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THE SENSE OF MOVEMENT

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Many philosophers hold that there is a special relationship between the touch sense and belief about reality. The figures of speech of ordinary English reflect such a relationship. It is less appreciated that there is no touch without movement, and this paper therefore discusses the sense of movement. Sometimes called a “sixth sense”, this sense links sensation to intuition – a “feel” for “the real”. The paper outlines pivotal aspects of the history of Western ideas about the sense of movement (including the muscular sense or kinaesthesia) in relation to claims about knowledge of reality. This history “touches on” awareness of being alive and being embodied. I emphasise in particular the contribution of the analysis of sensations from Condillac, through Destutt de Tracy to Maine de Biran for the history of movement awareness as essentially double, action-resistance. The conclusion turns to the work of Husserl as the authority for modern phenomenological analysis linking the sense of movement to judgment about ‘reality’.

Keywords: touch sense, kinaesthesia, theory of knowledge, Maine de Biran, Husserl

The tactile sense has sometimes even been called the true sense of reality... and an epistemological primacy over all other senses is often imputed to it.

*Ernst Cassirer*¹

The English language is full of expressions linking people's awareness of touch and of movement to claims about reality and the significance of reality:

I am moved by her speech.
Your attention touches me.
This is palpable evidence.
We haven't made contact.
He stands on solid ground.
A new political movement.
I grasp what you mean.

And so on. This is everyday language. Philosophers have also sometimes taken an interest in these statements and metaphors, but as the issues raised are complex and many-sided, this interest does not appear as a single theme or area of discussion. At a high level of abstraction, it is common in the West to associate sight with objectivity and truth, since sight "puts distance" between the observer and what is observed and thereby establishes "perspective". By contrast, touch is associated with subjectivity and intimacy². Personifications of the senses in earlier times portrayed "the man of reason", clothed, looking out, and "the woman of feeling", naked, touching. I think such generalised contrasts between the senses of limited value. In this paper, rather, I will introduce the argument that there is a special relationship between the feel, or intuition, of something being real and the touch and movement senses. The focus is not on a claim about what constitutes objective knowledge but on why people have said touching and moving gives a sense of reality.

At the outset, I want to clarify four points. Firstly, some authors use "touch" to denote the sense of contact; others use "touch" more broadly to denote a range of senses mediated by the skin and body structures, including senses of contact, movement, temperature, pressure and so on. I use the word broadly, though I shall in fact concentrate on the sense of movement. Some people have suggested that there are as many as twenty-three touch senses, but I am not going to sort this out³. The sense of movement, in turn, includes what is called kinaesthesia, but it also involves senses of balance, effort and "of being alive". Secondly, in this paper I do not sharply distinguish "sense" and "feeling", though the former is associated

¹ Cassirer, E. *The Philosophy of Symbolic Forms*, Vol. 3: The Phenomenology of Knowledge. New Haven, 1957, p. 130. Cassirer was discussing the empirical work of David Katz, *Der Aufbau der Tastwelt* (originally published as Supplement 11, *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, 1925), translated as *The World of Touch* (Hillsdale, NJ, 1989). I also used this quotation to introduce a talk, on which this paper is based, at the Higher School of Economics, Moscow, Philosophy Colloquium, 19 January 2018. This work is part of a book in progress, *The Sense of Movement: An Intellectual History*. See also, Smith, R. "Kinaesthesia and Touching Reality", *Interdisciplinary Studies in the Long Nineteenth Century*, 2014, No. 19, DOI: <http://doi.org/10.16995/ntn.691>; Smith, R. "Kinesteziya i metafory real'nosti" [Kinaesthesia and Metaphors of Reality], *Novoe Literaturnoe Obozrenie*, 2014, No. 125, pp. 13–29.

² For a readable survey, Classen, C. *The Deepest Sense: A Cultural History of Touch*. Urbana, 2012. Hannah Arendt, for example, took the association of sight and objectivity for granted: *The Life of the Mind*, Vol. 1: Thinking. London, 1978, p. 119.

³ For the questions, what is a sense and how many are there, see Macpherson, R. (ed.) *The Senses: Classical and Contemporary Philosophical Perspectives*. Oxford, 2011.

more with objective knowledge of the world and the latter more with the subjective qualities coloured by emotion. Thirdly, I write about how authors have described awareness of touch and movement, that is, I comment on descriptive phenomenology and do not talk about the natural science, or physiology, of the bodily dimensions of the senses. Yet anyone who studies the history and present knowledge of sensory life must face the highly contested question of the relationship between philosophical (or logical) and scientific (or empirical) statements. This question is chronically unresolved in the field of studies of sensory consciousness, for the very good and obvious reason that the empiricist philosophical claim to know through sensory awareness draws on an empirical claim about how that awareness is possible. I do not deal directly with this hugely complex question. But I do note that the authors who interest me make (philosophical) statements about what they intuit to be real based on (empirical or phenomenological) claims about the sense of movement. Lastly, I do not talk about the experiential qualities of the senses, “the feel” of different kinds of movement, in walking or in gymnastics, for example, except in so far as they contribute to a feel for reality.

“Kinaesthesia” is the word commonly in use to describe the sense of movement. This term was introduced in 1880 by a London neurologist (a medical specialist on nervous diseases), H. Charlton Bastian, and it spread from English to other languages⁴. The English dictionary defines kinaesthesia as: “The faculty of being aware of the position and movement of parts of the body by means of sensory nerves (proprioceptors) within the muscles, joints, etc.; the sensation producing such awareness”⁵. Modern usage is actually variable (as is also the case for the related terms “proprioception” and “haptic sense”). The dictionary definition simplifies, and it uses the everyday but not scientific language of a “faculty”. Moreover, the awareness of movement concerns the very sense of embodiment, awareness of the whole body, in posture as in motion, as well as motion of the parts of the body; and awareness of movement involves other organs, notably the vestibular apparatus of the inner ear and the movement of the eye-balls, besides the muscles and joints. I argue, in fact, that the history of the sense of movement cannot be reduced to, or simplified into, the history of knowledge of kinaesthesia. The history is bound up with intellectual imagination for human beings as living, active subjects, with the notion that in movement we know ourselves as *alive*, participatory subjects in a world. The theme, in the words of a contemporary writer, Maxine Sheets-Johnstone, is that: “*We literally discover ourselves in movement*”⁶. It is the sentiment, above all, of dancers, but it also has a long intellectual history.

The awareness of being alive is an embodied awareness (though, it is true, shamans and others report “out of body” experiences). This awareness incorporates the sense of movement. And this sense has a double structure, an active component and a resisting component, a force encountering a force. The relation, or process, analysable into action-resistance, is logically and empirically the prior subject; differentiation of active subject and opposing object, self and other, person and world, is derivative⁷. This is the claim about “the real” I study in this paper. There is a

⁴ Bastian, H.C. *The Brain as an Organ of Mind*. London, 1880, p. 543. See Jones, E.G. “The Development of the ‘Muscular Sense’ Concept during the Nineteenth Century: The Work of H. Charlton Bastian”, *Journal of the History of Medicine*, 1972, Vol. 27, pp. 298–311.

⁵ *Shorter Oxford English Dictionary on Historical Principles*, 6th ed. Oxford, 2007, p. 1505.

⁶ Sheets-Johnstone, M. *The Primacy of Movement*, 2nd ed. Amsterdam; Philadelphia, 2011, p. 117.

⁷ I do not propose to enter into the Hegelian development of this kind of argument: for there to be awareness there must be *difference* – there can be no knowledge without the constitution of an other. I discuss belief that knowledge is constituted in the difference of active subject encountering resisting object.

history to belief in the epistemic primacy of movement awareness (or consciousness), an awareness understood to be constituted by “a couple”, action-resistance: action gives rise to resistance, and resistance makes possible awareness of action.

Tracing the history of this kind of philosophical understanding, I follow the example of the eminent *genevois* literary scholar, Jean Starobinski, who wrote on *Action and Reaction: The Life and Adventures of a Couple*, playing with the multiple meanings of “couple” in English⁸. Just as there is no love without a partner, even if that “partner” be a projection of self, there is no active subject without resisting object. The epistemic primacy attributed to the sense of movement, I argue, follows from the irreducible quality that the sense of movement is thought to have in revealing or displaying the relationship, or partnership, constituting being human in the world. Starobinski emphasised the history of the sense of the body in the story he told about the couple, action-reaction (and its physiological equivalent, stimulus-response). This was also the case in a major study of pre-modern Western beliefs about action and movement, Daniel Heller-Roazen’s *The Inner Touch*. Heller-Roazen wrote on the legacy of Aristotle’s argument that there must be a “common sense”, a capacity of the soul to unite the contents originating with “the five senses” (sight, hearing, taste, smell and touch) into a unified perception. Heller-Roazen drew on imagery that likened this “common sense” to an “inner touch” within the embodied knowing subject⁹. He pointed out the continuity of this imagery with the modern sense of movement. I take this further.

Locke and the empiricist culture of the Enlightenment much influenced the modern discussion of the sense of movement. Analysing the senses into their supposed elementary components, Locke and his successors gave a lot of attention to touch and then broke touch down into component parts, making possible the first clearly differentiated discussions of a sense of movement. The philosophical import of this stress on sensory knowledge has its most colourful form in the famous moment reported by James Boswell:

After we [Dr Samuel Johnson and I] came out of the church, we stood talking for some time together of Bishop Berkeley’s ingenious sophistry to prove the non-existence of matter, and that every thing in the universe is merely ideal. I observed, that though we are satisfied his doctrine is not true, it is impossible to refute it. I never shall forget the alacrity with which Johnson answered, striking his foot with mighty force against a large stone, till he rebounded from it – “I refute it thus”¹⁰.

Note the report of Johnson “striking his foot with mighty force”, that is *moving*, exercising his force against resisting force. His demonstration of the reality of matter did not rely so much on sensory contact as on sensory “couple”, activity-resistance. His philosophy was performative. Modern philosophers, of course, make a standard riposte to Johnson: the sensuous report of one particular sense no more addresses epistemological questions than the sensuous report of any other sense. All the same, there continues to be a literature, broadly phenomenological in orientation, which endorses the epistemological priority of touch/movement sense. In doing so, it gives a formal voice to ordinary people’s intuitions. Hans Jonas provided a key statement.

⁸ Starobinski, J. *Action and Reaction: The Life and Adventures of a Couple*. New York, 2003. Also, Starobinski, J. “The Natural and Literary History of Bodily Sensation”, *Fragments for a History of the Human Body*, Pt. 2. New York, 1989, pp. 350–370.

⁹ Daniel Heller-Roazen traced this to discussion in Augustine and his disciples: *The Inner Touch: Archaeology of a Sensation*. New York, 2007, pp. 136–137.

¹⁰ *Boswell’s Life of Johnson*, 2nd ed, Vol. 1. Oxford, 1964, p. 471. The incident took place in 1763.

Reality is primarily evidenced in resistance which is an ingredient in touch experience. For physical contact is more than the geometrical fact of contiguity: it involves impact. In other words, touch is the sense, and the only sense, in which the perception of quality is normally blended with the experience of force, which being reciprocal does let the subject be passive; thus it is the sense in which the original encounter with reality as reality takes place¹¹.

This I understand as common opinion, witnessed by ordinary language which links touch and movement senses to statements about reality and significance. As I have noted, we touch or are touched, move or are moved, psychologically, politically and spiritually as well as physically; we may be in contact or not in contact; there is tangible or palpable evidence – and doctors literally palpitate the body for such evidence; people stand on their own two feet, or stand upright; a person may have immovable beliefs; we take part in, or decry, political movements; and, as Hemingway wrote, the earth may move at the moment of most intense feeling.

I turn to two key steps in the argument, the first focused on the work of Des-tutt de Tracy and Maine de Biran, in the years just before and after 1800, and the second focused on the work of Edmund Husserl. The former step established action-resistance in phenomenological description of awareness (consciousness, in French *conscience*); the latter step is a key influence on modern philosophical discussion of the topic. First, I sketch essential elements of the background

It is a Western convention, since Aristotle, to refer to “the five senses”. The convention makes it appear that there are discrete senses, that there are five of them and that they are all members of the same kind of species of living faculty. Aristotle noted, however, that touch is in certain ways different from the others senses. His first point was that “the most basic of the senses, touch, all animals have”, implying that without touch animals simply would not achieve self-preservation and remain alive¹². This is not the case for the other senses. It therefore seemed correct to treat touch as primary, and, having taken this step, to describe the other senses as sharing certain things in common with touch, namely, a character analysable into active and passive components and dependency on movement. Further, Aristotle observed, the sensed qualities of touch are extremely heterogeneous: “touch... has a wide range of objects”¹³. References to touch in modern usage continue to have extraordinary richness, as they encompass contact, pressure, tactile qualities like roughness, silkiness and so on, temperature and vibration, not to mention the senses of movement¹⁴. In addition, as I have already noted, Aristotle discussed the necessity for a “common sense”. Discussion of these topics in *De Anima* remained a mainstay of education into the eighteenth century. By then, however, especially in the wake of Locke and empiricist argument about the sources of knowledge, there was more detailed and systematic attention to precisely what knowledge originates with which sense. It was common to link touch to the perception of the

¹¹ Jonas, H. “The Nobility of Sight: A Study in the Phenomenology of the Senses”, *Philosophy and Phenomenological Research*, 1954, Vol. 14, p. 516; also reprinted, revised, in Jonas, H. *The Phenomenon of Life: Toward a Philosophical Biology*. Evanston, IL, 2001, pp. 135–156. Jonas was a student of Heidegger and understood his essays as contributions to philosophical anthropology. More recently, see Ratcliffe, M. “What Is Touch?” *Australasian Journal of Philosophy*, 2012, Vol. 90, pp. 413–432; Ratcliffe, M. “Touch and the Sense of Reality”, *The Hand, an Organ of the Mind: What the Manual Tells the Mental*. Cambridge, MA, 2013, pp. 131–157.

¹² Aristotle, *De Anima*, II. 413b.

¹³ *Ibid.*, II. 418a.

¹⁴ This is well recognised in sensory physiology. One summary listed eleven kinds of sensory endings in the skin of the hand: Hsiao, S., Yoshioka, T. & Johnson, K.O. “Somesthesia, Neural Basis of”, *Encyclopedia of Cognitive Science*, Vol. 4. London, 2003, pp. 92–96. Katz, *World of Touch*, remains an unparalleled exploration of tactile richness.

primary qualities of bodies, that is, to knowledge of what the new science of the seventeenth century had stated to be real – mass, impenetrability and extension. The other senses were associated with the secondary qualities. George Berkeley's *A New Theory of Vision* (1709) stimulated considerable discussion of the contribution of touch to notions of spatial reality and especially the perception of distance. Étienne Bonnot, abbé de Condillac and David Hartley subjected touch to more intensive analysis. In conjunction with medical and aesthetic appreciation of the bodily sense, or bodily sentiment, this resulted in differentiation of the sense of movement from the sense of contact. In the early years of the nineteenth century, references to “the muscular sense” (*sense musculaire*, *Muskelgefühl* or *Muskelsinn*, *myshechnoe chuvstvo*) began to appear¹⁵. Authors shaped discussion of the sense in the terms of a framework which pictured living activity encountering opposition and which conceived knowledge to originate in the “couple”, action-resistance. The literature articulated belief that movement is inherent to being alive and that the sense of movement, now attributed to the muscular sense, results in the most elementary knowledge of reality. The sense subsequently became the subject of intensive psychological and physiological research.

On occasion, authors referred to the muscular sense as a “sixth sense”. Charles Bell, an anatomist, was the first writer in English, in about 1815, to call the muscular sense the sixth sense¹⁶. This is an interesting expression, used in a number of different ways, though most frequently to denote a sense that goes “beyond” the conventional list of five senses and gives a person access to a special, unusual or even unprecedented form of knowing. Fontanelle, in his widely read popularisation of the new astronomy of the seventeenth century, stated: ‘It’s quite possible we’re missing a natural sixth sense that would teach us many things we don’t know’¹⁷. In modern times, extra-sensory perception (ESP) is sometimes called a “sixth sense”. Most commonly, the sense is equated with intuition, knowing by direct feeling, and in Russian the sense may denote mystical insight. Osip Mandelstam, after his deeply “moving” visit to Armenia, wrote: “I have cultivated in myself a sixth sense, an ‘Ararat’ sense; the sense of attraction to a mountain./ Now, no matter where I might be carried, it is already speculative and will abide with me”¹⁸. Calling the muscular sense a sixth sense significantly associated it with intuition, likening the sense to a feeling that gives unmediated knowledge of reality. The reasoning for the association was that the sense conveys a representation of the dual character of activity-resistance, a *relationship* of action, which we come to know as the self, and resistance, which we come to know as the world. It is the sense of *really* being in the world, the sense of the embodied self.

A.-L.-C. Destutt de Tracy was the leader of a group of intellectuals and physicians which assembled in the reformed Institut national in Paris in the 1790s. The members of the group accepted the name of *idéologues*, signaling their debt to Condillac’s theory of the sources of ideas and the place that theory had in a com-

¹⁵ Relevant sources, besides Destutt de Tracy and Maine de Biran discussed below, include Erasmus Darwin, Charles Bell and Thomas Brown in English and J.C. Reil and Johann Georg Steinbuch in German (for which see Ritter, J. & Gründer, K. (eds.) *Historisches Wörterbuch der Philosophie*, Vol. IX. Darmstadt, 2007, col. 851–856).

¹⁶ Bell, J. & Bell, C. *The Anatomy and Physiology of the Human Body*, 4th ed., Vol. 3. London, 1816, pp. 9–10 (also pp. 216–217). I used the phrase earlier, in Smith, R. “‘The Sixth Sense’: Towards a History of Muscular Sensation”, *Gesnerus: Swiss Journal of the History of Medicine and Sciences*, 2011, Vol. 68, pp. 218–271. Irina Sirotkina and I played on the ambiguity of reference to insight and movement as sixth senses in Sirotkina, I. & Smith, R. *The Sixth Sense of the Avant-Garde: Dance, Kinaesthesia and the Arts in Revolutionary Russia*. London, 2017.

¹⁷ Fontanelle, B. le Bovier de. *Conversations on the Plurality of Worlds*. Berkeley, 1990, p. 46.

¹⁸ Mandelstam, O. *Journey to Armenia*. London, 2011, p. 91.

prehensive system of pedagogy based on belief in the sensory roots of knowledge. It was the great strength of *idéologie* – and the reason for the claim sometimes made that it founded the science of man – that its proponents brought together the mind, the body and society in order to understand the sources of knowledge and rational action.

Condillac attributed the most basic knowledge that there is a world to the tactile sense of solidity. He observed that when the hand touches the body there is double sensation, the sensation of solidity and the sensation of being touched. This, he argued, is the basis for differentiating the self and the other, the “I” and the world. Tracy re-described this formative experience in terms of sensation of resistance. Further, he claimed that each and every sensation of movement involves an element of resistance, not just the hand touching the body, and this general awareness of resistance is the source knowledge of self and other. Building on this, Maine de Biran then argued that it is effort, sensed in action against muscular resistance, which is the irreducible source of knowledge of a self in a world. Effort versus resistance occurs each time a person moves, and for this reason, there is, Biran claimed, knowledge of self even without the encounter with external objects. He referred to the primary awareness of action as “*effort voulu*”, awareness of self as will.

Though Condillac had the reputation with the Romantics, and with historians of psychology later, of having put forward a picture of human nature as passive, this is not correct. Analysing the contribution of the senses, Condillac famously imagined a statue coming alive through the exercise of one sense at a time¹⁹. However, he gave his statue the capacity to move before it had any sensation. He assumed the presence of *activity*, and hence movement, in nature and in human nature. Being active, the statue’s movement causes touch, which then teaches all the senses to judge of external objects. Tracy subsequently analysed consciousness of movement into “the couple”, sensation of active movement and sensation of pressure from contact, decomposing touch into a *relation* of movement and resistance. He thereby attributed knowledge of the external world, and with it knowledge of self, to conjoined sensory modalities, the one partner active (“*motilité*”), the other passive, resistance (“*resistance*”). Here, Tracy maintained, in touch in general, is the source of notions of *le moi* and *le soi* (“the I” and “oneself”). The active partner originates in the organism itself, in “la faculté de vouloir” (the faculty of volition). Referring to a “faculty”, we should note, Tracy referred to the capacity of an organised living body, not to a power of the soul: “for the will is ... only a result of our organization”²⁰. He concluded that there is a sense of active movement, and as a consequence “the property of resistance to our will is thus at the base of all that we learn to know”²¹.

Biran is relatively unknown outside the French-speaking world. But within that world he has status as the philosopher who, understanding the superficiality of Enlightenment reasoning about sensory experience, returned to a Cartesian examination of reasoning itself, setting French thought on a distinctive path. For Étienne Balibar, Biran’s writing is “the origin of French existentialism, and [... his

¹⁹ Condillac, É. Bonnot, abbé de. *Condillac’s Treatise on the Sensations*. London, 1930.

²⁰ “La volonté n’est ... qu’un résultat de notre organisation” (Tracy, Destutt de. *Projet d’éléments d’idéologie à l’usage des écoles centrales de la République Française*. Paris, An IX [1800–1801], p. 69). This is from the *idéologie, première section*. For discussion of volition, see the *idéologie, seconde section*: Tracy, Destutt de. *Éléments d’idéologie. IV^e et V^e parties. Traité de la volonté et de ses effets*. Paris, 1815, pp. 53–138.

²¹ “La propriété de résister à notre volonté de nous mouvoir, est donc la base de tout ce que nous apprenons à connaître” (Tracy, Destutt de. *Projet d’éléments d’idéologie*, p. 333; see also pp. 102–122).

position] explains why French philosophy has never ceased to ‘translate’ into existential terms the problems of the relation between psychology, phenomenology, and the transcendental dialectic of consciousness [of the post-Kantian idealists]”²². By analysing his own self-awareness, Biran established a form of philosophizing which rested on a descriptive or phenomenological claim for the volitional “I” as an irreducible power. He analysed what Balibar referred to as “the dialectic of consciousness” in terms of awareness of *différence* generated by the “I” as a power encountering resistance. “Consciousness requires the conflict of a power and a resistance”, in Georges Canguilhem’s words²³. This made the sense of movement of pivotal importance in philosophical reasoning about “the real”. Such reasoning in the past, I repeat, did not draw a line between philosophical and psychological statements. Examining the phenomenology of his reasoning, Biran believed that he could not doubt awareness of “*effort*”. This awareness, he concluded, is double in its nature – “a couple”: it has the character of action-resistance. It is this awareness that gives the notion of a subject, the “I”:

Each movement, each step made is a very distinct modification which affects me doubly – by itself and by the act which determines it... Those are, indeed, the two terms of the relation which are necessary for the foundation of this first simple judgment of personality, *I am*²⁴.

This re-described the source of the notion of the self that Tracy had made, attributing this notion to will versus resistance. Further, whereas Tracy described the external world as the source of resistance, Biran held that it is the subject’s own body, the muscles, which is the initial, or original, source of resistance to the active will. Any living creature initiating movement will initiate resistance, be it only movement of the muscles themselves. Writing a report on a prize essay Biran had submitted, Tracy concurred, and he wrote: it is “to mobility that is due the perception of effort, which is composed of the ego which wills to move itself and of the being which opposes it and consists in the judgment that we make of it. That is the first judgment, our first knowledge and the basis of all the rest”²⁵. The will first gives rise to awareness of the body and then, secondarily, to awareness of the external world.

The will or – to substitute the effect (*le fait*) for the cause – the reaction of the center first works directly upon the motor organs as those work secondarily upon the objects; the organ first resists the will, the objects resists the organ. By the first resistance the active being knows the parts of his body; by the second, he learns to know external objects²⁶.

There is will, and with will resistance, first from the body and then from the world, and through the *différence* given by will-resistance, there is the possibility of judgment and knowledge.

The *idéologues* had the ambition to develop a comprehensive *science humaine*, or science of man, and Biran shared this ambition. Like the *idéologues* (though he was never a member of the social group), he initially formulated his philosophical account of the conditions of knowledge in the context of a search for the foundations of this science. Beginning with the discussion of will-resistance,

²² Balibar, É. “Consciousness, Conscience, Awareness”, *Dictionary of Untranslatables: A Philosophical Lexicon*. Princeton, 2014, p. 183.

²³ “La conscience requiert le conflit d’un pouvoir et d’une résistance” (Canguilhem, G. “Qu’est-ce que la psychologie?”, in: G. Canguilhem, *Études d’histoire et de philosophie des sciences*, 7th ed. Paris, 1994, p. 374).

²⁴ Biran, Maine de. *The Influence of Habit on the Faculty of Thinking*. London, 1929, p. 55.

²⁵ “Reports of Citizens Cabanis, Ginquené, Réveillière-Lépeaux, Daunau and Destutt Tracy” (Ibid., p. 26).

²⁶ Ibid., p. 105.

Biran went on to topics such as judgment, habit and memory. This, in turn, laid the basis for an account of the formation of gestures, that is a system of signs, and of language. With this, Biran believed, he laid the basis for understanding real *human* action, the action that differentiates the human sphere from nature:

Real activity... begins only with the use of signs voluntarily associated with the impressions (or by the individual in these impressions themselves) with the intention of communicating with others or with his own thought. This faculty, peculiar to man, of converting his movements or natural signs into artificial ones, causes by its repeated exercise and the different modes of this exercise, a class of habits which, while not differing essentially from the first, are nevertheless transformed in the unlimited development of our perfectibility, in such a way as to appear to obey special laws²⁷.

On the basis of a theory of activity, activity of which we are aware through the sense of movement (will-resistance), Biran speculatively laid out a plan with which to understand the construction of the human world, the world of language. For the *idéologues* and for the generation in France influenced by them, this was the knowledge needed so as to reconstruct society in rational ways, in ways appropriate for the new age of the citizen.

It was an important part of Biran's grand project to clarify the place of the science of psychology. This science, for Biran, was the science of introspected facts, the analysis of the composition of the psychic world, beginning with the "*fait primitif*" (primitive fact) or "*aperception immédiate*", of effort. "One calls psychology the science which, attaching itself at first to this *fait primitif* and to its immediate derivatives, proposes to make a complete analysis of internal and external facts while distinguishing the phenomenal share of the object and the real share of the subject"²⁸. In the context of this discussion of psychology, describing effort, he referred to "*sensation musculaire*". He referred to this sense as the embodied means generating knowledge or cognition of resistance. As I have already discussed, he analysed this cognition into component parts, active awareness of the primary will and passive awareness of reaction to it deriving from the muscular body. Biran described "effort produced and perceived at the same time in the free determination that brings it about, as in the muscular sensation which is the result of it"²⁹.

Biran's description of the content of psychic life, his psychology, was practical and moralistic as well as philosophical. Tracy and the ideologists were secular thinkers; Biran, however, was a Catholic Christian. If for Tracy the will is an activity of organised matter, an activity of an organism, for Biran the will is the essence of the activity of the soul. This side of Biran's thinking was more apparent in his later unpublished personal writings, including a diary, but it guided his conception of psychology. "The couple" will-resistance has a unity in the primary state of awareness. In the course of actual conscious life, however, a person is all too well aware of the disunity of will and of bodily resistance to it. A conscious person knows the difference between the body that obeys the will and the body that does not. Biran's will was a moral will. Nevertheless, in the manner of the *idéologues*, he represented the will as *embodied* action, a capacity of the organization of a

²⁷ Biran, Maine de. *The Influence of Habit on the Faculty of Thinking*, p. 82.

²⁸ "On appelle psychologie la science qui, s'attachant d'abord à ce fait primitif et à ses dérivés immédiats, se propose de faire l'analyse complète des faits externes et internes en y distinguant la part phénoménique de l'objet et la part réelle du sujet..." (Biran, Maine de. "Rapports des sciences naturelles avec la psychologie", in: Maine de Biran, *Œuvres*, Vol. 8. Paris, 1986, p. 14).

²⁹ "Effort produit et aperçu en même temps dans la libre détermination qui l'effectue, comme dans la sensation musculaire qui en est la résultat" (Biran, Maine de. *De l'aperception immédiate. Mémoire de Berlin 1807*. Paris, 2005, p. 161).

living being, of *le moi*. He focused on the psychology of this embodiment, rather than on the metaphysics of the soul. Awareness of embodied action, and hence of being a self, comes to a person through activity and the resulting awareness of will-resistance. In his *Journal*, dating from the later part of his life, however, Biran explored the will in terms closer to the language of the action of the soul. Reading Augustine, he asserted that “there is an immediate action of the soul completely independent of all visceral sensibility or of the sense organs, which is limited neither in space nor in time”³⁰. Then, as a deeply introspective Catholic, he confided to his diary his worries about his personal weakness of will and failure to complete a great work in philosophy. He recreated the ancient concern for the conflict of the spirit and the flesh in the modern terms of effort versus resistance. The modern terms of this conflict were given with the analysis of the muscular sense.

Biran, who had difficulty completing what he wrote and never published a large-scale philosophical work, had limited influence at the time. The language of activity-resistance, or of force acting against force, had many sources and developed along a variety of lines. Analysis of the content of conscious awareness in these terms was widespread in the nineteenth century. At the same time as Tracy and Biran wrote, other authors attributed the sense of movement to a physiologically specific muscular sense. Half-a-century later, Herbert Spencer combined the philosophical and physiological language and elaborated it to its fullest extent. His “Synthetic Philosophy” described the effect of “the unknowable” underlying the evolution of everything, from the stars to ethics, as the action of forces. He described the action of “the unknowable”, force, as the source of the most primitive element of awareness, “the couple” arising from movement and resistance generated by contact. He wrote: “Action by direct contact... becomes the action of which all other kinds of action are representative. And the sensation of resistance, through which this fundamental action is known, becomes, as it were, the mother-tongue of thought”³¹. There was also extensive nineteenth-century discussion of the psychology and physiology of the muscular sense, and this was the context in which “kinaesthesia” was introduced as a term. “Kinaesthesia” has only relatively recently entered Russian. In the 1860s, however, the physiologist Ivan Sechenov introduced reference to muscular feeling. His statements about this were then used in the Soviet period to celebrate a Russian source for a realist-materialist theory of knowledge. The claim was not that Lenin drew on Sechenov (he did not) but that Sechenov understood the roots of knowledge of the material world in the activity, or movement, of people in the world³². However, I do not discuss the nineteenth century further in this paper but move forward to the work of Husserl. Husserl is the proximate source for modern philosophical discussion of the sense of movement.

Husserl believed that he introduced the term “kinaesthesia” into German philosophical literature. This is rather striking, because in English the term was a scientific, psychological one, and Husserl was associated at the time, and is associated now, with the philosophical argument to banish psychologism from the theory of knowledge³³.

³⁰ “Il y a une immédiate des âmes tout à fait indépendante des viscères sensible ou des organes des sens, qui n’est pas limitée à l’espace ni au temps” (Biran, Maine de. *Journal*, Vol. 1. Neuchâtel, 1954, p. 120).

³¹ Spencer, H. *The Principles of Psychology*. London, 1855, p. 269.

³² For Sechenov and late Soviet interpretation, Kostiuik, P.G., Mikulinskii, S.R. & Yaroshevskii, M.G. (eds.) *Ivan Mikhailovich Sechenov: K 150-letiy so dnya rozhdeniya* [Ivan Mikhailovich Sechenov: The 150th Anniversary of his Birth]. Moscow, 1980. See Smith, R. “The Muscular Sense in Russia: I. M. Sechenov and Materialist Realism” (under review). I locate Sechenov in a wider history of argument about the sources of knowledge in action-resistance.

³³ See Kusch, M. *Psychologism: A Case Study in the Sociology of Philosophical Knowledge*. London, 1995.

Husserl's teaching gave considerable attention to the perception of spatiality since spatiality was fundamental to what he said about "the constitution", or apprehension, of the material world as a phenomenon. In 1907, Husserl devoted a series of lectures to the topic of touch and spatial perception. This engaged him in the literature of the psycho-physiology of the movement sense as much as in philosophy. "All spatiality", he said, "is constituted, i.e., comes to givenness, in movement, in the movement of the Object itself and in the movement of the "Ego," along with the change in orientation that is given thereby"³⁴. Drawing on a large specialist literature, he described eye movement (oculomotor processes) as central to visual perception and the disclosure of spatiality. In one lecture, he then self-consciously adopted "kinaesthesia" as a new term appropriate for phenomenological as opposed to psychological analysis of *Muskelgefühl* (muscular feeling): "To exclude this psychological meaning, we will employ the term *kinaesthetic* sensation, which, as a foreign word, is less misleading"³⁵. If Husserl thought this helpful for his German-language audience, viewed from a larger perspective it is confusing, as "kinaesthesia" was definitely a psychological term in English. Husserl, associated in philosophy with the requirement to differentiate philosophical and psychological statements, here seems to confuse them. This is a point that raises large questions in Husserl interpretation. Though he distinguished "transcendental" and "psychological" phenomenology, it may well be doubted whether he sustained the distinction. Some of those who followed his lead, notably Merleau-Ponty, certainly did not³⁶.

Husserl assigned to "kinaesthetic processes" a very significant part in the apprehension of the world. Apprehension, he wrote, is the apprehension that comes with a moving body. The sense organs are embodied in this movement: "given with the localization of the kinesthetic series in the relevant moving member of the Body is the fact that in all perception and perceptual exhibition (experience) the Body is involved as freely moved sense organ, as freely moved totality of sense organs"³⁷. He lectured at length on the apprehended spatiality of material things, apprehension that follows from the intuition, which cannot be further analysed, of movement and resistance. There is, he believed, a double apprehension in conscious awareness – the intention, or attitude *towards* something ("motivating" circumstances) and the perceptual experience *of* something ("motivated" circumstances)³⁸. Husserl described the phenomenology of the hand touching the body, or most sensitively, one hand touching the other hand, and he used this to illuminate what he said about "double apprehension". In this "double apprehension" he located the source of awareness of relation between the sensing "I" and a physical thing. "Hence the Body is originally constituted in a double way: first, is a physical thing, *matter*... Secondly, I find on it, and I *sense* 'on' it and 'in' it: warmth on the back of the hand, coldness in the feet, sensations of touch in the fingertips"³⁹. This double apprehension gives "the I" and "the world". If there were no movement and resulting touch sensation, we could think in imagination, there would be no awareness: "The body as such can

³⁴ Husserl, E. *Thing and Space. Lectures of 1907*. Dordrecht, 1997, p. 131.

³⁵ *Ibid.*, p. 136.

³⁶ Maurice Merleau-Ponty studied Husserl intensively before publishing *Phenomenology of Perception* (London, 2002). In this work he paid no special attention to kinaesthesia but emphasised the embodied nature of perception in general.

³⁷ Husserl, E. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*. Second Book: Studies in the Phenomenology of Constitution. Dordrecht, 1989, p. 61.

³⁸ *Ibid.*, p. 70.

³⁹ *Ibid.*, p. 153.

be constituted originally only in tactuality and in everything that is localized with the sensations of touch”⁴⁰. Husserl even re-used the language of force acting against force to describe the phenomenology of the apprehended world:

There is a restless doing of things, i.e. a consciousness of an ability that meets no resistance, and there is a doing as an overcoming of resistance, a doing that has its “against which,” and a corresponding consciousness of an ability to overcome the resistance. There is always... a gradient in the resistance and in the power of overcoming it, a continuum in “active power” versus the “inertia” of the resistance... After all, things are “active” in relation to one another, have “powers and counter-powers” in relation to one another, resist one another⁴¹.

In the *Cartesian Meditations*, based on lectures given in Paris in 1929, when Husserl systematically discussed the phenomenology of the distinction between “the I” and “Nature”, he referred to the senses of “the animate organism”. He again assigned to kinaesthesia primary significance. It is in doing, he declared, doing known in embodied movement, that apprehension generally comes into play, apprehension understood as awareness of animate being acting and in acting generating the distinction of Object and “I”. Object and “I” are reflexively related: the one cannot be said to exist without the other: “As perceptively active, I experience (or can experience) all of Nature, including my own animate organism, which therefore in the process is reflexively related to itself”⁴².

A number of modern writers, interested in a theory of knowledge which describes the knowing subject as an embodied part of the world rather than as “a mind” observing the world, seek resources in Husserl, or see Husserl as a precedent for the approach they want to take⁴³. In this paper, I have indicated, however briefly, that Husserl himself should be seen as a contributor to an extended history of discussion of the “double” constitution of awareness in action-resistance. This history is a large part of the history of the sense of movement, of the muscular sense and of kinaesthesia. I have drawn attention to the special contribution of Tracy and Biran in the earlier history. It is a history which raises complex and unresolved questions about the relations, in logic and in practice, that both unite and divide philosophical and psychological statements. History of thought about the sense of movement turns out to involve far more than a narrowly conceived history of a single sense could possibly encompass. There is a history to everyday phrases like “to be in contact”, or “to move” or “to grasp” of great philosophical interest.

References

Arendt, H. *The Life of the Mind*, Vol. 1: Thinking. London: Secker & Warburg, 1978. 258 pp.

Aristotle. *De Anima (On the Soul)*, trans. by H. Lawson-Tancred. London: Penguin Books, 1986. 256 pp.

Balibar, É. “Consciousness, Conscience, Awareness”, *Dictionary of Untranslatables: A Philosophical Lexicon*, ed. by B. Cassin. Princeton: Princeton University Press, 2014, pp. 174–187.

Bastian, H. C. *The Brain as an Organ of Mind*. London: Kegan Paul, 1880. 708 pp.

⁴⁰ Husserl, E. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, p. 158.

⁴¹ *Ibid.*, pp. 270–271.

⁴² Husserl, E. *Cartesian Meditations: An Introduction to Phenomenology*. The Hague, 1977, p. 97.

⁴³ E.g. Mattens, F. “Perception, Body, and the Sense of Touch: Phenomenology and Philosophy of Mind”, *Husserl Studies*, 2009, Vol. 25, pp. 97–120; Still, A.W. & Good, J.M.M. “The Ontology of Mutualism”, *Ecological Psychology*, 1998, Vol. 10, pp. 39–63.

- Bell, J. & Bell, C. *The Anatomy and Physiology of the Human Body*, 4th ed., 3 Vols. London: Longman, Hurst, Rees, Orme, and Brown, and T. Cadell, 1816.
- Biran, Maine de. *The Influence of Habit on the Faculty of Thinking*, trans. by M.D. Boehm. London: Baillière, Tindall & Cox, 1929. 227 pp.
- Biran, Maine de. *Journal*, ed. by H. Gouhier, 3 Vols. Neuchâtel: Éditions de la Bâconnière, 1954–1957.
- Biran, Maine de. *De l'aperception immédiate. Mémoire de Berlin 1807*, ed. by A. Devarieux. Paris: Le livre de poche, 2005. 287 pp.
- Biran, Maine de. "Rapports des sciences naturelles avec la psychologie", in: Maine de Biran, *Œuvres*, ed. by F. Azouvi, Vol. 8. Paris: J. Vrin, 1986, pp. 1–218.
- Boswell, J. *Boswell's Life of Johnson*, ed. by G.B. Hill, revised by L.F. Powell, 2nd ed. Oxford: Clarendon Press, 1964. 1492 pp.
- Canguilhem, G. "Qu'est-ce que la psychologie?", in: G. Canguilhem, *Études d'histoire et de philosophie des sciences*, 7th ed. Paris: J. Vrin, 1994, pp. 365–381.
- Cassirer, E. *The Philosophy of Symbolic Forms*, Vol. 3: *The Phenomenology of Knowledge*, trans. by R. Manheim. New Haven: Yale University Press, 1957. 501 pp.
- Classen, C. *The Deepest Sense: A Cultural History of Touch*. Urbana, IL: University of Illinois Press, 2012. 256 pp.
- Condillac, É. Bonnot, abbé de. *Condillac's Treatise on the Sensations*, trans. by G. Carr. London: Favil Press, 1930. 250 pp.
- Fontanelle, B. le Bovier de. *Conversations on the Plurality of Worlds*, trans. by H.A. Hargreaves. Berkeley: University of California Press, 1990. 132 pp.
- Heller-Roazen, D. *The Inner Touch: Archaeology of a Sensation*. New York: Zone Books, 2007. 386 pp.
- Hsiao, S., Yoshioka, T. & Johnson, K. O. "Somesthesis, Neural Basis of", *Encyclopedia of Cognitive Science*, ed. by L. Nadel, Vol. 4. London: Nature Publishing, 2003, pp. 92–96.
- Husserl, E. *Thing and Space. Lectures of 1907*, trans. by R. Rojcewicz. Dordrecht: Kluwer, 1997. 350 pp.
- Husserl, E. *Cartesian Meditations: An Introduction to Phenomenology*, trans. by D. Cairns. The Hague: Martinus Nijhoff, 1977. 158 pp.
- Husserl, E. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, Second Book: *Studies in the Phenomenology of Constitution*, trans. by A. Schuwer and R. Rojcewicz. Dordrecht: Kluwer, 1989. 440 pp.
- Jonas, H. "The Nobility of Sight: A Study in the Phenomenology of the Senses", *Philosophy and Phenomenological Research*, 1954, Vol. 14, pp. 507–519.
- Jones, E. G. "The Development of the 'Muscular Sense' Concept during the Nineteenth Century: The Work of H. Charlton Bastian", *Journal of the History of Medicine*, 1972, Vol. 27, pp. 298–311.
- Katz, D. *The World of Touch*, ed. by L.E. Krueger. Hillsdale, NJ: Lawrence Erlbaum Associates, 1989. 272 pp.
- Kostiuk, P. G., Mikulinskii, S. R. & Yaroshevskii, M. G. (eds.) *Ivan Mikhailovich Sechenov: K 150-letiu so dnya rozhdeniya* [Ivan Mikhailovich Sechenov: The 150th Anniversary of his Birth]. Moscow: Nauka Publ., 1980. 607 pp. (In Russian)
- Kusch, M. *Psychologism: A Case Study in the Sociology of Philosophical Knowledge*. London: Routledge, 1995. 326 pp.
- Macpherson, R. (ed.) *The Senses: Classical and Contemporary Philosophical Perspectives*. Oxford: Oxford University Press, 2011. 432 pp.
- Mandelstam, O. *Journey to Armenia*, trans. by S. Monas. London: Notting Hill Editions, 2011. 186 pp.
- Mattens, F. "Perception, Body, and the Sense of Touch: Phenomenology and Philosophy of Mind", *Husserl Studies*, 2009, Vol. 25, pp. 97–120.
- Merleau-Ponty, M. *Phenomenology of Perception*, trans. by C. Smith. London: Routledge, 2002. 544 pp.
- Ratcliffe, M. "What is Touch?", *Australasian Journal of Philosophy*, 2012, Vol. 90, pp. 413–432.
- Ratcliffe, M. "Touch and the Sense of Reality", *The Hand, an Organ of the Mind: What the Manual Tells the Mental*, ed. by Z. Radman. Cambridge, MA: MIT Press, 2013, pp. 131–157.

- Ritter, J. & Gründer, K. (eds.) *Historisches Wörterbuch der Philosophie*, Vol. IX. Darmstadt: Wissenschaftliche Buchgesellschaft, 2007. 796 pp.
- Sheets-Johnstone, M. *The Primacy of Movement*, 2nd ed. Amsterdam; Philadelphia: John Benjamins, 2011. 574 pp.
- Sirotkina, I. & Smith, R. *The Sixth Sense of the Avant-Garde: Dance, Kinaesthesia and the Arts in Revolutionary Russia*. London: Bloomsbury, 2017. 232 pp.
- Smith, R. “‘The Sixth Sense’: Towards a History of Muscular Sensation”, *Gesnerus: Swiss Journal of the History of Medicine and Sciences*, 2011, Vol. 68, pp. 218–271.
- Smith, R. “Kinaesthesia and Touching Reality”, *Interdisciplinary Studies in the Long Nineteenth Century*, 2014, No. 19, DOI: <http://doi.org/10.16995/ntn.691> [<https://www.19.bbk.ac.uk/articles/10.16995/ntn.691/>, accessed on 19.03.2018].
- Smith, R. “Kinesteziya i metafory real’nosti” [Kinaesthesia and Metaphors of Reality], trans. by O. Mikhailova, *Novoe Literaturnoe Obozrenie*, 2014, No. 125, pp. 13–29. (In Russian)
- Smith, R. “The Muscular Sense in Russia: I.M. Sechenov and Materialist Realism” (under review).
- Spencer, H. *The Principles of Psychology*. London: Longman, Brown, Green, and Longmans, 1855. 620 pp.
- Starobinski, J. “The Natural and Literary History of Bodily Sensation”, trans. by S. Matthews, *Fragments for a History of the Human Body*, Pt. 2, ed. by M. Feher, R. Naddoff and N. Tazi. New York: Zone Books, 1989, pp. 350–370.
- Starobinski, J. *Action and Reaction: The Life and Adventures of a Couple*, trans. by S. Hawkes. New York: Zone Books, 2003. 450 pp.
- Still, A. W. & Good, J. M. M. “The Ontology of Mutualism”, *Ecological Psychology*, 1998, Vol. 10, pp. 39–63.
- Tracy, Destutt de. *Projet d’éléments d’idéologie à l’usage des écoles centrales de la République Française*. Paris: Didot, An IX [1800–1801]. 359 pp.
- Tracy, Destutt de. *Éléments d’idéologie. IV^e et V^e parties. Traité de la volonté et de ses effets*. Paris: V. Courcier, 1815. 578 pp.

Чувство движения

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Многие из философов предполагают, что существует особая связь между осознанием и представлениями о реальности. Эта связь находит отражение даже в фигурах речи обыденного английского языка. В меньшей степени осознается, что не бывает прикосновения, а значит, и осознания без движения; именно чувство движения и составляет предмет настоящей статьи. Именуемое порою «шестым чувством», это чувство соединяет ощущение с интуицией – умением чувствовать «всамделишнее». В данной статье предлагается очерк ключевых аспектов характерных для западной мысли представлений о чувстве движения (включая и мускульное чувство, или кинестезию) в связи с воззрениями на познание действительности. Эта краткая история касается и вопроса об осознании субъектом себя в качестве живого и обладающего телом существа. Автор, в частности, подчеркивает значение вклада таких мыслителей, как Кондильяк, Дестют де Траси и Мен де Биран, в развитие теории осознания движения как явления по сути своей двойственного, действия-противодействия. В итоговой части исследования рассматриваются труды Гуссерля, наиболее авторитетного представителя современного феноменологического анализа, направления, в котором чувство движения становится предпосылкой суждений о «реальности».

Ключевые слова: осознание, кинестезия, теория познания, Мен де Биран, Гуссерль