32)[3].

Come i contributi che compongono questo numero di *Aisthesis*, così anche Ihde e Malafouris intendono riflettere su come diventiamo noi stessi. Non è il semplice utilizzo di strumenti a fini di adattamento a identificarci come specie. Numerosi studi attestano l'impiego, talvolta complesso, di utensili nelle altre specie animali. L'accento va piuttosto posto sul tipo di relazione che ingaggiamo con gli oggetti: «humans are self-conscious fabricators that become (ontogenetically and phylogenetically) through their creative engagement with the material world» (Ihde, Malafouris [2018]: 200). Non si tratta dunque di una semplice interazione, ma di ciò che Malafouris e Ihde propongono di definire, con un riferimento alla filosofia di John Dewey e alla teoria della *Niche Construction*[4], una *transaction*. Con questo termi-

[3] Come scrive Andy Clark, uno dei massimi esponenti della teoria della *Extended Mind*, possiamo distinguere «two distinct, but deeply interanimated, ways in which biological cognition leans on cultural and environmental structures. One way involves a developmental loop, in which exposure to external symbols adds something to the brain's own inner toolkit. The other involves a persisting loop, in which ongoing neural activity becomes geared to the presence of specific external tools and media» (Clark [2003]: 78).

[4] Anche la posizione filosofica di Simondon è avvicinabile alle recenti teorie della *Niche Construction,* gruppo di ricerca composto, tra gli altri da F. J. Odling-Smee, K. N. Laland e M. W. Feldman. Si tratta di riflessioni che considerano ogni forma di vita come risultato di una co-

ne sottolineano la necessità di abbandonare qualsiasi prospettiva di ricerca che consideri individuo e ambiente come pre-esistenti alla loro messa in relazione. Appaiono immediatamente evidenti le somiglianze con il concetto di trasduzione elaborato da Simondon: soltanto riconoscendo il carattere non semplicemente interattivo della relazione con il nostro mondo materiale si potranno cogliere gli esiti trasformativi che essa produce sugli elementi che pone in rapporto. Perciò, se, grazie alle riflessioni fino a qui condotte, abbiamo colto come il nostro tratto specie-specifico sia da individuare nella nostra tendenza all'"esternalizzazione", nel particolare tipo di rapporto che intratteniamo con gli artefatti, è ancor più opportuno comprendere che a questo consegue un movimento di "internalizzazione" il quale genera potenti effetti retroattivi che, in un circolo di *feed-back*, dall'esterno ritornano e agiscono sull'individuo.

Simondon è ben consapevole che il nostro modo di diventare quello che siamo, di individuarci in quanto specie umana, si costituisce proprio in questo circolo. In un testo del 1965, intitolato *Cultura e tecnica*, il filosofo riflette sulla tecnica non come mero mezzo, ma come «fase di un'attività di relazione tra l'uomo e il suo ambiente» (Simondon [1965]: 266). Nel corso di questa fase, l'individuo stimola il suo ambiente introducendovi una modificazione e l'ambiente modificato propone e apre a sua volta un nuovo campo d'azione possibile: «l'energia del gesto tecnico, essendo progredita nell'ambiente, ritorna sull'uomo e gli permette di modificarsi, di evolvere» (Simondon [1965]: 266). Simondon mostra allora come questi effetti di ritorno innescati dal gesto tecnico imprimano dei risultati sulla nostra esperienza cognitiva e sensibile:

> *tutto avviene come se lo schema corporeo della specie umana fosse stato modificato, si fosse dilatato, avesse ricevuto delle nuove dimensioni, con il livello di grandezza che cambia e il sistema percettivo che si ingrandisce e si differenzia. Nuovi schemi di intelligibilità si sviluppano, come quando il bambino lascia il villaggio e misura l'estensione del suo paese. Si tratta di una incorporazione, (…) dell'apparizione di una nuova forma vitale. (Simondon [1965]: 269)*

L'azione di ritorno esercitata dal gesto tecnico è paragonata alle scoperte acquisite da chi abbandona la propria casa per aprirsi al mondo; essa produce «nuovi schemi di intelligibilità», un significativo ampliamento delle nostre prestazioni cognitive, nuove occasioni di apprendimento; ma ciò si accompagna ad un'altrettanto significativa riconfigurazione delle nostre capacità percettive. La nostra sensibilità risulta trasformata, il nostro schema corporeo si dilata e si arricchisce di nuove dimensionalità; la nostra «rete percettiva» si amplia e si differenzia maggiormente. Queste modificazioni incorporate dall'individuo umano favoriscono l'insorgenza di nuovi approcci all'ambiente, di tipo cognitivo e percettivo-motorio. L'evoluzione umana e l'evoluzione tecnica si trovano in un rapporto di interazione reciproca; in questa mutua configurazione ne va anche della modificazione, dell'ampliamento o, in taluni casi, della riduzione del nostro assetto percettivo e sensibile che si riorganizza attraverso la relazione con l'ambiente tecnico nel quale, di volta in volta, si dispiega. Inevitabilmente queste riflessioni richiamano un celeberrimo brano di Walter Benjamin, contenuto nella prima edizione del fondamentale testo *L'opera d'arte nell'epoca della sua riproducibilità tecnica*: «Nel giro di lunghi periodi storici, insieme coi modi complessivi di esistenza delle collettività umane, si modificano anche i modi e i generi della

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evoluzione dell'essere vivente con l'ambiente. In particolare, la teoria della Nicchia ha constatato non solo che gli organismi trasmettono alle generazioni successive i loro geni, ma che possono farlo anche attraverso le modificazioni dei loro ambienti. Gli organismi, dunque, non solo si adattano all'ambiente, ma in parte lo costruiscono, e questa costruzione ha un effetto di ritorno potente sull'organismo stesso e sui suoi discendenti: «Dal punto di vista dei teorici della *Niche Construction* la corrispondenza evolutiva tra organismo e ambiente, cioè l'adattamento biologico, andrebbe intesa come prodotta dall'interazione tra il processo di selezione e il processo di *Niche Construction*. (...) In pratica gli individui della generazione neoformata oltre ad ereditare dalla generazione parentale i geni, erediterebbero anche un ambiente trasformato durante la costruzione della nicchia» (Forestiero [2009]: 269).

loro percezione. Il modo secondo cui si organizza la percezione umana - il *medium* in cui essa ha luogo - non è condizionato soltanto in senso naturale, ma anche storico» (Benjamin [1955]: 24).

Benjamin evidenzia come la nostra percezione risulti profondamente modificata dai dispositivi tecnici che costituiscono il *medium* in cui si dispiega. La percezione dell'uomo contemporaneo, più che in passato, sta in mezzo ad un ambiente sempre più tecnicizzato: è di questo che Benjamin tiene conto, confrontandosi con il cinema, con la radio e con la sempre più vasta industrializzazione. Tutti questi dispositivi costituiscono il «medium della percezione» che viene «incessantemente configurato, plasmato, modulato, scolpito, da un'*Apparatur* tecnica in costante evoluzione» (Somaini [2013]: 118). Il nostro corpo è dunque «innervato» dai dispositivi tecnici: «l'innervazione è una modalità dell'incorporazione in virtù della quale medium tecnico e corpo umano cessano di essere contrapposti come l'artificiale e il naturale, ma si integrano reciprocamente in un complesso protesico funzionale» (Pinotti, Somaini [2012]: 10).

Questo aspetto di incorporazione presente nella relazione tecnica-umano viene considerato nel testo di Malafouris e Ihde attraverso due esempi. Il primo, di tradizione fenomenologica, è il bastone utilizzato dal non vedente: tale strumento cessa di essere un semplice oggetto e diventa parte del sensorio, estendendone l'area tattile; lo schema corporeo dell'individuo si amplia, incorporando lo strumento. Ma si può far riferimento a un modello ancor più recente di questo tipo di relazione protesica: l'*Esoscheletro* robotico progettato da Miguel Nicolelis e dal suo team, il quale ha permesso a un ragazzo paraplegico di tirare il calcio d'inizio dei Mondiali di Calcio 2014 in Brasile. Si tratta di un congegno guidato dalle onde cerebrali in grado di restituire dei *feedback* sensoriali a chi lo indossa e che permette di lavorare con pazienti incapaci di camminare in conseguenza a paralisi degli arti inferiori dovuta a lesioni del midollo spinale in seguito a incidenti, cadute o ictus.

Il secondo esempio riportato da Ihde e Malafouris è quello dell'utensile bifacciale acheulano, prodotto per primo dall'*Homo erectus*, usato soprattutto per la macellazione e nella lavorazione del legno. Secondo Malafouris il processo di scheggiamento che porta la pietra ad assumere quella tipica e simmetrica forma a mandorla, non può essere spiegato come risultato di uno schema mentale pre-formato che si applica a una materia inerte. Scheggiare la pietra è piuttosto l'esito di un'esplorazione possibile solo grazie alla collaborazione, potremmo dire alla relazione trasduttiva, tra umano e la «material agency». La creazione di questo strumento comporta dunque una cognizione non soltanto *embodied*, nella quale il corpo del nostro antenato era coinvolto, ma anche *extended*, poiché comprende la pietra stessa: «the stone, like the knapper's body, is an integral and complementary part of the intention to knap» (Ihde-Malafouris [2018]: 207-208). In questa primitiva esplorazione è presente ciò che, grazie alla riflessione di Simondon, abbiamo definito un sentimento tecno-estetico, considerato anche nel suo aspetto di piacere. Ogni colpo dato è in collaborazione con una materia che mostra la sua lavorabilità o una sua resistenza, che rivela nuove opportunità di manipolazione, di coinvolgimento materiale. È indicativo che lo stesso Malafouris si riferisca a un sentimento: «One of the first things the knapper must learn comes from the senses and relates to the skill of understanding the qualities of stone as formless material-what we might call the "*feeling*" or "tactility" of stone» (Malafouris [2013]: 174).

Malafouris e Simondon condividono l'intento di opporsi a qualsivoglia posizione teorica di stampo ilemorfico. Ne *L'individuazione alla luce dei concetti di forma e informazione*, infatti, il filosofo francese avvia la sua riflessione sull'individuazione proprio a partire da questo punto. L'esempio di cui si serve è quello della produzione di un mattone di argilla per il quale non si tratta di imporre una forma rettangolare a una materia semplicemente passiva. L'artigiano avverte le potenzialità colloidali dell'argilla, le quali partecipano, tanto quanto il suo apparato cognitivo e il suo sentire tecno-estetico, alla creazione di un oggetto utile. Lo schema ilemorfico presuppone e sostanzializza forma e materia, e non coglie dunque l'aspetto trasduttivo dell'atto produttivo.

L'essere umano, "frequentando" e modellando la materia, si modella a sua volta. Attraverso questi esempi – che rappresentano alcuni dei casi di ciò che Montani definisce *empowerment*, poiché realizzano «una singolare *unità di organico e inorganico*, capace di scoprire se stessa, e le sue potenzialità, solo nel corso di un'effettiva attività» (Montani [2017]: 8) – appare dunque opportuno ridefinire i confini che separano cervello, corpo e cose.

Ogni giorno siamo continuamente sollecitati dalle numerose relazioni che intratteniamo con i più disparati dispositivi tecnologici. Viviamo in ambienti associati che ci sottopongono costantemente a possibili occasioni di individuazione che conducono a esiti adattivi, ma anche restrittivi. La comprensione del potere trasformativo e potenziale delle nostre esternalizzazioni tecniche sul nostro modo di vivere e di abitare il mondo che ci circonda è il punto di intersezione tra le riflessioni dei vari autori che sono stati qui considerati. Le mediazioni tecniche prodotte e utilizzate dagli esseri umani non possono essere considerate come passive o neutrali: esse riconfigurano attivamente ciò che siamo[5]. Il dualismo che opporrebbe natura e cultura, come abbiamo visto, perde definitivamente di significato, non è infatti in grado di trovare una risposta all'indagine che cerca di capire come diventiamo noi stessi: è la nostra relazione, il nostro coinvolgimento, con gli artefatti che produciamo e manipoliamo a produrre ciò che siamo.

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[5] Su questo cfr. il concetto di *Mediazione Radicale* di Richard Grusin (2015).

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Devices in Experimentation: The Work of Art in a Pragmatist Perspective, between Somaesthetics and Techno-aesthetics

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Abstract. John Dewey puts aesthetic experience at the center of his reflection on art and beauty, reconsidering it dynamically. Nowadays, this view opened the path to somaesthetics, a term coined by Richard Shusterman, and aesthetic anthropology. Here, it is argued that the contribution of pragmatist aesthetics could be further developed by exploring its analogies with techno-aesthetics, a paradigm proposed by the French philosopher Gilbert Simondon in the early 1980s. Art occupies accordingly a special place within the different forms of aesthetic experience, being considered as a way of experimenting the impact of new technologies in the human experience. It is a process by which technologies create "devices" for experimenting perception and reflection: namely, ways of reconstructing the nature of the human mind in-between body and technology, and by means of their interaction. Cinema reconsidered by Dewey's fellow George H. Mead, offers an exemplary case as both artistic and technological devices.

Keywords. Techno-aesthetics; Somaesthetics; Art; Aesthetic Experience; Philosophical Anthropology.

INTRODUCTION

Contemporary philosophy, above all pragmatism, is especially engaged in rediscovering the meaning and import of bodies to the human experience. The formulation of a new paradigm of aesthetics is exemplary of this trend. It is the case for Richard Shusterman, who coined the very expression of "somaesthetics" – *soma* being the Greek word meaning "body". Somaesthetics is symptomatic of some of the interests and claims animating the contemporary philosophical debate. On the one hand, we see the appeal to the reformation of aesthetics. As every reformation, Shusterman's idea of rethinking aesthetics as "somaesthetics" is also a way of reconsidering its theoretical premises: for aesthetics, according to the idea if his founder, Alexander G. Baumgarten, was originally meant to be the doctrine of the «sensible or inferior cognition (*cognitio sensitiva seu inferi-*

or)». And as far as sentience is concerned (Shaviro [2016]), bodies constitute an unavoidable reference, which still needs to be adequately investigated. The aim of the present paper, however, is not to consider the body as an independent entity, no matter whether aesthetic or not. Bodies will be rather considered here as means for developing cultural and cognitive structures, by which data are not only gathered but also elaborated. This idea leads to the way Kant reconsidered the theoretical status of aesthetics in 1790, with the publication of the *Kritik der Urteilskraft*, about forty years after Baumgarten's foundation of aesthetics. When speaking of the interrelationships existing among understanding (cognition), imagination (sense-data elaboration) and feeling (sentience) in the formulation of aesthetic judgments, Kant actually argues, among other things, that the elaboration of experience cannot be isolated from its constitution in (Desideri [2011]). In the present paper, I argue that pragmatist aesthetics, as this latter is theorized by John Dewey, is more consistent with Kant's insight than what somaesthetics would think; pragmatist aesthetics just puts a stronger emphasis on the bodily interaction with the surrounding world in the course of experience.

Soamesthetics also argues against any sharp and rigid division between popular and eye-brow culture. As soon as the emphasis passes in aesthetics from old categories, such as contemplation, to the newly considered category of the body, the abovementioned distinction between "high" and "low" phenomena in culture loses some of its legitimacy: for, at any rate, bodies express or perform values that cannot be judged according to highly spiritualized standards. In other words, aesthetic distance, that is, the need for removing any direct emotional commitment, is no longer, at least not necessarily, a discriminating standard for judging artworks. Let us take pop music. The evaluation of its aesthetic import cannot be reduced to melody and lyrics, although these features still play a role. Pop music occupies a place in our lives, from love to leisure time, which leads us to consider its aesthetic value as having creative effects to the atmospheres of our everyday life (Di Stefano [2017]; Griffero [2016]; Matteucci [2015]). However, a charitable interpretation of the pragmatist criticism of the eye-brow culture should lead us to consider the possibility of "re-embodying" the official culture (painting, classic music, drama, etc.) into new patterns. This phenomenon is well epitomized by the filmic adaptation of novels and dramas. By the way, this was John Dewey's attitude toward art experience.

The common trait of these phenomena is that aesthetic experiences address a living body, rather than a reflecting mind: for instance, movies ask the beholder an identification that goes beyond beliefs and opinions and appeals to a virtual embodiment into the hero's deeds (Mead [1926]). This is even more relevant to the contemporary process of the aestheticization of politics: let us only think to the importance given by politicians to the bodily appearance – often by means of the social media – and its power of creating collective identities.

Nonetheless, pragmatism does not usually provide an analysis of the body's nature, rather focusing on its agency and performance. Other philosophical schools have developed this issue at length. Let us only think of phenomenology: the interest of this school for the body starts with Edmund Husserl's (1960) distinction between *Leib* and *Körper*, that is body considered as an organic living entity, interacting with the rest of the world, and body as a purely physical entity. Or Maurice Merleau-Ponty's (1968) concept of "flesh" (*chair*), which does not correspond entirely to Husserl's *Leib*, inasmuch the former argues the ontological mutual implication of the perceiver's flesh and the world's flesh within the process of perception. And of course, we must consider the approaches which are critical of phenomenology, though being inspired by it: from Helmuth Plessner's (1980) idea that *Leib* and *Körper* are mutually implied to Gilles Deleuze's (2005) belief that the most significant experience with which painting could ever supply its beholder, as happens in Francis Bacon's art, is not the "flesh of the world" but rather the inorganic and dead-like character of reality, its being "meat" (*viande*).

Such insight into the nature of the human body is likely to be found in pragmatism: its interest being rather the *interaction* between the world and us. Of course, this interaction finds in the body its unavoidable means. But, behind the emphasis on interaction, pragmatism seems to be more interested in its expressive, rather than its receptive agency: on how it exposes the state of the mind *outside*, rather than how it configurates it *inside*, in accordance with the object of experience. Expression is, of course, not addressed to any special target, but refers to the configuration of the expressive self as such. In the pragmatist perspective defended by Dewey, this is the very target of expression in aesthetic experiences: not this or that object, but the general address of the "live creatures" to their surrounding environments considered (in general) as the means of their life. According to some accounts, this is a reference to the biological survival of the species (Ottobre [2012]) or the psychological condition of the self (Alexander [1987]). To Dewey, however, there is a difference between the bare discharge of a biological need through a bodily "motion" and the embodied expression of an "emotion". Both refer to life, though at different degrees and stages.

Nonetheless, somaesthetics tends to overlap motion and emotion. But if my approach is right, the aim of pragmatist aesthetics is rather to understand why emotion is able to absorb and reshape motion while exceeding its scope in the expression of feelings. My argument is, therefore, that we are bodies – that is, living beings, whose thoughts are inseparable from their deeds – inasmuch we have "interactive feelings" – that is, feelings which enhance the exchange with the surrounding world. That's why interaction has been the center of the aesthetic concerns in pragmatism, since John Dewey and George H. Mead, who was Dewey's fellow at Chicago University and applied the former's aesthetic theory to his own studies in the psychology of identification. But this is true also for a philosopher like Susanne K. Langer, although she was critical to Dewey's sympathy for non-traditional art experience. Nevertheless, whilst she draws her examples from some very traditional contexts – but surprisingly for her age, not only from the usually called "fine arts" – and refuses any aesthetic implication in ordinary life and objects, she develops a concept of interaction that is totally consistent with the pragmatist method of investigating experience.

I shall proceed as follows: in the next paragraph, I reconstruct Dewey's concept of interaction as it emerges in his account of aesthetic experience; in the third paragraph, I consider the cognitive implications of this account of aesthetic experience, according to some of its most recent readings; in the last paragraph, I make some final remarks about Mead's notion of aesthetic identification, which I shall consider as one of the best candidates to explain the relevance of the bodily interaction to culture as a concrete experience. The first paragraph supplied with the general paradigm of aesthetic interaction; the second one help argue the meaning of aesthetic experience as a device available to the human subject: namely, a structure being able of establishing the conditions of experience anew; the third one let me theorize the work of art as a sort of *technology of attention* orienting and redirecting the audience's perception by giving it a cultural – and technological, as far as art is a form of technique – framework. In other words, an aesthetic experience so construed arguably designs and shapes human subjects as constitutively exposed to the technological reconfiguration of their cognitive and emotional agency (Ihde [2002]; Stiegler [1998-2010]).

In the light of the German philosophical anthropology, above all Plessner (2019), one could speak of the human position – in the world as well as in itself – as essentially "decentered". But unlike the German philosophical anthropology, with its claim for technics as a sort of "compensation" for this decentered position, pragmatism is consistent with the idea of "techno-aesthetics". Techno-aesthetics is a word coined by the French philosopher Gilbert Simondon (2014), in his 1982 letter answering Derrida's request of suggestions concerning the foundation of the Collège international de Philosophie. According to this letter, the meaning of this new branch of philosophy is

manifold: it ranges from the reconsideration of the aesthetic experience in terms of technique – the beholders of Leonardo's *Mona Lisa* admires her smile because they integrate it with the movement of her lips, as if their vision was a filmic montage – to the discovery of the aesthetic features of both technological devices – the Eiffel Tower – and technology-oriented artworks – as happens for the Futurist movement – to mention only of the most influential versions of techno-aesthetics argued by Simondon. The version mostly consistent with the present paper sounds as follows: as far as the work of the senses is especially concerned in the human interaction with the world, which is even considered its primary task, we discover that our sensations refer not only to passive (or rather, receptive) states of our minds, but also to an active engagement in technical operations of manipulation or transformation of the physical matter of our experience. Drawing an example from ordinary experience – an example of mine, not of Simondon – the sensations we receive from food as we cook (colors, flavors, texture of the food) cannot be isolated from the concrete act of cooking, that is, transforming those natural elements into a dish ready for being tasted. Accordingly, Simondon argues that even the aesthetic delight we take in beauties is, at least originally, inseparable from some technical disposition toward the subject-matter of our experience. Architecture is particularly suitable to this case: as far as we take delight in the shape and decoration of a building, we also appreciate its "fitness" for the function it was designed for. Nor is beauty subordinated to function, and neither is the opposite true: it is rather plausible that beauty and technical functionality are two interdependent factors in the process of building and dwelling. If we consider the reuse of pagan temples as Christian churches in many places throughout the territory of the former Roman Empire, or the passage of the same holy site from and to being either a church or a mosque, we see how far aesthetic, cultural and technological factors interacted in defining the "form" of those sites. Most importantly, we are led to acknowledge that we are unable to fully appreciate that form outside a joint evaluation of its aesthetic, cultural and technological agency: the brilliancy in reusing a certain space for a new liturgical need, without losing its aesthetic effect, can be considered as one of the highest virtues of the architects who worked to those buildings in different ages and having different purposes. Simondon (1954) considers the radical separation of aesthetic and technical motivations in the evaluation of a work as a later product of modernity.

AESTHETIC EXPERIENCE ACCORDING TO JOHN DEWEY

John Dewey develops his aesthetic theory in a period of time that is also a fundamental step in his philosophical elaboration. In 1925, with the publication of *Experience and Nature*, Dewey offers a synthesis of his philosophy and presents his method of investigation. *Experience and Nature* contains a chapter on aesthetics, the title of which is *Experience, Nature and Art*. *Experience, Nature and Art* already contains the heart of Dewey's aesthetic theory, although some remarkable differences can be found, with regard to his later reflections on aesthetics. However, his general idea of the aesthetic remained unaltered. In 1934, he publishes his best-known treatise on aesthetics, *Art as Experience*, in which he gathered and ordered the lectures he gave the year before on that very topic. Between 1925 and 1934, he published short essays, in which he deals with special issues concerning aesthetics. One of the most interesting is *Individuality and Experience* (1926), in which Dewey enquiries the importance of art education, as well as the relevance of this form of education to a proper understanding of aesthetic experience at large.

In *Art as experience*, Dewey famously argues that we should consider the aesthetic "in the raw" before passing to the most refined aesthetic experiences available to our civilization, such as works of art. To have such a "raw" aesthetic experience, one just needs to go out and have a walk throughout the city: noise, sounds, colors, the shape of the

buildings, the speediness of the cars, the crowd occupying the streets and squares being busy with their affairs – all of these aspects being as many triggers to the experiencer's sensibility.

Actually, Dewey did not make his account of the aesthetic in the raw depend on any previously argument or theory on the human sentience and perception. On the contrary, the remarks contained in his aesthetic essays seem rather to depend on his general account of the aesthetic experience as a whole. This is, of course, an effect of the "empirical method" Dewey presented in first chapter introduced in the second edition (1929) of *Experience and Nature*. According to this method, the pragmatist philosopher should never start her enquiry from an abstract conception of the subject's mind or perception: the nature of these entities should rather result from the actual investigation of experience, just as happens with nature, the reality of which cannot be fully detached from the experience we have of it. But if what I have just said is true, then experience is but a name for a form of interaction that puts in mutual contact the subject's inward life and the reality outside them, as well as each one of them with the others. Or at least, this is the case for aesthetic experience.

The reference to mind activities at work in the process of experience, together with the establishment of their relationship to the world outside, is especially mentioned by Dewey in the last part of *Art as Experience*, when he argues that, before being a noun, "mind" is a verb ("to mind") designating our special care for the persons, things and affairs surrounding us. Dewey is not only committed to the mind-body problem, as clearly stated in *Experience and Nature*. His remarks actually foreshadow the Extended Mind Theory, as he imagines mind as a reality existing in-between the brain's inward processes and the reality of the world available to our knowledge and action. One of the main functions of experience is, therefore, that of recreating the mutual connection between thought and reality anew. Every kind of experience fulfills this task in a way or another: educational experiences do it for the sake of the youth's education and intellectual growth; cognitive experiences do it for the sake of getting a deeper knowledge of nature; ethical experiences do it for the sake of redirecting more adequately emotions to the objects of their interest. This is just to mention some of the most eminent examples of human experience and their task with a view to the enhancement of the mind.

But what is the task of aesthetic experience? The answer to this question is in fact much harder than one could believe. Before answering this question, let me only remind that the idea that aesthetic experiences have a task must be intended in a broad sense. It is precisely the sense according to which, following the Kantian paradigm, aesthetic experiences have the power of supplying us with the experience of the non-empirical conditions of experience generally construed (D'Angelo [2011]). In other words, aesthetic experiences have the "task" of reorganizing the cognitive faculties of the mind and enhance their agency, though only in an indeterminate way, that is, having no immediate cognitive purpose (Garroni [1976]; Kukla [2006]; Marcucci [1988]; Palmer [2011]). The idea that aesthetic experiences have such an indeterminate and mediated task becomes even stronger in a pragmatist perspective. As a matter of fact, since Dewey, pragmatist philosophers often refer the sense of aesthetic experience to the reorganization of the human form of life, considered either biologically (Noë [2015]) or culturally (Shusterman [1992]). If we consider experience from the point of view of its outcome, we come to the following conclusion: the outcomes of either the cognitive or the ethical experience are much more easily recognizable than that of the aesthetic experience. Cognition and behavior offer easy references for such outcomes, being respectively the outcome of either investigation or deliberation. The solution is less evident when we pass to the case for education. Education is relevant as far as art education occupies an important part in Dewey's (1988a) account of aesthetic experience. Dewey's (1988d) influential views on education are largely based on the idea of cooperation between teacher and student. Scholars in education usually investigate the para-

digm of the "learning by doing" education according to this preference given to cooperation in the educational process. But there are some other aspects implied in this process, which are maybe more interesting for a philosophical account of the aesthetic experience. As far as art is concerned, Dewey cares for the fact that teachers are "masters" whose task is not limited to share an already accomplished knowledge with students – who are considered as "apprentices". Education is a process of growth, the conclusion of which coincides with the recognition that students, the youth, have become autonomous individuals: they are able and free to behave and have experiences independently from their teachers' directories. Furthermore, teachers are now in the condition of learning from their own students' outcomes, in order to revise their previous know-how. If we consider aesthetic values (beauty, harmony, style, decoration, etc.) as elements of such a know-how, we acknowledge then that aesthetic values stay neither entirely on the teachers' side, nor in the students' side. Aesthetic values lie rather in-between them.

Dewey's remark on art education are relevant to his aesthetic theory at large. They point out, in fact, to a new model of autonomy in art, conceived not subjectively in the facts and intersubjectively only in theory, as might be argued for Kant's theory of the reflecting judgments. Having an independent insight into art creation implies *cooperation*: for cooperation is the pragmatic enhancement of the human interaction with environment. This position recalls Friedrich Schiller's arguments in the *Letters upon the Aesthetic Education of Man* (1795) when arguing the anthropological basis of aesthetics. It is not by chance that Dewey admired Schiller's way to aesthetics, whilst criticizing Kant's one – needless to say, largely misunderstanding this latter. Nonetheless, as far as we are concerned with Dewey's way to art education, his ideas could sound even closer to Kant than to Schiller. I am referring to what Kant writes in § 46 of the third Critique about the difference existing between "imitation" (*Nachahmung*) and "emulation" (*Nachfolge*) in the affairs concerning beauty. One imitates somebody else's taste or genius when one attempts to reproduce them mechanically, as if they could be reduced to a set of rules – which is impossible in principle. Contrariwise, one emulates somebody else when one takes the somebody else's taste or style as a model for her own aesthetic judgment or creativity, while keeping in mind that emulation does not replace her freedom in judgment and creation, but is rather a means by which they can be fostered and enhanced. The difference between imitation and emulation is epitomized quite easily and immediately if we refer to art. The Italian historian, critic and theorist of art Cesare Brandi (1986) considers Mannerism as an art movement in which creativity was reduced to the reproduction of two styles: namely, those of Michelangelo and Raphael. The painters belonging to the Mannerist movement followed either the former or the latter in matters of style: paintings were considered not really as pictures by the artists of Mannerism, but rather as "signs" witnessing their belonging to either the former's or the latter's school. This is imitation, properly speaking. And by the way, it may lead to remarkable aesthetic results – as happens to many Mannerist painters, such as Andrea del Sarto, Pontormo or Rosso Fiorentino – but still lacks originality. On the other hand, emulation is experiment in art when analogies can be discovered between an artist's work and other artists' works or other genres and styles. It is so for Caravaggio's *Vocazione di San Matteo* (1599-1600) (Prater *et alii* [2012]). It is a painting in which the artist probably applied the devices and even the tricks he learnt while training in making a genre of art inspired by ordinary life, which followed different standards than official historical, mythological and above all religious art. The cycle of St Matthew for the Contarelli Chapel was Caravaggio's first commission in religious art. Furthermore, many observers suggested that Jesus' gesture of indicating the publican Levi with his finger, while being accompanied by a certain degree of ambiguity that was unusual in religious painting and more typical of profane art, could be inspired by Adam's hand gesture toward God Father in the Frame of the Creation of Adam in the vault of the Sist-

ine Chapel. By means of a web of art "quotations", Caravaggio's painting would be therefore nourished by a series of theological references, while presenting the scene taken from the Gospel as a scene of ordinary life. In this case we have emulation, rather than imitation: the artist did not follow his models slavishly, but took them as patterns of inspiration. By the way, emulation seems to require a good degree of interpretation. Another example of this sort of experimented emulation in contemporary art can be found in Francis Bacon's variants of Velásquez' portrait of Pope Innocenzo X. In this case, Bacon finds new meanings, concerning his own views on humanity and its bodily condition, in a masterpiece of the Baroque art of official portrait (Deleuze [2005]).

Not mind alone but mind in action – which is an embodied mind, by the way – operates in Dewey's account of emulation in art. Arguably, the art creator, before designing the work of art she has in mind, imagines a *virtual body* by which she is able to *simulate* the interactions with the work, both during the creative process and at the moment of reception (Dewey [1988b]). In this perspective, *culture is the complex of all bodily operations and affections that can be designed and simulated with regard to the world of artworks available at a given moment*. In *Experience and Nature*, Dewey argues indeed in favor of a special task of art – or "fine art", as he calls it, recovering this word from the language of the modern theory of art and renewing its meaning. "Art in being, he writes, the active productive process, may thus be defined as an esthetic perception together with an *operative* perception of the efficiencies of the esthetic object" (Dewey [1981]: p. 281). For this very reason, considered from the audience's point of view, art is "a device in experimentation carried on for the sake of education. It exists for the sake of a specialized use, being a new training of modes of perceptions" (Dewey [1981]: p. 293). Dewey does not isolate art from the aesthetic realm: he rather finds the proper place for art within the manifold manifestations of the aesthetic quality of experience, that is, the several different ways by which human beings, the "live creatures", are able to organize the raw and scattered matter of their sensible interaction with the world into *an* experience.

According to the quotation mentioned above, art is likely to perform its powers more especially on *perception*: it trains or educates us to a new perception of reality. As I said, the overlapping between training and education is typical of Dewey's pragmatist approach to education, which brings him to develop a philosophy of education based on the principle of "learning by doing". The analogy between works of art and tools (microphones and telescopes) strengthens this belief. Nonetheless, it could be misleading: for technologies offer new tools for having further experiences, which might be in turn scattered and result in no organic experience, whilst the work of art is created for fulfilling the second task, which is an aesthetic enterprise properly speaking. To put it in a formula, one can say that microphones, telescopes and every sort of capture technology supply us with perceptions made available by a certain operability: the aesthetic quality of these perceptions, that is, their pointing out to the dynamic unity of experience, is left for further elaboration. Contrariwise, works of art present this very elaboration and so empower their audience to larger areas of operability than before. This is the meaning of the feeling of liveliness often bound – by Dewey, among others – to the aesthetic experience. This is what Dewey calls sometimes the "consummation" of the aesthetic experience, which emerges in the interplay with its "instrumentality". Experience is momentarily liberated from both the routines of already assumed habits and behaviors, and the fragmentation of pure contingence, in which the only standard to evaluate facts and events is dictated by the law of impulse. Expression, as Dewey repeatedly states, differs from mere impulse as far as the latter is triggered by immediate needs, whilst the former entails a larger and deeper consideration of reality and engages all the forces available to the self to support this interaction. We can say now that expression is but the general phenomenon concerning the set of operations and affections by which a body simulation becomes available to cultural exchanges. If this statement

is right, then aesthetic perception acquires a fundamental importance inasmuch it is the moment when the cultural import of art, that is, a form of body simulation, proves its efficacy. In other words, it is through perception that minds discover whether and how far bodies are available to their designs and imaginations. Works of art can be therefore considered as "strange tools" (Noë [2015]), the function of which is to either enhance or stabilize the identity of living organisms governed by a reflecting mind – human beings, for example. Furthermore, they provide these organisms with devices that either implement or expand their communicational agency. In that sense, works of art are not just "strange tools": they are, more precisely, *perceptual and emotional devices*[1]. This is peculiarly true for those technologically supported works of art that are movies – as well as, of course, for their contemporary expansions: video installations, web documentaries, etc.

THE WORK OF ART AS PERCEPTUAL AND EMOTIONAL DEVICE

Art seems therefore to be a device being able to orient perception, in order to trigger its agency. Accordingly, aesthetic experience does not lose its instrumental quality when developing a new consummation of reality. On the very contrary, it reorganizes the mind's (and the body's) relationship to the world: now, it is the search for new consummation – that is, renewed pleasure taken things and events, accompanied by the acquisition of new meanings concerning those things and events, as well as reality at large – that leads instrumentality, whilst in the ordinarily utilitarian experience, it is the instrumentality of this experience that seeks the repetition of already experimented consummations. Of course, the concept of instrumentality does not entail the actual use of technologies. However, it sheds a special light on the human practical intercourse with nature: for it foreshadows that every practical interaction with nature is oriented to the discovery, development or refinement of some tool or technique. For that very reason, one might argue that, far from forerunning somaesthetics, Dewey's aesthetic theory could be considered as an original version of techno-aesthetics.

Nonetheless, in Dewey's account of the technical import of aesthetic experience, bodies matter to a techno-aesthetics much more than in Simondon's original formulation of this concept. As we saw above, Dewey reaffirms the analogy of works of art with technics. But this relationship is much different than it was conceived during antiquity – although Dewey aims at finding some continuity with the Greek thought, arguing that as far as *techne* indicated in Greek a skilled and expert interaction with a special kind of objects, this is the equivalent of his conception of experience. But Dewey addresses especially the issue of how minds, bodies and eventually cultures are engaged in the imaginary simulation and technological design of experience. The category of "work of art" must be considered here at large. Dewey considers also new media – radio and newspapers, for instance – as artistic devices that newly design the citizens' participation to the public sphere and the very process of deliberation[2]. This phenomenon points out to a sort of "proxification" of the body, in the broad sense of body argued here. By "proxification" I mean the tendency the human body manifests to be prolongated by technological proxy. This phenomenon is more evident in

[1] In a recently published book, Giovanni Matteucci (2019), in a philosophical perspective comprehending Dewey and pragmatism, suggests a revival of the argument that works of art are "devices".

[2] Honneth and Farrell (1998: 775) argue that, in Dewey's perspective, the public sphere functions as a "cognitive medium". I agree with their perspective in Dewey's political theory; however, I believe they do not consider how far media, in the narrow, technological sense of the word, are necessary to establish the public sphere as a cognitive medium amid political agents. Furthermore, they do not consider that Dewey actually considers these media as artistic devices, in a sense that emphasizes their power on perception and sensibility. Accordingly, we should speak of the public sphere as both a cognitive and an aesthetic medium.

the case of capture technologies (microscopes, for instance), which extend one of our sense organs (mainly, but not only, the eye). It is less evident, but still relevant, in the case of media, such as newspapers and radio. But it becomes extremely significant for new media, which create duplicates of ourselves, acting in our place and are our representatives in a public virtual sphere: let us just think to the use of tweeter, blogging, YouTube and even holograms as means to political action, and sometimes replacement of traditional political identities. New media intercept their artistic import as far as we consider them as necessary proxy of the acting and communicating selves: they provide them with a «radical mediation» (Grusin [2015]) of their deeds, speeches and imagery.

As a matter of fact, in all of the abovementioned cases, technological devices enact an artistic power while keeping their nature of device. Furthermore, these devices depend on the interaction between technological device and the body, but do not necessarily replicate the body's structure and functioning: bare intensification of the body's "natural" powers is only one of the manifold solutions available to technology. On the contrary, this latter is able to shape the body's form and identity: as has been noted, media environments are for instance able to make visitors literally feel sensations and feelings to which they have no access in their ordinary lives (Pinotti 2018). Are these experiences part of our bodily memory, as much as those offered by real life? I believe they are as far as virtual or augmented reality (Diodato 2013; Montani 2014) affects us, shapes our habits[3] and orients our behaviors: they are instrumental to a new consummation of reality, to use Dewey's words. Nor such experiences always end with the reduction to natural bodies: artistic devices sometimes establish new stable "hubs" for our identities, as happens for instance to our social media accounts. Most noteworthy is the fact that the reflecting mind does not precede the interaction among body, technology and reality, but rather emerges during this interaction as a sort of dynamic background of experience, as Dewey argues in the last part of *Art as Experience*. As a matter of fact, we deal with natural objects having in mind the purpose of discovering new properties of them: this means, in a pragmatist perspective, that we make them available not only to our present action but to an indeterminate and virtually infinite series of future actions – an operability, the meaning of which appears inexhaustible: namely, indefinitely available to our consummation. Most importantly, we make them available to forms of common use and exploration: to this purpose, body simulation becomes pivotal. And the design of perception through artistic and technological devices is the primary target.

Interactive video installations, such as *Carne y arena* (2017) by Alejandro González Iñárritu or Studio Azzurro's narrative museums and sensitive environments, are good examples of this situation: mind is able to develop its tools for elaborating experience only after and with reference to a new organic alliance between the body and the technology we apply to[4]. Noë (2015) applies a techno-aesthetic perspective on aesthetic experience and especially art, although he never calls his theory in this way, in order to enlarge the horizons of the Extended Mind Theory and apply it to the aesthetic realm. But to do that, he needs to open the perspective of this theory to biology broadly construed, in particular the idea of organism, while arguing the role of technics in building a properly human culture. The aim of this strategy in argumentation is not reductionist: aesthetics is still a part of philosophy, not of science. Narrowly speaking, conceiving works of art not just as "strange tools", but also and more importantly

[3] For the role played by habits in Dewey's philosophy, see Dreon (2016).

[4] I use the term "organic" in the same sense as Noë (2015) who, in a pragmatist vein inspired by Dewey, argues that technics is able to literally reorganize human life outside the boundaries of biological organisms, and that works of art are "strange tools" that do not apply to any special task in particular, but enhance our consciousness of how far our identities can be established only through the displacement of our bodies onto technology.

as perceptual and emotional devices, I argue that to have an aesthetic experience by the means of art implies the fact of being charged by the establishment of new cultural values, in order to make sense of, or reject, the new affections triggered by the encounter with a given work. Accordingly, we need to formulate some hypotheses concerning the emotional attitude we have in the course of the aesthetic experience. The hint for such hypothesis is given by George Herbert Mead's reconsideration of Aristotle's notion of *katharsis* in his article *The Nature of Aesthetic Experience*, appeared on the *International Journal of Ethics* in 1926 and largely influenced by John Dewey.

George H. Mead's interests as a scholar mainly went to the psychology of the self and social psychology. Philosophically speaking, he was largely inspired by John Dewey's pragmatism. With Dewey, he contributed to the development of the University of Chicago, where they were colleagues. Mead devoted only few articles and essays to the issue of the aesthetic. This issue, however, could but play a key role in the definition of the psychology of the self, in the light of its social meaning. As far as aesthetic experience is concerned, Mead seems to appropriate Dewey's aesthetic theory. However, Mead develops an issue that Dewey seems not to consider in his aesthetic writings, and with the outmost originality. Dewey was much concerned with contemporary mass phenomena in aesthetics, and was sometimes reproached for this reason (see Langer [1957]: 27, 110-111); nevertheless, he never elaborated a theory upon cinema. By the way, cinema is often considered as the forerunner of the contemporary experimentations with video art and interactive technologies (Grusin [2015]). In his article about aesthetic experience, Mead fills this gap; however, the scope of this article is not limited to filmic experience and entails a general pragmatist conception of the aesthetic. Furthermore, the originality of Mead's contribution is not bound to the fact of filling a gap in Dewey's theory. Mead elaborates here an original view concerning the role of emotion in the aesthetic experience: he recovers Aristotle's classical notion of *katharsis* and reconsiders its meaning in the light of the new forms of narrative, that is, at his times, cinema. The import of Mead's contribution is therefore twofold: on the one hand, he discovers a new connection between pragmatist aesthetics and the previous conceptions of art in the history of philosophy; on the other hand, he specifies what happens when emotion is not aesthetically oriented generally speaking, but is triggered by an artistic device.

Mead considers a mass consume product of the Hollywood cultural industry of his times: adventure movies. Accordingly, he wonders as follows:

> Does this discovery of a situation in which one may enjoy unreproved the terrors and fright of another quicken the old impulse and render him callous to sufferings of others? I think not. I think the experience is rather a catharsis, in an Aristotelian phrase, than a reversion. Nor does physically timid man become more courageous from watching with compensatory delight Doug Fairbanks annihilate a nest of bandits. But there should be a certain release, and relief from restraint, which comes from the fulfilment of the escape reaction with a richness of imagery which the inner imagination can never offer. If these escape reactions play any legitimate part in the economy of keeping house with one's self, and I think they do, the elaboration of them at just the point where the imagination fails should emphasize that function, and the enjoyed imagery is genuinely aesthetic. (Mead [1926]: 392)

Otherwise – Mead concludes as he applies the same consideration to modern literature, such as Joyce's *Ulysses* – imagery would be only a "private affair", lacking any social meaning (Mead [1926]: 393). Interestingly, Mead's insight into "catharsis" as a filmic device is consistent with the interpretations of Aristotle's notion, developed by both hermeneutics (Gadamer [1960]) and the aesthetics of reception (Jauss [1972]) during the second half of the 20th century: the end of this purification from "terrors and fright" is that the spectator finds her place in the world and recognizes reality as her own reality anew. Every theory based on the idea of the spectator's direct and immediate identifica-

tion with the "hero" are here rejected as too naïf.

But Mead is interested in the psychology of the audience: namely, to what happens to their bodies as their emotions are triggered by some movies. He seems to forerun the recent application of the concept of "embodied simulation" forged by the neurosciences to film theory (Gallese&Guerra [2015]). According to the Embodied Simulation Theory, the spectator who watches, for instance, a scene characterized by suspense activates the same neuronal networks as if she is undergoing the same experience. Many sequences in Hitchcock's movies are likely to be designed according to this principle. However, Mead gives us an important indication concerning how to avoid any form of reductionism in applying this theory to cinema and art in general. He distinguishes, in fact, between the individual's "imagination" and the movie's "imagery": the former is limited as far as it depends on the individual's constituency, habits, behaviors and past experience, whilst the latter is intrinsically social. Mead's remarks on the social value of film go exactly in the opposite direction than those proposed by Adorno and Horkheimer (1973) about twenty years later: filmic imagery does not expropriate the individual's imagination of its freedom in "schematizing" experience; on the contrary, the former has the power of nourishing the latter.

When we consider works of art as perceptual devices, the idea of "proxy", that is, a mere extension of sense organs, is consistent with our consideration. However, when we pass to consider them as emotional devices, our reflection upon the technological import of art needs to be reconsidered too. To conclude, I would like to argue that, as far as emotions are concerned in art, the very concept of device needs to be reformulated. In the ordinary experience, emotion appears to be a special tie between subjects and objects, or subjects and subjects: the capability, or incapability, of handling objects or relationships to other subjects seems to be an essential drive in the phenomenology of emotions (Nussbaum 2001). In the aesthetic experience, things stay in a different way. Here, emotions target not a dual but a triple relationship: subjects, objects and the devices connecting them. The subject's emotions contemporarily refer to some objects (stories, images, sounds, etc.) and devices (the media used). The expertise required to handle these media triggers an emotional condition as much in the use (broadly construed) of the artistic media as in the experience of the very content of the work of art. Arguably the emotion oriented to technology is an essential component of our aesthetic pleasure as much as the emotion oriented to content: for both of them concur to the reorganization of the subject's cognitive attitude at large. Here it is one of the possible senses of the connection between aesthetics and the Extended Mind Theory (Noë 2015; Matteucci 2019): our interactions with works of art considered as devices provide us with new "landscapes" for our cognitive activity.

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