

Cities are not made only of stone: they harbor ways of life, practices, movements, moods, atmospheres, feelings. Yet the ineffable nature of affects has long deprived human passions of a meaningful role when it comes to observing urban space and envisioning its future transformation. With this book, we explore the contemporary city and its transitional conditions from a different perspective: a quest to understand how the space of collective life and the feelings this engenders are connected, how they mutually give form to each other. In an interdisciplinary collection of essays, *The Affective City* means to open a discussion on the "soft" presences animating the world of urban objects: beyond the city built out of mere things, this book's focus is on the forces that make urban life emerge, thrive, flourish, but also wither, and sometimes die. A task crucial for the survival of cities as human habitats, in an urban world that - with every passing day - seems to draw closer a crisis.

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Edited by
Stefano Catucci
Federico De Matteis

THE AFFECTIVE CITY



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Vol. 1

THE AFFECTIVE CITY

Spaces,
Atmospheres
and Practices
in Changing
Urban Territories

LetteraVentidue

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From Rasmussen's *Experiencing architecture* to *Questions of perception* by Holl, Pallasmaa, Pérez-Gómez, and Mallgrave's recent book *From object to experience*, the empathic and affective condition has taken on increasingly central importance in the reflection on architecture. This essay covers certain salient moments in the development of empathy in aesthetic criticism and phenomenological philosophy, emphasizing the cultural and scientific factors that recently contributed to what has been defined as an "emotional turn". Particular emphasis is given to the developments, since the 1980s, of embodied cognition and to the perceptive model of embodied simulation which, following the discovery of mirror neurons, may today constitute the functional basis of empathy: that affective empathy which we must, however, place alongside a reconstructive empathy that, starting from the perceiver's lived experiences, requires attention, imagination, and memory. In this convergence between natural sciences (with particular attention to

the cognitive sciences and neurosciences) and human sciences, architecture can regain a dimension – in the phenomenological tradition – linked to the living body, in which the rediscovery of empathy becomes the possibility to articulate an understanding of space (in both use and design) that hinges upon feeling and human action.

1. Architecture as an experience

In 1957, Danish architect Steen Eiler Rasmussen published *Om at opleve arkitektur* (*Experiencing architecture*), which focused on the lived experience of those who use a space. As we read in the English edition (1962, p. 33):

Understanding architecture, therefore, is not the same as being able to determine the style of a building by certain external features. It is not enough to see architecture; you must experience it. [...] You must dwell in the rooms, feel how they close about you, observe how you are naturally led from one to the other. You must be aware of the textural effects, discover why just those colors were used, how the choice depended on the orientation of the rooms in relation to windows and the sun. [...] You must experience the great difference acoustics make in your conception of space: [for example] the way sound acts in an enormous cathedral, with its echoes and long-toned reverberations.

It is therefore necessary to let architecture speak and concentrate on the life led within it, leaving aside abstract questions, theoretical debates, or interpretations through critical and stylistic categories, while drawing rather – and simply – on “how we perceive the things that surround us” (p. 8), how they influence us, and lastly how we reconstruct them to gain experience from them.

In his book, which reads more like a short story than an essay, Rasmussen “places himself in the shoes” of the user rather than of the architect: built spaces, in fact, are not only the product of a thought, but are above all active subjects that trigger reactions, emotions and feelings, influencing the lives of those who come into contact with them. Without necessarily identifying a two-way relationship between the quality of materials and the emotional and mental entanglements induced by the work, the text emphasizes a certain *concordance* based on receptive, perceptive, and psychological characteristics of human nature, founding its reading upon a *relational system* that, starting from architectural space (in the opposition/complementarity between solid bodies and hollow spaces, capable of catalyzing, in certain historic periods, the most explosive expressive force), includes the effects of scale and proportion, rhythm, texture, light, color, and sound.

As Nicola Braghieri emphasized in his *Introduction* to the book’s Italian edition, the “architecture of grand manners disappears in front of the simple reading of the construction as an object capable of astonishing, frightening, and charming” (2006, p. 15): a direct way to link the built space to our experience, not dissimilar in its proposed outcomes – although distant in form – from a famous special 1994 issue of “Architecture and Urbanism” entitled *Questions of perception. Phenomenology*

of architecture, in which Steven Holl, Juhani Pallasmaa, and Alberto Pérez-Gómez (2006) set out the role that human perception and phenomenological experience play in architecture. In agreement with August Schmarsow, who in his *Grundbegriffe der Kunstwissenschaft* (1905) saw architecture as *Raumgestaltung* (the authentic nucleus of the architectural gesture – the German art historian wrote – at the center of which lies the bodily and kinesthetic organization of people with their physiological and psychological laws), the meaning of the architectural work lies above all in its presence, “in the fact that it is there”, beyond any intellectualizing and aestheticizing conception. Although in fact rooted in language as a cultural form of representation, architecture (distinct from simple building), must allow itself to be exceeded.

As Pérez-Gómez affirms in his text (Holl *et al.*, 2006, pp. 22-23):

Rather than simply meaning ‘something’ art and architecture allow meaning to present itself. [Thus they] present something that can exist only in specific embodiments. They signify an increase in being, disclosing the ‘lighting’ that makes the world of things into objects, the event of becoming-into-being. [...] It is, first and foremost, of the world and our experience of it overwhelms us, [requiring] an abandonment of our selves for the other, an act whose final objective is our realization as embodied, imagining selves.

The meaning of architecture therefore requires our active participation, linked to lived experience: for Pérez-Gómez, it may be likened to the platonic idea of *Khôra*, a potential space, the receptacle in which form deploys its own action that, finding itself *between* being (substances) and becoming (phenomena), is removed from the *logos* and resists any conceptualization. It is at most “the space of dance”, of “choreo-graphy”, a “space for ‘contemplation’ and at same time set out for ‘participation’” (p. 18): it is precisely the “space of action” in recovering a new depth based on experience. This spatial substance, “infinitely dense and impenetrable” (p. 24), that is space and matter at the same time (“space-matter”), permits – Holl writes – an “Enmeshed experience. The merging of object and field” (pp. 44 and ff.), in which – Pallasmaa emphasizes – the boundaries between the outside world and the internal mental world are vague and blurred, since the specific task of architecture is “to create embodied existential metaphors that concretize and structure man’s being in the world” (p. 37).

About forty years have passed between Rasmussen’s book and the essays by Pérez-Gómez, Pallasmaa and Holl, and the path the two publications have taken is a long one. In fact, the focus of *Questions of perception* is the idea of an architecture of *resistance*, able to overcome the whole disciplinary debate connected to postmodernism with linguistic/semiological theories, deconstruction/deconstructivism, high-tech, environmentalism

and information theory. They are as many keys for interpreting the architectural project that – although aimed at providing possible responses to the drastic changes taking place and, in the crisis of the foundational *grands récits*, at reflecting the cultural pluralization and the manifold efferescence of reality – have ended up losing sight, as the authors write, of the “substance” of architecture, as a primary, primordial scene of human life, and thus indissoluble from our own experience and existence.

Although it is easy to point out how this conception of architecture – and of artistic expression in general – has distant roots that go back to the Romantic thought of the mid-18th century and then developed with the *Einfühlung* theories in Germany at the turn of the 20th century, it must still be emphasized that the recovery of the sphere of feeling and emotion develops within an authentic “paradigm shift” that has the “embodied” nature of every cognitive process at its center. Based on the body’s extension in its psycho-sensory totality, and on the polisensory and sensory-motor nature of our consciousness, since the 1980s the cognitive sciences and the sciences relating to the theory of mind have demonstrated that it is the way in which an individual is embodied that determines, in a continuously retroactive circle, the modes of action and of the environment on him or her. The body, then, marginalized in the platonizing philosophies of consciousness, appears to claim a new space on the theoretical level, giving origin to a new mind/body conception that, in appealing to phenomenological thought as well, moves in the direction opposite to any sterile dualism. In this renewed episteme, a prominent role is played by interdisciplinarity which, supported by different fields of study (from philosophy to cognitive psychology, from anthropology to sociology, from the neurosciences to aesthetics), is the only approach capable of overcoming any dichotomy, beginning with the traditional one – that reflects the inheritance of Wilhelm Dilthey (*Einleitung in die Geisteswissenschaften*, 1883) – between the natural sciences (*Naturwissenschaften*) and the human sciences (*Geisteswissenschaften*). The first ones, relying on a method based on “explaining” (*Erklären*), seek random connections and universal and necessary laws, in accordance with a nomothetic arrangement; the latter ones, based on “understanding” (*Verstehen*) and in particular on empathic understanding – *Einfühlung* – in its various articulations, are developed within the hermeneutical philosophical tradition and upon the idiographic nature of observation.

Unsurprisingly, it is interdisciplinarity that characterizes, in the broad exegesis of studies referred to, the latest book by American architect and critic Harry Francis Mallgrave, *From object to experience: The new culture of architectural design* (2018). After the 2013 publication of *Architecture and embodiment*, focusing mainly on the relationships between architecture and neurosciences, the book examines and broadens the perspective

of analysis, starting from the thinking of John Dewey and his consideration of how “the human organism is patterned physiologically, emotionally, psycho-sociologically, and intellectually by habits”. Sharing an idea of architecture “that responds to our bodies as well as our to capacity for empathy and imagination, one that understands the human and the natural as a shared continuum” (as Robinson writes in the foreword of Mallgrave’s book, 2018, p. XII), the author entrusts design with the possibility of creating a bridge between “biological sciences [and] new perspectives of philosophy, cultural studies, and human evolution, [in order] to provide the designer with a better understanding of who we are and how we actually engage the world” (Mallgrave, 2018, p. 5).

Nature and culture, mind and body, self and world: these are therefore sides of a single coin, founded upon psycho-sensory experience and, more aptly, human *feeling*. The factors contributing to what has recently been defined as an *emotional turn* or an *affective turn* (Lemmings and Brooks, 2014) doubtlessly include the progress made in the neurosciences, the resumption of phenomenological themes with the development of the “new phenomenology” and of atmospherological aesthetics, and, closely related to these, the rediscovery of empathy as a fundamental fact of human nature and perhaps the chief way in which understanding is organized in the consciousness of human action.

2. *Einfühlung* between aesthetics and phenomenology

The term *Einfühlung* (“empathy”) – which functions as an umbrella term for a set of categorical relationships that include identification, imaginative projection, fusion, penetration, reanimation, sympathizing, and simulating – is so dense with meanings and developments that it is difficult to reduce to a brief summary like this one.

We thus refer to recent studies investigating both its semantic richness and historical evolution (Boella, 2018, 2006; Donise, 2019; Pinotti, 2011; Rainone, 2005; Stueber, 2010, 2019), citing here only some of the canonical texts of the theory of *Einfühlung*, as a support for the reasons of the renewed interest in the empathic relationship, which after waning for much of the second half of the 20th century, has been gradually rediscovered since the 1980s, growing exponentially with the discovery of mirror neurons in the 1990s.

Aesthetics

Although certain authors of German Romanticism, who had used the verb *hinein fühlen* (“to feel inside”) to indicate a sympathetic experience

with nature (Herder, 1778; Novalis, 1798)¹, had begun to speak about empathy, the term *Einfühlung* – from *ein* (“in”, “inside”) and *Fühlung* (“feeling”), from *fühlen* (“to feel”), later translated into English as *empathy* (Titchener, 1909)² – came into being in 1873, with the book by the art historian Robert Vischer, titled *Über das optische Formgefühl*. His text, which owes a debt to previous aesthetological research by his father (the philosopher Friedrich Theodor Vischer, who had used the *hinein fühlen* formula to indicate the projection of human feelings onto the contemplated object), advocated the idea that art was identifying with the feeling in natural or artificial shapes, *animated* through a symbolic process. For R. Vischer, aesthetic pleasure therefore becomes the pleasure of *aisthesis*, of bodily feeling, and the empathic relationship is described as “pouring” our feelings into the object³, which becomes a symbol of one or more traits of the human being: courage, horror, serenity, fear, anguish, etc.

On a similar line (but moving away from the idea of a real physiological-corporeal correspondence typical of Vischer), Theodor Lipps – the psychologist who, at the dawn of the 20th century, was the first to attempt to build a unitary conceptual framework of *Einfühlung* starting from the two-volume *Ästhetik (Ästhetik: Psychologie des Schönen und der Kunst, 1903-1906)* and *Leitfaden der Psychologie (1903, 1906², 1909³)* and then continued with a substantial series of specific studies – maintained that the aesthetic object always has a psychic content that penetrates it thanks to empathy. Unlike Vischer, who makes it one mode of many, for Lipps empathy becomes the central theme of aesthetic theory.

In particular, Lippsian *Einfühlung* – theoretically underpinned by a sort of “internal imitation” – is conceived as a mechanism of psychological resonance that triggers a process of fusion, of “emotional participation” in the

1. In 1778, Johann Gottfried von Herder published an essay, *Vom Erkennen und Empfinden der menschlichen Seele: Bemerkungen und Träume*, in which we are asked to grasp the overall analogical structure of nature and the resonance among peers. Novalis, like Herder convinced that “feeling” is a medium between the self and the other by oneself, argues in his 1798 novel *Die Lehrlinge zu Sais* about the need to blend with all natural essences, through sensation and empathy (*sich hineinfühlt*).

2. Edward Bradford Titchener, publishing *Lectures on the experimental psychology of the thought-processes* in 1909, translates Lipps’s *Einfühlung* with the term *empathy* which, as emerges more clearly in his 1915 work *A Beginner’s psychology*, is defined as “the tendency to feel oneself into a situation”, differentiating it from the term “sympathy, which is feeling together with another”. It bears recalling that *sympathy* was a term already present, above all since the 18th century, to express, with Hume, a principle of human nature that influences our aesthetic taste and moral sentiments, and, with Adam Smith, the basis of moral assessment as a possibility of analogical understanding of the other.

3. See Stern 1898.

nature of the object itself, and as a general disposition towards the surrounding environment, thus becoming a foundation not just of aesthetics, but also of intersubjectivity itself, constituting, in the final analysis, a way of comprehending reality and to be emotionally characterized in the world.

As Anna Donise (2019, p. 25) maintains, for Lipps:

Empathy is one of the three sources thanks to which we know. The first is the perception that can be sensed, through which “I know things” about the world; the second is internal perception, that allows me to know “about myself”; the third is empathy, which enables me to know the “other-selves” and grasp the “objectivation of myself in an object different from me”. (1909, p. 222)

“The interesting element”, according to Donise (2019, p. 26), “is that although we are dealing with forms of objectivation of the life of the ego *in* the object, [these forms] ‘immediately appear to me as real objects’” (Besoli, 2002, p. 57), as if they were qualities within the object, rather than the projections of the subject. Consequently, the empathic relationship can no longer be ascribed simply to the paradigm of “hydraulic” pouring in keeping with Pinotti’s indication (2011, pp. 186 and ff.), but represents the outcome, albeit in a still ambiguous way, of two components: of what is “perceptibly given” and of “my activity. And activity is life. [...] Therefore, every object that exists for me as this given object [...] is necessarily and obviously penetrated by my life. And this is the most general meaning of empathy”, concludes Lipps (1906, p. 37).

Therefore, it is the things themselves (like the “other-selves”) that require our activity, in which this activity is not arbitrary, but necessary: it is a self-activation reawakened in me – today, we might say “as in a mirror” – by the datum, which nevertheless can leave us exposed to illusion and fallacy. This is why the evaluation of reason is needed, which, by “sanctioning” – as writes Lipps (1906, p. 37) – “the individual affirmations of sense perception, of memory, and that self-objectification, mutually correct one another”.

For Lipps, then, the range of notions referring to *Einfühlung* is quite vast. As Pinotti (2011, p. 46) again emphasizes, “called into question are the aesthetic, ethical, and gnoseological sphere; the concepts of sympathy, antipathy, and altruism; the processes of projection, of transfer, of fusion, of imitation”, becoming a highly complex term that, however, always remains on the side of the subject; while – this is the idea of some of Lipp’s young pupils, who approached the phenomenology of Husserl – it is also necessary to look at the sphere of the object, with its properties and its laws. It was Moritz Geiger, a student of Lipps in Munich and later of Husserl in Göttingen, who made this transition, emphasizing, in his 1911 essay *Zum Problem der Stimmungseinfühlung*, the difference between an empathic

relationship with other subjects and that pertaining to inanimate objects. While in the former case I can *empathize the feeling* that connotes the other, in the latter case the separation between the subjective side of experience (the effect a certain experience triggers in me) and the objective side (the characteristics I recognize in it) becomes fundamental. Already speaking about colors and landscapes in the introduction, Geiger draws a difference as simple as it is rich in consequences: saying “I feel cheerful in front of this landscape” is quite different from saying “this landscape is cheerful”. These two components – which, to the contrary, for Georg Simmel (1913) appear indissoluble in the *Stimmung* of a landscape – relate to one another in a “play of alternation”: “[an object’s] characteristics condition our sentimental life, which in turn influences the way in which the objects bearing those same characteristics appear to us” (Pinotti, 2011, p. 183). In this case, the empathic attitude allows us to escape both the objectifying ascertainment of the world *outside of me* (as theoretical argument would do), and the subjectifying conception centered upon *myself* (as a sentimentalist attitude would do), allowing us to grasp all the same a dual relationship, a polarization/oscillation between subject and object, but also, in relation to another human being, between empathizing and empathized, thus overcoming the idea of a simple projection, imitation, and identification with others.

Phenomenology

With its constant reference to the subjectivity that feels, it is in the nucleus of phenomenological thought that empathy becomes the possibility for a knowledge as awareness of the surrounding world, or of the *other than the self*.

Having seen in lived experience (*Erlebnis*), and therefore in the richness of perception, the place where things are manifested clearly to consciousness, phenomenology, starting from its founder Edmund Husserl⁴,

4. Although he did not dedicate a specific text to *Einfühlung* – in fact defining this term as “a mistaken word and a pitiful enigma” (*Formale und transzendente Logik: Versuch einer Kritik der logischen Vernunft*, 1929) –, Husserl made ample use of it in the pages devoted to intersubjective experience, from as early as *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie* (1913), and until *Cartesianische Meditationen und Pariser Vorträge* (1931). Holding as erroneous Lipps’s view of empathy as mimesis, due to the risk of confusing our own with others’ experiences, Husserl conceives of *Einfühlung* as an act of the broad family of *presentifications* (*Vergegenwärtigungen*), aimed at making present to oneself something that in fact is not present in front of our eyes. Presentifications are therefore memories, fantasies, hopes, fears, and, lastly, the empathic acts in which I bring to consciousness something that does not regard the actuality of my flow, but the experience of others (Donise, 2019, pp. 59-69). For a more in-depth analysis, see specialist texts.

in fact ushered in a path investigating the original, empirical truth consisting of phenomena, disposing us to describe the way in which they are offered to us in their constant and persistent – which is to say essential – structures. For Husserl, through the *epoché* (suspension of all theoretical and scientific pre-judgment) and the *eidetic reduction* (bringing the phenomenon to its original essence), the ways of perceiving are not determined by the perceiver's free will, but belong to the structure of his or her receptiveness (objectivity-for-subjectivity) in which the concrete, intersubjective world shared by people is given⁵. Not, then, the world of the natural sciences, which make it a mere set of objects detached from consciousness, nor the simple expression of our subjectivity, but a world whose "objectivity" is always part of a subjective reality – the life-world (*Lebenswelt*) – and springs from intersubjective agreement. Access to reality, then, is not only a consequence of perception, but also of the act that restores to us the existence of others and their perspectives – that is to say empathy, which in the life-world guides us in knowledge of reality and in encountering the other (Pinotti, 2011).

Converging on the otherness of the alter ego are all of Husserl's students who worked on the theme of empathy, starting with Edith Stein who, in her doctoral thesis (1916) *Zum Problem der Einfühlung* published in 1917, recognized in it "the foundation of all acts (emotive, cognitive, volitive, evaluative, narrative, etc.) by which we enter into a relationship with another person. "[It is], then, the specific way in which we 'encounter' the other" (Boella, 2006, p. 21). Starting from the importance given to lived experience, to the experience of the lived body (*Leib*), "living body" in Stein's words, and continuing and continuing with Husserl's idea of reality derived from the exchange of experience with others who, like us, perceive, albeit in different forms, the same world, Stein's program aimed at rehabilitating an ambiguous emotional experience, giving it equal dignity to the acts of consciousness that allow us to know things. In fact, in her thesis, she wrote: "Empathy [...] is the experience of foreign consciousness in general" (Stein, 1989, p. 11), specifying that, "as the basis of intersubjective experience, [it] becomes the condition of possible knowledge of the existing outside world" (p. 64). The keyword of the empathic act is "to become aware of" (*gewahren*), that for Stein is observing, the first perceiving, the noticing something that, suddenly emerging in front of me, opposes me as an object, but at the same time involves my feelings, i.e. my living body. It is an emotional experience that embraces the pain or joy of others, while always maintaining, at the base, the distinction

5. See Di Martino 2007.

between the self and the other. Its critical target was therefore certainly Lipps, whom she accused of having confused empathy with “unipathy” (*Einsföhlung*), signifying with that term the loss of one’s identity. However, her way of understanding *Einsföhlung* also deviated from her teacher Husserl. In fact, while for Husserl *Einsföhlung* was the function through which, starting from intersubjectivity, a pure objectivity could be admitted, the young disciple saw empathy as experience of the “I” constantly intertwined with the experience of the other, emphasizing the continuous transformation of a self that is moved between “I” and the other, between inside and outside: a movement that constitutes the “relationship” itself, “in which new possibilities of being in contact with the other are assayed” (Boella, 2006, p. 59). Following Boella, empathy thus corresponds with the “dimension of common living”.

Empathy is the phenomenon of our entering, on a daily basis, into a relationship with others, grasping their individuality as people, endowed with body and soul, with emotions, with motivations, with values, with a social, spiritual, and religious life. [...] And this means that the person’s essence is resolved neither in reflecting upon one’s acts, nor in the perception and consciousness of external, objective reality. It is therefore a moment that is a wellspring of opening, of participation in being. (pp. 14-15)

This opening to the world – a world in which we are constantly immersed – clearly also comprises the “things” that surround us. Objects, environments, situations, events, and so on – provided that, as Lipps had already pointed out, they are considered as *subjects* of relating and not as mere sensitive data – always present different *qualities*, some of which are not immediately ascribable to the sphere of meaning they belong to. In our daily experience, it is frequent to empathize with spaces or artifacts, recognizing in them qualities that go beyond pure materiality, and that elicit in us different emotions and feelings. As early as 1886, Wölfllin had pointed this out with reference to architecture and, in explaining how architecture could generate emotions or moods, had understood how forms are never neutral, but animated by our own bodily organization. Although not yet able to fully explain the phenomenon – “from the *expression* of form to the *impression* received by the observer” (De Matteis, 2021, p. 50) – Wölfllin understood that our experience produces *affects* on the experienced body, affects that the studies of *Gestaltpsychologie* has over time helped us clarify. It was above all the Gestaltists who defined some of our *lived experiences* in terms of qualities, and of “tertiary qualities” in particular. Observed objects or the spaces we move in doubtlessly have different “qualities”: alongside what are termed “primary qualities” (according to the definition provided from Galileo and on) like size, weight, hardness or shape, independently of the observer, there are

“secondary qualities”, like color, flavor, or odor, that are manifested in the relationship between the primary qualities and a subject endowed with a certain sensory apparatus; lastly, there are the “tertiary” or “figural qualities”, which is to say qualities that call the subject into question, without for this reason becoming subjective or relative to individual perception. The cheerfulness of yellow or the sadness of a landscape are experiences endowed with meaning, connected to our *feeling*, to affects, that, as Wölfflin emphasized, call into question the empathic relationship between world, body, and emotional dimension.

In the search for fundamental procedures for an *authentic* knowledge of reality, *Gestaltpsychologie* promotes a holistic vision of experience, no longer considered as a sum of sensations that are parceled and distinct, and then recomposed through associations, but constituted by the perceptive sets themselves, already organized in a meaningful fashion, in the conviction that a *whole* cannot be obtained by adding up the individual, isolated parts, but by knowing and conceiving the integrated structure of a totality. Thus, for example, the *physical form* of an object will be different from the *perceived form* that can change in relation to spatial orientation, the way the light hits it, the affective tonality of the colors, the dynamics of the shadows, and the atmospheric conditions of an environment: however, these are all factors that do not depend on the single individual (or his or her mood), but, albeit with different intensities, on the apperceptive characteristics of every human being, capable of grasping – beyond cultural and social differences and even some perceptive experiences established over time – the meaningful basis of our experience.

As Donise in fact emphasizes (2019, pp. 51-52):

Our empathic experiences have constant elements, and tell us that our relating with the surrounding world is structurally characterized in qualitative terms: objects appear cheerful to us, or sad, or frightening, or familiar, or disturbing. [These, then, are] qualities of the world that we recognize, precisely because we are subjects with given characteristics. They are not qualities *relativistically* connected to my single history, but *relationally* connected to my being a human being.

Precisely these qualities, that *move* our affective sphere until we ourselves are *moved*, were insisted upon by the “New Phenomenology” initiated by Hermann Schmitz with his *System der Philosophie* (1964-1980) and continued with dozens of books and essays thereafter, in which, starting from the phenomenon that by affectively involving us “cannot but be admitted” (Schmitz, 2019), he introduces the innovative concepts of “half-things” – among which Schmitz includes voice, wind, gaze, darkness, night, cold, to connote a hybrid between the thing, whose substantiality (or rather its persistence over time) is missing, and the quality of the thing – and of “atmosphere” to sharpen his conception of emotions understood

as feelings freed of the limitation of introjection and spatialized. On these themes, we will refer to others, wishing rather to emphasize here the extent to which our lived experiences are always characterized by qualitative elements – or, in the current aesthetic terminology, atmospherological elements – that, in being pre-categorical, pre-reflexive, and pre-cognitive, produce effects/affects, albeit with different nuances, on our “living body” or “felt body”. It is that body which, it bears recalling, in the phenomenological dimension, is the embodied subject, the first and original vehicle of communication with the world and center of spatial orientation, which is to say the wellspring condition of all of our lived experiences, which therefore has, in “understanding” – and in particular in empathic understanding as co-perception and co-partnership – the way, and perhaps the most pertinent way, to grasp the coexistence between subject and object, self and other, internal and external, that is knowledge of the other, the constitution of the objective world, the acquisition of consciousness.

This is what is stated in *Phenomenology of perception* (1945) by Maurice Merleau-Ponty, who, in his work, continuously recalls the terms of the relationship between the own-body and the world perceived through *feeling*, which is the foundation of the perceiving subject as “inherence to the world”.

In fact, Merleau-Ponty writes:

[The] perception of the world is simply an expansion of my field of presence without any outrunning of the latter’s essential structures, and the body remains in it but at no time becomes an object in it. [...] The thing [therefore] is inseparable from a person perceiving it, and can never be actually *in itself* because its articulations are those of our very existence, and because it stands at the other end of our gaze or at the terminus of a sensory exploration, which invests it with humanity. (2002, p. 354; p. 373)

And to give consistency to reality, differentiating “real” perception from hallucinations, he adds: “The perceived world is not only *my* world, [rather] the correlative [...] of any consciousness *which I can possibly encounter*” (p. 394). The point of departure is Husserl, in recognizing the intersubjective condition in which we know the world, and in the priority of perception, but Merleau-Ponty, instead of turning it inwardly, directs it towards the pre-dichotomous, preceding the establishment of the distinction between subject and object, consciousness and world.

Inside and outside are inseparable. The world is wholly inside and I am wholly outside of myself. [...] Insofar as, when I reflect on the essence of subjectivity, I find it bound up with that of the body and that of the world, this is because my existence as subjectivity is merely one with my existence as a body and with the existence of the world, and because the subject I am, when taken concretely, is inseparable from this body and this world. (pp. 474-475)

In Merleau-Ponty's philosophy, the return to the experienced world indicates an immersion that, preceding the act of reflection, does not construct the world, but rather reveals it; at the same time, perception is inserted into the existential dimension of concrete living that, anticipating reflection, grasps an immanent sense within the perceptible before any judgment. As Palmiero and Borsellino emphasize this immanent sense may be understood as:

Form, structure, *gestalt*, [...], "*intelligibility in its nascent state*". [...] The world that pre-exists rational thought, as it has yet to be reflected, is confused, ambiguous, obscure, and twisted, but neither formless nor deconstructed. The perceptible that is encountered prior to its objectivation [is, in fact] in itself endowed with structure. (2014, p. 43)

Here, *Gestaltpsychologie* offers Merleau-Ponty an important suggestion: "[The] outlining of the object of perception as a *gestalt* structure, and therefore as a unit that cannot be reduced to its parts, completely inevitably entails that there is also a background against which form can stand out" (pp. 43-44), creating focused and peripheral vision at the same time (Pallasmaa, 2005). Thus, as Pallasmaa points out (2005, p. 36), we can attribute the delineating of the figure to rational consciousness, that is also oculocentric vision and "*assertoric gaze* [which] is narrow, dogmatic, intolerant, rigid, fixed [...] and unmoved"; while the understanding of the background would be attributed to another type of consciousness, that constitutes the horizon of unconsciously acquired knowledge and that may be defined as "*alethic gaze* [which] is multiple, pluralistic, [...] contextual, inclusionary, horizontal and caring". It is this latter consciousness, which Merleau-Ponty defines as "effective intentionality", essentially motory, pre-reflexive, and impossible to thematize (compared with the former one, defined as "intentionality of act", which is to say voluntary and that can be thematized), that constitutes "the bodily consciousness, the embodied-perceiver, the embodied subject" (Palmiero and Borsellino, 2014, p. 45).

It is therefore no accident that Merleau-Ponty represents a fundamental passage for current scientific, philosophical, and aesthetological developments. His philosophy sets an important precedent in atmospherological theories – since atmospheres are the pre-reflexive, pre-dimensional, pre-dualistic *prius* preceding the subject/object distinction, although they are defined in the perspective of wholly overcoming psychic introjection – while also emphasizing a concordance of views, in the circularity of the organism-environment relationship, with the ecological psychology of James Gibson (1979). In fact Gibson's theory of *affordances* aimed to underscore the opportunities (or hazards) that an environment offers to the organism

in terms of (motory) possibilities raised, thereby activating, in reciprocal interaction, a direct connection between perception and possibility of action, which actually eliminates the mediation of the semantic system, that is to say conceptual elaboration. Last but not least, the very importance of perception as original mode of interacting with the environment through the body constitutes an “enlightened” anticipation for the developments of “embodied cognition” which, in the indissoluble union between the subject’s body and the world’s body, deepens the sense of perception itself by promoting a conceptualization of consciousness as “embodied action” and, in the specific sphere of the empathic relationship, as “embodied simulation”, deemed to lie at the basis of an implicit form of understanding of objects, of physical space, and of our interaction with others.

3. Radical embodiment: from empathy to embodied simulation

We have seen that empathy – or, rather, empathies, as a number of scholars have emphasized, given the concept’s semantic plurality and stratification⁶ – has at its basis a form of experience hinged on emotional participation, in sharing, which is to say in overcoming distance. “Putting yourself in another’s shoes” means not stopping outside (as a reflection of an interior), requiring rather an imaginative projective operation that, in the most recent elaborations of theory of mind – meaning by this the ability to attribute mental states, beliefs, intentions, desires, emotions, and knowledge to oneself and others – has been recognized above all in our capacity for “simulation”. This is *simulation theory* which, by recovering the semantic and epistemological theses of Willard Van Orman Quine already proposed in *Word and object* (1960) and developed during the thirty years thereafter – in which use was made of the method of empathic understanding as an “*instinctive, natural, and psycho-biologically grounded* proceeding at the root of the attribution of propositional attitudes” (Rainone, 2005, p. 192) – was affirmed starting from the mid-1980s, in particular with the works by Robert M. Gordon (1986),

6. Empathic responses are quite differentiated not only from the aesthetic, ethical, and philosophical standpoint (see Boella 2018 and Donise 2019), but also from a scientific perspective: brain visualization studies, in fact, have gradually revealed the existence of multiple areas involved in the empathic response process, such as limbic areas, motor and sensory areas, and prefrontal areas. The set of these areas leads to a more precise differentiation of the various levels of empathy or of related behaviors: from unipathy to emotional contagion, and to full-blown empathy, marked by the conscious self/other distinction and by the probable involvement of the parietal areas.

Jane Heal (1986), and Alvin I. Goldman (1989, 2006)⁷. According to this theory, understanding of the other (recently defined as “mindreading”, a term that groups together various theories of intentional attribution, which is to say of the reading of the mind of the other and predicting behavior) does not depend on a chain of inferences listed in a logical succession of reasoning of “if...then” type, characteristic of the functionalist approach of *theory* of mind known as *theory*. It depends, rather, on “an explicitly empathic conception of predicting and explaining behavior [...] based on a counterfactual proceeding of *pretending* (simulating) by the interpreter, from the point of view and the mental state of an agent” (Rainone, 2005, p. 17). This is a cognitive process – extendible in its principles also to our interaction with inanimate objects and with the spaces that surround us, conceived as *subjects*, as we emphasized early – founded chiefly upon imitation and imagination, which may be defined as *reliable* for the proportion of “real” knowledge it can produce.

According to Antonio Rainone (2005), simulation theory:

Represents today, in its various versions [...], the most up-to-date form of traditional empathic understanding [...]. A legitimate object of study of cognitive science, empathic understanding [...], presenting itself as a form of consciousness alternative to that based on laws or cause-and-effect relationships, is considered a pre-linguistic, pre-theoretical, and instinctive epistemic procedure inherent in the cognitive architecture and, in [its] most recent versions [...], as a neurocerebral activity, common to humans and animals, that evolved over the course of phylogenesis.

Mirror neurons and empathy

It is not by chance that empathy has been rediscovered, as some books note (among others, Rainone, 2005; Stueber, 2010), in relation to the dissemination of the results of experimental brain research, and that interest in it has spread to various sectors of knowledge in connection with the success of the studies on *mirror neurons* (also defined, in fact, as “empathy neurons”). Discovered in the early 1990s, originally in the ventral premotor cortex (area F5) of macaques (Rizzolatti *et al.*, 1996) and then of humans (Rizzolatti and Craighero, 2004; Rizzolatti and Sinigaglia, 2008, 2019), mirror neurons are said to constitute, on the neural plane – through the resonance/mirroring mechanism–, “that modality of understanding which, prior to any form of conceptual and linguistic mediation, gives substance to our experience of others” (Rizzolatti and Sinigaglia, 2008, p. 192).

7. Referring to specialist texts, mention is made of the following, among others Goldman 1989, 1992, 2006, 2009; Gordon 1986; Heal 1989.

While deferring to specialist studies given the issue's complexity, it is sufficient here to recall that during the 80-90s, the Parma laboratory led by Giacomo Rizzolatti described two classes of neurons (canonical and mirror), whose fundamental characteristic is bimodality: that is to say, they are neurons endowed with both motor and visual properties. This bimodality is the particular mark of the canonical neurons, which are activated in the presence of graspable objects, thereby making it possible to codify the representation of an action, in the event both that it is performed, and that it remains in force. Similarly, to the organism-environment relationship formulated by Gibson (1979) through the concept of *affordance*, the motor scheme presents itself as the intermediate term between the execution of an action (explicit simulation) and its representation (implicit simulation), thereby contradicting the classic sensorimotor logic according to which human actions are generated solely as a response to sensory stimulation. Also bearing witness to this close connection between perception and action are the mirror neurons, which enter into operation both during the execution of finalized actions, and – and here lies the unique feature – in observing an action performed by others, “as if” it had been performed personally, recognizing the intentionality behind it (Fogassi *et al.*, 2005). The “function of mirror cells [would therefore lie] not so much in the observed action as in the intention associated with the action, [serving] for understanding the purpose more than for using the movements required to achieve it” (Palmiero and Borsellino, 2014, p. 89). It follows that the action is a vehicle of meaning: the object, like the space we move in, acquires meaning by virtue of the relationships that the agent has woven with it; that is to say, relationships arising, as has been demonstrated, even when the interaction between agent and object is not visible (but audible, for example), therefore including the representation of the action, as well as the emotion of others, within a multimodal, bodily, and highly interconnected system.

It is precisely to account for the high level of connections involved on the neural level every time we relate to the world that we speak today of the “mirror neurons system” (MNS) to express the complexity of “shared circuits” said to be the precondition for “doing and understanding” every possibility, both motor and emotive, in the relationship between subject and object or among different subjects, ascribing to their function (and to their evolution over time) the understanding of linguistic expressions as well. As has been emphasized (Gallese and Lakoff, 2005), in fact we conceptualize objects not only abstractly through symbols, but also by perceptively simulating the way in which they must be touched, manipulated, or used. This suggests that the semantics of the language is to a great degree founded upon a precise, basic mode of operation of the brain, capable of responding directly and pre-reflexively to the perception of

the acts and emotional states of others, precisely like *feeling* on one's own body the characteristics of the surrounding spaces, making it possible to code "the sensory information directly in emotional terms" (Rizzolatti and Sinigaglia, 2008, p. 186).

In particular, in architecture thought becomes body – not just metaphorically – in this way determining perceptive symbols that can evoke highly influential metaphorical mappings, like the "conceptual metaphors" of George Lakoff and Mark Johnson (1980, 1999), who draw a projective correspondence between emotional and spatial dimension (e.g. "I'm feeling *down*", "He is *under* my control", "I am *on top of* situation", etc.), thus allowing us complex, abstract concepts to be comprehended thanks to connection with our own experience. In fact, as Mallgrave points out (2013, p. 80), "much of our conceptual knowledge is embodied, in the sense that it is neurologically mapped in the sensorimotor system that controls all conscious movements and keeps track of our bodily sensations".

We might say, then, that the discovery of mirror neurons and the modalities underlying their activation constitutes the neurobiological apex of that reassessment of the body and of its emotions in cognitive and interpersonal processes initiated in the 1980s, that takes the name of *embodied cognition*, thus emphasizing – albeit in the various articulations of *4E cognitive science* (*Embodied, Embedded, Enacted, Extended*)⁸ – the "bodily format" of our consciousness, a format that takes place in interaction with objects, with environments, and with others. Opposing the mind-computer analogy that also characterizes classical cognitive science which hinges upon the idea of the mind as an abstract entity or substance independent from the body, the theoretical background from which embodied cognition⁹ rises "cannot be reduced to a change of priority (from

8. *Embodied cognition* holds that all cognitive processes, even the most abstract ones, are distributed on the same neural substrate; *embedded cognition* situates cognitive processes in the environment (natural, historic, social, and cultural), in such a way that action, similarly to Gibson's ecological psychology, is increasingly aimed at reconfiguring the relationship between the individual and the environment; *enacted cognition* places central importance on the dynamic interaction between an agent and the environment in which the agent moves (in line with Gibson's *affordances*), and considers affectivity as a primary mode in the interaction with objects and the environment; *extended cognition* analyzes the mind's function in relation to all external supports (technological and otherwise) (Caruana and Viola, 2018, pp. 111-113; Menary, 2010; Palmiero and Borsellino, 2014, pp. 67-83, who use partially different terminologies).

9. It should be noted that *embodied cognition* starts from the important work by Varela, Thompson and Rosch, *The embodied mind: Cognitive science and human experience* (1991), which, as Thompson writes in the revised edition (2016, p. XXI),

formal to material), or to a simple change of format (from digital to analogue); rather, it is deepened through a revisitation of perception, [recognizing in it] the bond that links the body of the subject to the body of the world” (Palmiero and Borsellino, 2014, p. 67). This means that it is the way in which an organism is embodied that constitutes the basis for understanding the mind, since all the cognitive processes are distributed and immediately implemented on the same neural substratum responsible for perception and action and, in the *enacted* perspective, emerge from the dynamic interaction between an agent and the environment in which the agent moves.

In this direct interrelationship, founded upon an unconscious and immediate mechanism that renders circular – and no longer sequential or hierarchical – the relationship between perception, action, and thought, we may say that “*the brain that acts is also a brain that understands*”, while also characterizing in its operation the social dimension in the relationship between one’s own organism and the body of others.

Understanding the other is not, in fact, different from what we personally experience when we act, desire, and feel emotions: according to Rizzolatti and Sinigaglia, the root of empathy lies precisely in this mechanism of reflection, by which the other is experienced as *another self*.

The instantaneous understanding of the emotions of others, rendered possible by the emotional mirror neuron system, is a necessary condition for the empathy which lies at the root of most of our more complex inter-individual relationships. [...] Whichever cortical areas are involved, whether motor or visceromotor centers, and whatever the type of mirroring induced, [...] the mirror neurons systems then provided us with a base from which to investigate the cerebral processes responsible for the vast range of behavior that characterizes our daily existence, and from which we weave the web of our social and inter-individual relations. (2008, pp. 190-193)

“*fuse the horizons* of cognitive science, phenomenology, and Buddhism in a new and larger understanding. On the one hand, we aimed to enlarge the horizon of cognitive science to include lived, human experience [...]. On the other hand, we aimed to enlarge the horizon of human experience to include insights into cognition, the body, and the self from cognitive science”.

However, if the mirror system of emotional mirroring, or of “simulation” variously defined as “internal imitation” (Stueber, 2010), “immediate resonance” (Gallese and Goldman, 1998), and “intentional sync” (Gallese, 2006), constitutes the fundamental prerequisite for “understanding” otherness on the basis of a shared affective experience, it is difficult to think of reducing our own intersubjective or spatial experience to its operation. “The neural architecture of empathy is complex, and” – as Boella (2018, p. 31) points out – “although affective resonance performs an important role, other cerebral functions are involved in creating and modulating the empathic responses which, moreover, are modified over the course of life”. Precisely for this reason, to account for the complexity that characterizes our relationship with the world, or our social interactions, theorists of mind have distinguished two types of empathy: the former, defined as “basic empathy” or “affective empathy”, or “empathic involvement” (positioned in the anterior insula, medial anterior cingulate cortex), has a perceptive-emotive nature, and triggers a vicarious response, which is to say an analogous sentiment or an impulse for imitation; the latter, defined as “reconstructive empathy”, “cognitive empathy”, or even “change of perspective” (positioned in the ventromedial prefrontal cortex, superior temporal sulcus), has a cognitive nature and regards activities that require attention, memory, and imagination (Boella, 2018; Rainone, 2005). The distinction between these cerebral areas affected by empathy, coded in terms of low-level processes (*low level: mirroring*) and high-level processes (*high level: mentalizing*), not only offers a theoretical arrangement both of automatic and involuntary processes, and of the complex mental activities required in order to know and explore the world and the other than oneself; it also allows to understand the multiple forms in which empathy can be given in real life. In fact, it is difficult for the two processes to appear exclusive: rather, in most cases, there will be a simultaneous presence and, presumably, a reciprocal interaction between the two, restoring to empathy that semantic stratification – at times difficult to grasp – that characterized it from the beginning, both in aesthetic implications and in phenomenological textures.

The perceptive model of embodied simulation

Vittorio Gallese, the neurophysiologist who, in Rizzolatti’s team, most developed the philosophical and epistemological implications of the discovery of mirror neurons, has on a number of occasions stressed that these neurons provide the subject only with “a direct, automatic, non-predicative, and non-inferential mechanism” of simulation. This mechanism, by involving the activation of the observer’s corresponding motor

and visceromotor areas, is defined as “embodied” – *embodied simulation*¹⁰ – both in relation to the various forms of social cognition, and in aesthetic experiences, in which our natural propensity for mimicry is manifested at the highest level. “Historical, cultural and other contextual factors do not preclude the importance of considering the neural processes that arise in the empathetic understanding of visual artworks” (Freedberg and Gallese, 2007, p. 197) and, however, if embodied simulation “is essential to understanding the effectiveness both of everyday images and of works of art” (p. 97), like sharing, on the level of experience, the mental states of others, it is only its basis. “According to our proposal, empathy is the outcome of the natural tendency to experience our interpersonal relations fundamentally at the implicit level of intercorporeality: that is, at the level of the mutual resonance of intentionally meaningful sensory-motor behaviors” (Gallese and Gattara, 2017, p. 167). In spite of this, to speak appropriately of empathy – both in interpersonal relationships and in the experience of space or in the contemplation of an object – “we will have to pass [...] from studying the human *mind* to studying human *minds*” (Gallese, 2007a), by focusing on the first-person aspects of experience and analyzing the personal characteristics of the individual subjects of experience (Gallese, 2009a). If, then, the embodied simulation may “be considered as the functional correlate of empathy” (Gallese, 2007a) that “makes it possible to leave the body while remaining in it” (Gallese, 2013), to speak of a full-blown intersubjective experience, we have to look to a broader overall theory – indicated by Gallese as “shared manifold hypothesis” (Gallese, 2001, 2009a), generated by embodied simulation – which involves the phenomenological plane of the subject, the only one that makes understanding of the other possible, after the sub-personal level (neural circuits) and the functional level (simulation of “as if” processes). The danger of an “ontological reductionism that reifies the subject in a mass of neurons [...], vitiated besides by an excessive confidence in brain imaging techniques”, is in fact always present, “if it is not accompanied by a phenomenological analysis of the perceptive, motor, and cognitive processes”, restarting from the “role that the living body plays in constituting our experience of things and of others” (Gallese, 2013, pp. 2-3). To this convergence – already set

10. The concept of “embodied simulation” differs from that of “standard simulation” because, Gallese writes, in the latter “the subject voluntarily places him or herself in the other’s shoes, [to recreate] in him or herself, also with imagination, the mental states themselves. [...] On the other hand, in embodied simulation, there is absolutely no inference or introspection, but simply an automatic, unaware and pre-reflexive reproduction of the mental states of the other” (Gallese et al., 2006, p. 556). The concept of embodied simulation is proposed by Gallese in numerous research articles on the subject, as referred in the bibliography.

out by Francisco Varela in “neurophenomenology”, “to designate a quest to marry modern cognitive science and a *disciplined approach* to human experience” (Varela, 1996, p. 330) – Gallese entrusts the prospects of future developments, also to grasp, in the aesthetic experience, an integrated model between the sciences of nature and the sciences of humans, which is to say between explaining in third person and understanding in first person, starting from the perceptive system humans are endowed with. When looking at something that is the fruit of human creativity, be it a painting, a sculpture, a film, or an architectural space, “I am involved in this perception with much more than my own visual system, [because] I fundamentally engage my emotive system, my tactile system, my motor system. So we are synesthetic [...] 24 hours a day” (Robinson, 2018, p. 82). This process, in which the individual opens towards things and things at the same time *are given* to the individual, includes imagination and memory: the former because, as the cognitive sciences have demonstrated, “doing something is much more similar to imagining doing something” (p. 82); and the latter because, starting from “procedural memory, which is an enormous part of the so-called cognitive and unsuppressed unconscious”, its influence is relevant for the purposes of the perception of the so-called “outside world” (p. 84). The primacy of perception, by its very relational and pragmatic nature, in which intersubjectivity becomes the foundation of the human condition, is the inheritance from Husserl and Merleau-Ponty, reinterpreted by Gallese in light of the developments of the cognitive neurosciences, which “have allowed us to understand how the boundary between what we call ‘real’ and the imaginary and imagined world is much less clear than one might think. To see and to imagine seeing, to act and to imagine acting, to experience an emotion and to imagine it, are based on the activation of brain circuits that are in part identical” (Gallese, 2013, p. 14), in which, “like a mirror”, the *self*, the *other*, and the *world* illuminate and build one another, recognizing in this reciprocity the original and foundational way of our understanding, above all empathic, that acts at the basis of our existence.

Bibliography

- Besoli S., Manotta, M. and Martinelli, R. (eds.) (2002) “Una scienza pura della coscienza: l’ideale della psicologia in Theodor Lipps”, *Discipline filosofiche*, 12(2), pp. 47-62.
- Boella, L. (2006) *Sentire l’altro: Conoscere e praticare l’empatia*. Milan: Raffaello Cortina.
- Boella, L. (2018) *Empatie: L’esperienza empatica nella società del conflitto*. Milan: Raffaello Cortina.

- Braghieri, N. (2006) "L'uomo che amava gli orologi a cucù", in Rasmussen, S.E., *L'architettura come esperienza*. Bologna: Pendragon, pp. 10-34.
- Caruana, F. and Viola, M. (2018) *Come funzionano le emozioni*. Bologna: Il Mulino.
- De Matteis, F. (2021) *Affective spaces: Architecture and the living body*. London: Routledge.
- Dilthey, W. (1883) *Einleitung in die Geisteswissenschaften: Versuch einer Grundlegung für das Studium der Gesellschaft und der Geschichte*. Leipzig: Duncker and Humblot.
- Di Martino, C. (2007) "Esperienza e intenzionalità nella fenomenologia di Husserl", *Memorandum*, 13, pp. 32-52.
- Donise, A. (2019) *Critica della ragione empatica: Fenomenologia dell'altruismo e della crudeltà*. Bologna: Il Mulino.
- Fogassi, L., Ferrari, P.F., Gesierich, B. et al. (2005) "Parietal lobe: from action organization to intention understanding", *Science*, 308(5722), pp. 662-667.
- Freedberg, D. and Gallese, V. (2007) "Motion, emotion and empathy in aesthetic experience", *Trends in cognitive sciences*, 11(5), pp. 197-203.
- Gallese, V. (2001) "The shared manifold hypothesis: from mirror neurons to empathy", *Journal of Consciousness Studies*, 8(5-7), pp. 33-50.
- Gallese, V. (2003) "The roots of empathy: The shared manifold hypothesis and the neural basis of intersubjectivity", *Psychopathology*, 36(4), pp. 171-180.
- Gallese, V. (2005) "Embodied simulation: from neurons to phenomenal experience", *Phenomenology and the Cognitive Sciences*, 4, pp. 23-48.
- Gallese, V. (2007a) "Dai neuroni specchio alla consonanza intenzionale. Meccanismi neurofisiologici dell'intersoggettività", *Rivista di Psicoanalisi*, 1, pp. 197-208.
- Gallese, V. (2007b) "Before and below "theory of mind": embodied simulation and the neural correlates of social cognition", *Philosophical Transactions of the Royal Society of London B Biological Science*, 362, pp. 659-669.
- Gallese, V. (2009a) "Neuroscienze e fenomenologia", in *XXI Secolo*. Rome: Istituto della Enciclopedia Treccani, pp. 171-182.
- Gallese, V. (2009b) "Mirror neurons and the neural exploitation hypothesis: from embodied simulation to social cognition", in Pineda, J.A. (ed.) *Mirror neuron systems: The role of mirroring processes in social cognition*. Berlin: Humana Press, pp. 163-190.
- Gallese, V. (2013) "Tra neuroni ed esperienza. Le neuroscienze e la genesi di soggettività e intersoggettività", in Ariano, R., Azzoni, V. and Maglio, M. (eds.) *Che cos'è un soggetto: Tra comune e singolare*. Sesto San Giovanni: Mimesis, pp. 147-162.
- Gallese, V. and Gattara, A. (2017) "Embodied simulation, aesthetics, and architecture: an experimental aesthetic approach", in Robinson, S. and Pallasmaa, J. (eds.) *Mind in architecture: Neuroscience, embodiment, and the future of design*. Cambridge: The MIT Press, pp. 161-179.
- Gallese, V. and Goldman, A.I. (1998) "Mirror neurons and the simulation theory of mind-reading", *Trends in Cognitive Sciences*, 2(12), pp. 493-501.
- Gallese, V. and Lakoff, G. (2005) "The brain's concepts: the role of the sensory-motor systems in reason and language", *Cognitive Neuropsychology*, 22, pp. 455-479.
- Gallese, V., Keysers, C. and Rizzolatti, G. (2004) "A unifying view of the basis of social cognition", *Trends in Cognitive Sciences*, 8(9), pp. 396-403.

- Gallese, V., Migone, P. and Eagle, M.N. (2006) "La simulazione incarnata: i neuroni specchio, le basi neurofisiologiche dell'intersoggettività ed alcune implicazioni per la psicoanalisi", *Psicoterapia e Scienze Umane*, 3, pp. 543-580.
- Geiger, M. (1911) "Zum Problem der Stimmungseinführung", *Zeitschrift für Ästhetik und allgemeine Kunstwissenschaft*, 6, pp. 1-42.
- Gibson, J.J. (1979) *The Ecological approach to visual perception*. Boston: Houghton Mifflin.
- Goldman, A.I. (1989) "Interpretation psychologized", *Mind and Language*, 4, pp. 161-185.
- Goldman, A.I. (1992) "In defense of the simulation theory", *Mind and Language*, 7, pp. 104-119.
- Goldman, A.I. (2006) *Simulating minds: The philosophy, psychology and neuroscience of mindreading*. Oxford and New York: Oxford University Press.
- Goldman, A.I. (2009) "Mirroring, mindreading and simulation", in Pineda, J.A. (ed.) *Mirror neuron systems: the role of mirroring processes in social cognition*. New York: Humana Press.
- Gordon, R.M. (1986) "Folk psychology as simulation", *Mind and Language*, 1, pp. 158-171.
- Gregory, P. (2018) "Affective spaces in urban transformation's contexts", *Journal of Civil Engineering and Architecture*, 12, pp. 563-572.
- Heal, J. (1986) "Replication and functionalism", in Butterfield, J. (ed.) (1986) *Language, Mind, and Logic*. Cambridge: The MIT Press, pp. 135-150.
- Herder, J.G. von (1778) *Vom Erkennen und Empfinden der menschlichen Seele: Bemerkungen und Träume*. Riga: J.F. Hartknoch.
- Holl, S., Pallasmaa, J. and Pérez-Gómez, A. (2006) *Questions of perception: Phenomenology of architecture*. San Francisco: William Stout.
- Husserl, E. (1913) *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*. Halle: Niemeyer.
- Husserl, E. (1929) *Formale und transzendente Logik: Versuch einer Kritik der Logischen*. Halle: Niemeyer.
- Husserl, E. (1931) *Cartesianische Meditationen und Pariser Vorträge*. Haag: M. Nijhoff.
- Lakoff, G. and Johnson, M. (1980) *Metaphors we live by*. Chicago: The University of Chicago Press.
- Lakoff, G. and Johnson, M. (1999) *Philosophy in the flesh: The embodied mind and its challenge to Western thought*, New York: Basic Books.
- Lemmings, D. and Brooks, A. (2014) "The Emotional turn in the humanities and social sciences", in Lemmings, D. and Brooks, A., *Emotions and social changes: Historical and sociological perspectives*. New York: Routledge, pp. 1-16.
- Lipps, T. (1903) *Ästhetik: Psychologie des Schönen und der Kunst*. Hamburg: Leipzig.
- Lipps, T. (1906) "Einfühlung und ästhetischer Genuß", *Die Zukunft*, 54, pp. 100-114.
- Lipps, T. (1909) *Leitfaden der Psychologie*. Leipzig: Engelmann, pp. 222-241.
- Mallgrave, H.F. (2013) *Architecture and embodiment: The implications of the new sciences and humanities for design*. London: Routledge.
- Mallgrave, H.F. (2018) *From object to experience: The new culture of design*. London: Bloomsbury.
- Menary, R. (2010) "Introduction to special issue on 4E Cognition", *Phenomenology and the Cognitive Sciences*, 9, pp. 459-463.

- Merleau-Ponty, M. (2002) *Phenomenology of perception*. London: Routledge.
- Pallasmaa, J. (2005) *The Eyes of the skin: Architecture and the senses*. London: John Wiley and Sons.
- Palmiero, M. and Borsellino, M.C. (2014) *Embodied cognition: Comprendere la mente incarnata*. Fano: Aras.
- Pinotti, A. (2011) *Empatia: Storia di un'idea da Platone al postumano*. Rome and Bari: Laterza.
- Quine, W.V. (1960) *Word and object*. Cambridge: The MIT Press.
- Rainone, A. (2005) *La riscoperta dell'empatia: Attribuzioni intenzionali e comprensione nella filosofia analitica*. Naples: Bibliopolis.
- Rasmussen, S.E. (1962) *Experiencing architecture*. Cambridge: The MIT Press.
- Rizzolatti, G., Fadiga, L., Gallese, V. and Fogassi, L. (1996) "Premotor cortex and the recognition of motor actions", *Cognitive Brain Research*, 3(2), pp. 131-141.
- Rizzolatti, G. and Craighero, L. (2004) "The mirror-neuron system", *Annual Review of Neuroscience*, 27, pp. 169-192.
- Rizzolatti, G., and Sinigaglia, C. (2008) *Mirrors in the brain: How our minds share actions and emotions*. New York: Oxford University Press.
- Rizzolatti, G. and Sinigaglia, C. (2019) *Specchi nel cervello: Come comprendiamo gli altri dall'interno*. Milan: Raffaello Cortina.
- Robinson, S. and Pallasmaa, J. (eds.) (2017) *Mind in architecture: Neuroscience, embodiment, and the future of design*. Cambridge: The MIT Press.
- Robinson, S. and Gallese, V. (2018) "Dialogo tra Sarah Robinson e Vittorio Gallese", *Intertwining. Unfolding Art and Science*, 1, pp. 79-93.
- Schmarsow, A. (1905) *Grundbegriffe der Kunstwissenschaft: Am Übergang vom Altertum zum Mittelalter*. Leipzig and Berlin: B.G. Teubner.
- Schmitz, H. (2019) *New Phenomenology: A brief introduction*. Milan: Mimesis International.
- Simmel, G. (1913) "Philosophie der Landschaft", *Die Guldenkammer*, 3(2), pp. 635-644.
- Stein, E. (1989) *On the problem of empathy*, vol. III, *The Collected works of Edith Stein*, Washington, ICS Publications.
- Stern, P. (1898) *Einfühlung und Association in der neueren Ästhetik: Ein Beitrag zur psychologischen Analyse der ästhetischen Anschauung*. Hamburg: Leopold Voss.
- Stueber, K.R. (2010) *Rediscovering empathy: Agency, folk psychology, and the human sciences*. Cambridge: The MIT Press.
- Stueber, K.R. (2019) "Empathy", in Zalta, E.N. (ed.) *The Stanford Encyclopedia of Philosophy*. Available at: <https://plato.stanford.edu/cgi-bin/encyclopedia/archinfo.cgi?entry=empathy>.
- Titchener, E.B. (1909) *Lectures on the experimental psychology of the thought processes*. New York: Macmillan.
- Titchener, E.B. (1915) *A Beginner's psychology*. New York: Macmillan.
- Thompson, E. (2016) "Introduction to the revised edition", in Varela, F., Thompson, E. and Rosch, E., *The Embodied mind: Cognitive science and human experience. Revised edition* Cambridge: The MIT Press, pp. XVII-XXXIII.
- Varela, F., Thompson, E. and Rosch, E. (1991) *The Embodied mind: Cognitive science and human experience*. Cambridge: The MIT Press.
- Varela, F. (1996) "Neurophenomenology: A methodological remedy for the hard problem", *Journal of Consciousness Studies*, 3(4), pp. 330-349.
- Vischer, R. (1873) *Über das optische Formgefühl: Ein Beitrag zur Ästhetik*. Leipzig: Hermann Credner.