

Ecstatic Body, Ecstatic Nature: Perception as Breaking With the World

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Published in *Chiasmi International: Trilingual Studies Concerning Merleau-Ponty's Thought* 8 (2006): 201-217
http://philosophy.memphis.edu/Chiasmi_International/index.htm

Abstract

I survey some unusual phenomena in which the body seems to be projected into other things. I argue that these phenomena should not be understood as illusions, as erroneous distortions of an objective body, but as indicating that the body is first of all a being absorbed in outside things. The usual questions about perception are thus reversed: the question is not how the outside world is represented in an inside, but how a moving body ecstatically absorbed in things ever breaks out of that absorption. My suggested answer involves movement and has implications for rethinking nature.

The usual question about perception is how we get to the world out there, as if the perceiving subject is a brainy or noetic spider sitting on a web, snaring flies of sensation and dragging them into what Heidegger would call “the ‘cabinet’ of consciousness,” where they magically become perceptions or representations.¹

This paper seeks to turn the question around, by suggesting that the problem is not how we get to the world out there: the problem is how we ever break from being immersed in the world, given a living, moving body that tends toward ecstatic absorption in things.

This conceptual reversal is not new in philosophy. In his *System of Transcendental Idealism* Schelling argues that if knowledge is possible, it requires the identity of subject and object; the problem is how this identity ever breaks into a difference, and the answer requires the deduction of affect, the body, nature, and so on, a system of entwined actions and passions within which such a break can be constituted.² The reversal is central to Heidegger’s criticism of the “cabinet of consciousness.” We can also see it animating Merleau-Ponty’s later

philosophy, in the theme of chiasm, and in Deleuze’s transcendental empiricism³; it is also implied in the work of Renaud Barbaras.⁴ Such philosophies cast out abstract spiders of transcendence: the problem is not how an abstract transcendental consciousness catches and digests flies, the problem is how flying movements ever weave into distinct spiders and flies, how transcendence arises within movement.

Linked with this reversal is an issue close to the heart of any psychology or cognitive science that takes seriously that we are, by virtue of our very evolution, ecologically and perceptually embedded in the world. In perceptual activity, the distinction between what pertains to ourselves and what pertains to our surround is not a basic given on which knowledge can subsequently be built. J.J. Gibson captures this point in observing that ecologically speaking, the dynamics of perceptual flows simultaneously specify changes in self and the environment: a leftward moving visual flow occurs either when I move to the right, or when things move to the left.⁵ Such flows thus pose a question: how to draw a distinction between a moving self and a moving world, within a moving coupling that itself specifies no such distinction. Think of the thermostat in your house: in going on and activating the furnace, it does not distinguish between going on because the temperature has dropped, or going on because you have turned up the temperature on the thermostat. It responds to changing situations, but in doing so draws no distinction between changes in the world

and changes in ‘itself.’⁶ In encountering such changes we, however, do draw distinctions between self and world. When I suddenly feel cold, this change arises in my relation with the world, but for me there is always an issue of whether the change is of a healthy me in a room becoming chill, or of a sick me catching a chill in a room at a steady temperature. This sort of distinction is basic to perception. And it is also basic to the bio-logic of life: organisms are inherently coupled with their environment, there is not first of all the inside of the organism and then a contact with the outside; the organism is rather that which first of all demarcates an inside over against an outside, from within a flow that does not and cannot draw any such distinction; thermodynamically, an organism is something arising in a thermodynamic flow as instituting bounds in this flow.⁷

What I want to do here is add to the above reversal. In the first two sections I present and then analyze some recently discovered uncanny perceptual phenomena that show that the body is ecstatic, that is, outside of itself in absorption with the world. In the final two sections I draw from this analysis some hypotheses about perception, to suggest that perception is not a matter of first of all connecting insides with outside, but of breaking with the world. I also venture some suggestions about nature.

I should note at the outset that this paper is not so much *on* Merleau-Ponty but *of* Merleau-Ponty. Studying Merleau-Ponty led me, in a previous paper, to a phenomenological investigation of touch, which suggested that tactile perception is as much about rupture as about contact. Handling things like tools or tennis rackets can give us a sense of: reaching with a tool augmented body, in which case the line between the lived body and world is drawn between the tool and the things reached for;

or of touching a tool held in hand so as to feel it as an object, in which case the line is drawn between the hand and the tool. Our tactile involvement with tools is such that the lines between lived body and world are dynamic and ambiguous, sliding quickly between the above senses; the question is how this is so, and how we can, within our handlings, draw a distinction between ourselves and things in hand. I argued that the distinction between hand and tool is not basic and prior to tactile perception, it is rather a sense of rupture generated in and consequent upon the way we move with things held in hand.⁸ This paper returns to and ramifies that point by studying phenomena which suggest that the body is more pervasively linked with things, that distal things ‘outside us’ are ‘held in hand’ even when we are not physically moving or in contact with them.⁹ This raises the question of how we institute a break or rupture between us and them. The direction this paper takes is part of an effort to reconceive perception and nature in relation to one another.¹⁰

1) Some Uncanny Phenomena

The first phenomenon is one I discovered by accident; it prompted the underlying thought of this paper. On two chairs placed side by side, as in a movie theatre, sit so that an accomplice is to your left. With your elbow at your side, extend your left forearm diagonally upward so that the palm of your left hand is toward your face; have your accomplice mirror this with her or his right forearm and hand. Now, slip your left elbow and forearm over your accomplice’s elbow, as you might when holding hands, but instead of interlacing the fingers of your hands, put your left hand palm to palm with your accomplice’s right hand, matching up fingers and thumbs, and spread out the fingers and thumbs of both your hands,

keeping them matched together in a 'sandwich'. You should be seeing the back of your accomplice's hand, with your hand hidden behind it. Now, reach out and encircle your (and your accomplice's) middle finger with the thumb and index finger of your right hand, moving your encircling fingers up and down, stroking the 'sandwich' made by your two fingers. I experience something quite strange: I feel the touch in me in the other's hand. Many other respondents do as well. Others feel that the hand they are seeing is oddly rubbery or dead, even if there is feeling going on. Some do not feel anything odd at all. Emotional relations with the accomplice might be a factor. Merleau-Ponty is famous for returning again and again to the phenomenon of double touch, in which, when I touch my left hand with my right hand, my hand ambiguously reverses between touching and being touched. In *Eye and Mind* he writes that there would not be a human body if there were not this internal circuit of reversibility between touching and touched. The body reverses into and is related to itself, and it is in virtue of this sort of reversibility that a "spark is lit" which brings perception and the human body into being.¹¹ What this phenomenon begins to suggest is that the circuit of reversibility is not merely internal to the body, but in fact runs between one's body and the body of others, that our bodies reverse into and are ecstatically related to the bodies of others.

A related phenomenon has been documented by psychologists. Conceal the subject's left arm from view, place a rubber left hand beside the subject's real arm, and using two paint brushes, stimulate both the rubber and real hand synchronously in coordinate locations. The subject feels the touch of the visible brush in the rubber hand and feels the rubber hand as her own hand.¹² V.S. Ramachandran et. al. found that subjects feel the hand as belonging to them

even if it is positioned an impossible three feet away. They also found that when the rubber hand is removed, and the table is stroked in synchrony with the subject's hand, some subjects feel as if sensation is coming from *the table*; more, if the rubber hand is replaced with a shoe, some subject feel as if they are feeling with *the shoe*. They also found that if the finger of the rubber hand is bent back into a seemingly painful position, subjects have pain responses, laughing nervously, opening their eyes, flinching, pulling their real hand away from the experimenter; this is accompanied by a skin conductance response, which is not subject to voluntary control. Remarkably, a similar pain response occurs if, when subjects are experiencing the shoe as part of their body, the experimenters hit the *shoe* with a giant rubber hammer.¹³ Ehrsson et. al. discovered a somatic, tactile version of the phenomenon: when a blindfolded subject's left index finger is made to stroke a rubber right hand, whilst the subject's real right hand is stroked in a synchronous and coordinated way, she feels that the rubber hand is her own.¹⁴ Here a "spark" is being lit between the subject and what would seem to be a piece of rubber.

Ramachandran, who is a neurologist interested in the experience of phantom limbs and anosognosia, discovered two related phenomena. (1) The 'phantom nose': a blindfolded subject sits to the left of an accomplice facing in the same direction; the experimenter stands nearby and "with his left hand takes hold of the *subject's* left index finger and uses it to repeatedly and randomly tap and stroke the nose of the accomplice, while at the same time, using his right hand, he taps and the strokes the subject's nose in precisely the same manner." (This is much the same technique used in Ehrsson's somatic version of the rubber hand illusion, only in Ehrsson's case the subject's finger strokes the rubber hand,

and the experimenter strokes the subject's hand.) The subject develops the "uncanny illusion that his nose has either been dislocated" or has been stretched to the side. (2) The 'phantom head': a subject faces a half-silvered mirror, with a dummy behind the mirror, and lighting contrived so that the subject sees his own lips on the dummy. When asked to make large lip and tongue movements, or bare her or his teeth, the subject has "the uncanny experience of being in direct control of the dummy's facial movements." Conversely, when the dummy is pinched, there is "a striking increase in the subject's skin conductance response," which suggests that the subject is responding to a pinching occurring in the dummy, but only after the subject has moved her or his lips and experienced the feeling of being in control of the dummy.¹⁵ The latter is reminiscent of the phenomenon of feeling other's pain in us—clapping the body part that someone else has hurt. So too are the pain phenomena discovered by Ramachandran in his explorations of the rubber hand illusion: we could ask whether the subject feels pain when the finger of the rubber hand is bent back because she is experiencing the rubber hand as her own, and it is 'as if' her own hand is being bent, or because she is seeing the rubber hand as a feeling hand in general, and empathically responding as she would when seeing, for example, someone being tortured.

In the literature these illusions and the rubber hand illusion are typically conceptualized in terms of ownership of the body or bodily self: the question is why the subject mistakenly feels that she owns something that is not part of her real body. Recent¹⁶ neurological evidence suggests that the rubber hand illusion correlates with activity in the premotor cortex. This suggests a link between the above phenomena (in which we experience ourselves feeling or moving in alien things)

and phenomena that involve something of the converse, namely, feeling alien things controlling or producing movements in us. Schizophrenic patients often feel that their hand or speaking movements are not their own, that although their bodies are doing the moving, they are not the ones responsible for the movement. In the literature this phenomenon is labelled "alien control." Sarah-Jayne Blakemore and others argue that the phenomenon has its roots in motor control. They propose that when we intend to act, our brains not only issue a motor command to the motor system; an "efference copy" is sent to a system that predicts the sensory and proprioceptive result of the issued motor command; this "forward output model" is compared with the actual sensory feedback consequent upon action, so as to allow for corrections to our movement. But this comparator also lets us distinguish between cases where we are being moved and cases in which we are moving. (As I noted in the beginning, perceptual activity itself leaves such distinctions ambiguous.) Blakemore argues that the phenomenon of alien control is due to a problem in generating the forward output model: the patient's brain is issuing a command to move, but not generating the forward output model that predicts it; the comparator classifies this result as a case of being moved, rather than of moving, since the movement that does occur has not been predicted.¹⁷ But Shaun Gallagher rightly argues that such analyses would need to draw a distinction between a sense of ownership and sense of agency: the patient in fact feels that she owns the movement, that it is her body doing the movement; what she does *not* feel is that she is the *agent* of the movement, which is why the phenomenon is so frightening; if the patient simply felt she was being pushed around, it would not be so disturbing.¹⁸ So

Blakemore's analysis raises further questions.

Blakemore also reports the case of a patient C, who feels she is being touched when she sees another person being touched; for example, when she sees A being touched behind A's shoulder, C feels that *she* is being touched on behind her own shoulder. C did not realize that this was an unusual phenomenon, until told so by investigators. Neurological evidence leads Blakemore to analyze this in terms of mirror neuron type phenomena. Mirror neurons are neurons (discovered in monkeys, with evidence for them existing in humans too) that become active when a subject either conducts a motion or sees that motion being conducted by another. These neurons activate in relation to meaningful motions, e.g., grasping or tearing, not in relation to kinetic subcomponents of motions.¹⁹ Blakemore's suggestion is, roughly, that in C these neurons, which would become active when C herself is touched, become so strongly active when C sees another being touched, that she feels that she is being touched.

2) The Ecstatic Body

These phenomena indeed seem uncanny. But let us ask if the first set of phenomena, in which subjects experience themselves feeling in or controlling alien things, are illusions, which is the way they are conceptualized in the literature. Ramachandran explains the phantom nose and head by invoking a best possible inference mechanism in the brain: it is improbable that the tapping sequence in the subject's finger and the one felt in the subject's nose are identical by chance, so the nose must be displaced; likewise it is improbable that the lips of the dummy should be perfectly synchronized with the subject's lips, so the subject must have taken over the dummy. Similarly with the rubber

hand: it is improbable that the probings seen on the rubber hand should synchronize so well with the probings felt in the subject's hand, so the rubber hand must be the subject's hand. These are illusions because the inference is wrong: the nose, face and hand that are by inference claimed to be the body's own do not in fact belong to the body.

Here Merleau-Ponty, and more recently psychologists such as Turvey and Carello, help by cautioning against conceiving such phenomena as illusions, as if they are *mistakes*.²⁰ Rather, they urge, 'illusions' show that the referent of perception is quite different than the object measured and conceived by the scientist. In the case of Turvey and Carello, the subject's estimations of the length of a hidden object wielded in hand do not show that the subject is in error, but that the referent of felt-length is the "wieldiness" of the object, rather than the geometrical-length measured by the scientist. Unwieldy things are heavy, wieldy things are light; our feeling of length refers to this wieldiness.

What might the 'illusory' phenomena I have cited reveal about the referent of our feeling of our own body? That the feeling of the body is *not* the result of an inference that takes the solid body measured by the scientist as premise, and resolves otherwise improbable couplings between body and world by an 'illusory' distortion of our feeling of the objective body; the referent of the felt-body is based on meaningful feeling or action that we can engage in the world, rather than the geometrical-body, in the way that felt-length is specified by wieldiness, rather than the geometrical length.²¹ But this remains vague.

What if we were to go in Ramachandran's direction? Would we not have to say why the brain does, and how it can, infer something as bizarre as a displaced nose, or an outside head in our

control? If characteristics of the objective body serve as premises of the inferential process, and if what is at stake in the inference is accurate modelling of the body for efficacious action, then why is the result so strangely plastic and seemingly inaccurate? What, furthermore, is the precise evolutionary benefit of the observed distortions, or what evolutionary ‘spandrel’ yields such uncanny results? On that head, what is the benefit of having a representation of the body in the first place? Who needs a model of her or his own head such that improbable patterns are taken to be referring to what it models? Here we can recall roboticist Rodney Brook’s insistence that robots can get around without models of either their bodies or the world.²² Why evolve a model of the world if it is already there? *A fortiori* with the body. It is the Cartesian ghost in the machine that needs a model of the body; everybody else already *is* a body.

Underlying these critical questions is the following conceptual point. To account for the illusion, Ramachandran appeals to a feeling of the body that stems from interactive explorations. As Ramachandran and Armel put it in a discussion of the rubber hand ‘illusion,’ “What is most surprising about [the rubber hand] illusion is that a lifetime of experience should be negated by just a few minutes of the right kind of sensory stimulation. One’s body image, despite its appearance of durability, is a transitory internal construct that can be easily and profoundly modified.”²³ But that begs the question of why uncanny feelings of the body, stemming from interactions, are to be called illusions—if one’s feeling of one’s body is a transitory construct that can be modified by interactions, then why is it illusory if it gets constructed in a novel way in an unusual interactive situation? Alternately, if such a feeling is called an illusion because it violates a normal model,

then we need to claim that there is a normal model established in advance of the interaction. But if we said all feeling of the body arises from interaction, then we would need to ask how the normal model arises from interaction—what is the criterion of normalcy within interaction, and what is the benefit of a fixed normal model given that the body bothers to make sense of interaction as a feeling of the body? (If we said the normal model is determined by averaging, etc., we would have to allow that this norm is dynamic, since we grow, and also sometimes our body norm changes, through catastrophes or their remedy with prosthetics. So we would still have to ask: in virtue of what does a deviation count as an illusion, versus a dynamic reconfiguration.) And if we said the normal model does not arise from interaction, then we would have to ask why there is an interactive add-on over and above a fixed, normal model.

Let us return to the question of interaction and illusion by recalling J.J. Gibson’s ecological attack on representationalism and models, and his concept of affordances, which is most helpful here.²⁴ Moving in the world perceptually specifies what the world affords for me, but also perceptually specifies what my body affords in the way of doing things in the world. When I take the cane in hand, I can feel with it; tapping affords perceptual information about the distal tactile world—but I also perceive my body as affording a prolonged reach. I propose that our body-feeling does not refer to the body as object, but to the body as affording interaction with the world; body-feeling is the flip side of what the perceived world affords us, it is a way of feeling what our body affords, not a way of getting a measurement of the objective body. Think of someone getting ready to jump over a ditch: in swinging her arms back and forth she is not measuring her geometrical body,

she is not just gathering momentum, she is getting a feel for how far her body can go in the world, and thus getting a feel for how 'big' her body is, not in terms of its geometry, but in terms of spanning movement-spaces. It is not illusory to feel your lips moving in a dummy, anymore than it is illusory to feel yourself in control of a car in a video-game, or feel yourself in control of a kite whose string you are pulling. In Ramachandran's set-up you are in fact seeing your lips move in a dummy, and feeling yourself in control of it is your way of feeling what the object really affords you. It really does afford something unusual, namely, projecting your voice or lips into a distal head. The uncanniness, though, is not in your body merely, but reflects an uncanny object—imagine, a dummy that does what you do! But on the other hand, a child brought up in an environment where the set-up is prolonged and made dynamic might feel nothing uncanny about it. And is not the young child's world more or less like this, with adults gushingly repeating everything on the child's lips, as if to show: you are already speaking in us, we are your dummies? If adults were not children's dummies, would children ever learn to speak? If we did not have the proclivity for experiencing the phantom head in the way that Ramachandran describes, would we ever learn to speak or lip-read?

Similarly with the rubber hand 'illusion.' If we really look at what is going on in the experimental situation, the subject *is feeling things with the rubber hand*, just as much as a blind person is feeling things with a cane. In virtue of the experimenter's function in the experimental situation, namely, coordinating touches in the rubber hand with touches in the subject's real hand, the rubber hand is functioning as a low-grade virtual prosthesis. There is a statistically significant tendency for experimental subjects to answer the

following questions in the affirmative: 1) "It seemed as if I were feeling the touch of the paintbrush in the location where I saw the rubber hand touched"; 2) "It seemed as though the touch I felt was caused by the paintbrush touching the rubber hand"; 3) "I felt as if the rubber hand were my hand."²⁵ The experimenters take these answers as evidence for an *illusion*. (Note, though, that they prejudice the issue by posing their questions in terms of "seeming"s and "as if"s, in terms of illusion.) But really: in the experimental setup, the touch felt by the subject *is* caused by the paintbrush, because the experimenter is serving as a causal link between the paintbrush and the touches in the subject's hand; the rubber hand is *affording* a (passive, low-grade) feeling of touch, as a real hand would; and in virtue of this, it is a hand-type affordance.

Whether we go against Ramachandran and the other experimenters in saying that the phenomena are not illusions, or grant they are illusions but try to make sense of their specificity, we are led to the point that the feeling of the body is not a feeling of the body as a geometrical object but the flip side, the price, of having a moving, interactive absorption with the world. My underlying aim here is to focus on that interaction, to urge that the body is fundamentally ecstatic, first of all outside of itself, promiscuously absorbed in things. And this is what we also find in the phenomena of alien control, of C, and what is suggested by the sort of activity we find in mirror neurons: the body is not all over here, on its side of things, it is cross-cut with, tuned into, activities that are going on outside of it. What is the point of an explicit sense of body and world as decoupled independent poles if their interaction is the first concern of life? At the very least, should we not think that the sense of body and world as decoupled poles *results* from

coupling, rather than being presumed, independent terms leading to coupling?

Husserl and Merleau-Ponty, as is well known, argued that our encounter with others could only proceed through an irreducible coupling in which we feel a pre-reflective analogy or bond with others. This is required because we do not have access to the interiority of others, indeed, the problem of intersubjectivity is begged if we conceive our access to the subjectivity of others as access to a pure interiority. We must instead conceive the subjectivity of the other as surfacing in and being intimate with their bodies, in such a way that our bodily coupling with their subjective-bodies already and directly gives us a sense of their subjectivity.²⁶ But why, we might ask, is this coupling only necessary for perception of other selves? Don't *things* have an invisible life as well? I have never directly perceived the inside of a hockey puck, nor, I think, have I ever bothered inferring these insides, but nonetheless I sure have felt the massy insides of a hockey puck. That is, I do not experience myself holding a volume defined by the outer, tangibly accessible envelope of the puck and then inferring that it has an interior, which interior is inaccessible by direct perception. True, it *seems* I cannot directly perceive the thinking of an other person, whereas I could perceive the inside of a puck. But, as Merleau-Ponty points out, the perceptual reality of the puck's insides is their inexhaustibility: insides have further insides, backsides, etc. I could never get to the puck's insides, lay them bare; and if I did, they would not be present as the compact insides that I feel when holding the puck, since in my effort to lay them bare I would have spread them out. Nonetheless, I can perceive and grasp the puck's inexhaustible insides, and do so in a haptic "glance," by hefting it.²⁷ Is this not dependent on my ability to couple with the puck, to heft it as it hefts me when it keeps

on moving as I reverse my hefting movement? Is not my feeling of the mass of things inseparably a feeling of my own mass, do I not feel their mass in my mass, in the way they tug on me when I move them about *with* my body? If I did not already summarize the inexhaustible insides of my massy body in the simple gesture of moving my body to heft things, my hefting would never be able to summarize the inexhaustible insides of things.

On this point about coupling, we could even return to the neurological results about mirror neurons, namely, that the neurons that fire when a monkey produces a certain hand gesture are the same neurons that fire when the monkey sees another monkey—or human—perform that gesture.²⁸ Of course we should not give a representationalist interpretation of the result, rather we should argue that monkey-see and monkey-do are not two different things, but two sides of one axis of interaction with the world. If phenomenology will not satisfy and we need to talk neurology and evolution, should we not realize that there is a certain economy in having creatures that first of all latch on to what they need, and get on with life, rather than beginning by modelling the self and then modelling the world? Only a Cartesian mechanist would build a creature by presuming that first of all there is an outside versus an inside, and then bang away at the problem of getting the outside into the inside. Creatures live and grow by mixing insides and outsides.²⁹ It is only philosophers with a tradition of skepticism behind them who have the luxury, pretence and innovative concepts for suspending the mix of inside and outside. And when they place the distinction between inside and outside at the cornerstone of analyses of life and perception, those analyses go badly. The inside-outside distinction is the *result* of experience, not its basis.³⁰ The phenomena that we find in the case of C, alien control,

and the rubber hand, phantom head and nose—phenomena that blur and overlap insides and outsides—are not forged out of nothing, they are not an entirely new weave, they are what arise when the warp, weft and weave of experience, which *always already* stretches across us and the world, is pulled in an unusual direction. Usually we do not notice how tightly woven we are into the world, because that weave itself gives rise to a feeling of distinction from the world.

The body is ecstatic, outside of itself, mired in things, coupled to things through mass, movement, light and vibrations. We are pre-occupied with things, we latch onto bits of the world that resonate and interact with the body, things that would promise completion and fulfilment of our open ended being in the world.

3) Reversing the Question: Perception as Breaking with Things and the World

Ultimately this leads to a reversal of the usual questions posed by perceptual phenomena discussed above. The problem is not how an objective body over here is distorted and projected outside itself, the problem is how a body that lives by already being coupled with the outside world ever has a feeling of simply being an object over here. The illusion is not that our body projects into the world, the illusion is our everyday sense that we are distinct from the world. It is because we do not notice how we are always entranced and entrained by the world, because we take ourselves to be distinct from it that the magician can pull the threads of perception and conjure up illusions. I'd wager magicians would go broke if the body could tear itself away from things, really act on the sense of being distinct from them. The body outside of itself is not uncanny. The uncanny thing is a

body that is just over here, that hurts, that breaks, that has lost its ken *of* things, its ken *with* things, that no longer feels things, but feels itself.

But betwixt a body vanishing in things and a body that can only feel itself as object, there is the usual body that feels things *but also* itself, and feels its objectivity as correlative to the objectivity of things. It is said that moths are drawn to light-bulbs because they fly so as to keep an equal balance of light in both eyes; with a moon infinitely remote, such flight guides the moths in a straight line; with a nearby bulb on the porch, it guides the moths straight into the light. There is no Cartesian moth, doubting whether night-light is the moon. The moth is rather a crepuscular Narcissus, taking the world as a reflection of its seeing, winging to its death in the "mothlight."³¹ How do we do better than moths? Do we? What breaks our entrancement and provokes doubt? How do we get past the narcissism that Merleau-Ponty, in *The Visible and the Invisible*, marks as fundamental to vision, past a body that finds itself reflected in all things and all things reflected in itself?³² If we answer by pretending that we were never entranced, moth-like, by the sway of things, that we were born skeptics, that the subject-object distinction was entirely obvious and explicit from the start, then we shall have begged the question and reinvigorated all dualisms (not to mention making any account of evolution implausible, and making magic into a confusion and avoidable error, rather than a compelling outgrowth inherent in perception).

My hypothesis is that the resonant movement of entrancement leads to its own break-up. The hypothesis stems from study of Turvey and Carello's results about wielding. Consider wielding a tennis racket. Wielding gives you a sense of the racket's length, but the referent of felt-length is a wieldiness that arises only in the moving-

coupling of body and racket. You cannot feel the racket's length without also feeling the length of your body as extended by the racket. Given the reversible structure of touch, there is a sort of narcissism in holding a racket: you feel the racket by feeling yourself, and feel yourself in feeling the racket. How do you break out of this narcissism? When you smoothly swing with the racket, you do not even feel its length, or your body's length, you just feel what the whole coupling affords, you feel the length of a racket-augmented body. It is when you disrupt this smooth swing, by shaking the racket or twiddling it, or when something hitting the racket disrupts your swing, that you feel a more objective length of a racket over against a more objective length of the body.³³

In the Marx Brothers's *Duck Soup* there is a scene in which Groucho looks at Harpo through an empty mirror-frame (Harpo has smashed through it). Harpo and Groucho are dressed identically (grease-paint moustache, glasses, night-gown, socks, night-cap, cigar), and Harpo mimics Groucho (or is it the other way around?). Imagine Groucho, narcissist that he is, absorbed in this scene, or better, imagine Groucho brought up such that every occasion is this scene. Ramachandran's result suggests that such a Groucho might feel himself animating every other body and never having a sense of a "my-own-body-over-here." But see what happens. Groucho is not just a narcissist, like every narcissist he is an egoist, moving his way; he's a show-off, and as usual pushes things to their limit, becoming ever more manic. Surprisingly, magically, Harpo keeps up, but eventually the line is crossed: they slip out of synch. Groucho breaks from Harpo's body and falls back on his own side of things. The momentum of his own entranced movement lags with that of Harpo, and breaks his resonant narcissism.

My hypothesis is that all cases of objective perception come back to something like this. Perception is the breaking of the mirror, the decoupling of the couple, resonance lost rather than resonance regained or constituted.

In the *Philosophy of Mind*, Hegel writes that the most rational thing a child can do with his toys is break them. I am trying to suggest that the most *sensitive* thing we can do with things is break *with* them. When I say "break *with* them" I am using the "with" in a double sense, to convey a complex relation in which it is our coupling with things that allows us to break away from them, as two people in outer space might link hands with one another in order to whirl about their common centre, only to build up enough momentum to fly off in their own directions. These two people (to play on an interesting English locution) "break up with each other": they break apart only by joining with each other, as is the case in any instance where two people "break up with each other" (they need each other to do the breaking up, else their would be no bond to be broken).

Similarly with perception. I sense the tennis racket as object by *not* letting it swing me along, by *not* letting my body swing along with the racket, but *by using the racket itself* to break up that swinging relation: I break *away from* the racket, sense it, by breaking *with* it, using it to achieve that breaking movement. But here, like the child who breaks toys to show a rationality over and above absorption in play routines, to step beyond things in acts of perception we also break things in another, third sense: we break them in the sense of delimiting them, dispensing with their full texture in order to have a perceptual sense that matters for us. To feel the insides of the hockey puck in a haptic glance, is to neglect those insides in their own right, and to pay attention to them only insofar as, when I

move with the puck in hand, its movement breaks into mine, and vice versa. As Merleau-Ponty remarks, perception is a violent act.³⁴

4) Emotion, Movement and the Nature of Breakage

To engage one last series of provocations I would like to suggest that the resonant movement I have been speaking of, as generating perceptual sense, is what we experience in emotion, in that overall swaying with the world that we might talk about under the heading mood. When my bike-ride turns to joy I no longer feel myself as an I-myself painfully labouring from spot to spot; I resonate as a pole within the sweeping gesture of rushing wind, blue sky, rustling leaves that I am setting off through my movement; I am not inscribed over here, but en-joyed in a resonant world. Should I become entirely en-joyed, absorbed in enjoyment, I would lose sense of a world over against me. The world that I do perceive, blue sky, trees, wind, is what breaks off at the edges of my moving enjoyment, like the rough wake in which the resonant coupling of boat and water expands into a break that has been implied all along. Perceptual movement is emotion elaborating itself to its breaking point in its passage through the world—and this elaboration, I think, is what Merleau-Ponty calls expression. Emotion can turn from a movement of entrancement into the movement of expression when the movement of emotion mediates itself and thereby becomes a mediating movement. The child's hand swinging and waving in joy, by way of breaking into a gestural movement, turns into a hand that *indicates* a joyful world, and joy thereby becomes express for the child. Emotion thereby breaks into perception, perception of a joyful world. Here I would like to add that

the other is likely key to breakage, for it is the demand of the other that keeps us from plowing through the world in an emotional bubble, upsetting everything in our wake without a care; it is the demand of the other that enjoins me to grasp my emotional movement as mine, to be responsible for the breaking points implied in my emotion. Finally, it is the gesturing body of the other, the already elaborated language of the other, that lends a hand in letting me be responsible to my always emotional movement, by cultivating its expression. If the child breaks toys in order to make a break for the rational, and that break first looks like a nasty mood, because the child needs a better language in which to make her rationality express, perception is a kind of breakage in which our moods are constantly steered beyond the snapping point by the gestures of others who mute and elaborate our moods, at once absorbing us in things and helping us handle them. This is what adults do around infants, I think, or children do around one another, well or badly: they help turn moody absorption into expression.

If the above points about movement and perception are right, then perception is not a like a rationalist spider digesting the web of experience with transcendental concepts, nor is it like an empiricist spider being fed the results of an intricate web of associations. First there is a web of resonant movement. Then this resonance gives rise to its own break, and in this break a spider forms against flies. I think this sort of point about movement is what Merleau-Ponty might have been after in his thought of flesh, chiasm, reversibility, resonance, expression, the other.³⁵ This point would of course also require a revision of the concept of truth, for truth would no longer be beyond our being, but in the wake of it.

But this leaves us with a new difficulty, namely rethinking movement.

How are we to think of movement as having this fundamental ontological role, how are we to think of it in terms of resonance, how are we to think what Merleau-Ponty had called structure as arising in resonance-breaking? My own efforts draw on Bergson in relation to Merleau-Ponty. Both these philosophers, and others too, imply that rethinking perception in terms of movement means rethinking nature as well.³⁶ The resonant yet breakable movement of perception must unfold from the movement of nature. But then we have to think of natural movement as outside of itself too, as capable of giving rise to something new because something changes when movement stretches out. Nature would have to be conceived as a web of ecstatic movements that overlap one another, in which the playing back and forth of movement across places and things leads to a difference in movement, to its reorganization, to what contemporary science calls self-organization. But I am convinced that self-organization cannot be reduced to a fixed set of laws—such lawful organization is no longer self-organizing, and appeal to it replaces one abstract transcendental spider with another. Self-organization arises across differences in movement, differences irreducible to fixed law, differences stuck across places and moving things. So there would have to be a sort of difference in movement in nature.³⁷ This perhaps, is what Hegel calls the necessary contingency of actuality, which is to be understood in terms of the concept; what Merleau-Ponty identified as a nothingness that would not be opposed to being but part of it; what Bergson and Deleuze seek in different ways in the virtual. In any case, it seems to me that the phenomena of the ecstatic body, and perception as a phenomenon of an ecstatic body, point us back to an ecstatic nature that breaks itself up through its own logic of

movement, and that perception is an amplification of that logic of movement.

¹ Martin Heidegger, *Being and Time*, trans. John Macquarrie and Edward Robinson (New York: Harper and Row, 1962), §13, pg. 62 in the standard pagination. On the significance of this point, see Frederick A. Olafson, *Heidegger and the Philosophy of Mind* (New Haven: Yale University Press, 1987).

² Friedrich Wilhelm Joseph von Schelling, *System of Transcendental Idealism*, trans. Peter Heath (Charlottesville: University Press of Virginia, 1978).

³ Maurice Merleau-Ponty, *Le visible et l'invisible* (Paris: Galimard, 1979), Maurice Merleau-Ponty, *The Visible and the Invisible*, trans. Alphonso Lingis (Evanston, IL: Northwestern University Press, 1968), hereinafter *VI*, followed by page numbers in these respective editions, separated by slashes. On Deleuzian transcendental empiricism, see Constantin V. Boundas, "Deleuze-Bergson: an Ontology of the Virtual," in *Deleuze: A Critical Reader*, ed. Paul Patton (Oxford: Blackwell, 1996), 81-106, which, in addition to clarifying many points about the virtual, is notable for situating Deleuze's transcendental empiricism in relation to both Kant and Bergson, which is especially helpful for relating Merleau-Ponty's later concerns forward to Deleuze, and back to German idealism.

⁴ Renaud Barbaras, *Le désir et la distance: Introduction à une phénoménologie de la perception* (Paris: J. Vrin, 1999), Renaud Barbaras, *Desire and Distance*, trans. Paul B. Milan (Stanford: Stanford University Press, 2006), Renaud Barbaras, "Perception and Movement: The End of the Metaphysical Approach," in *Chiasms: Merleau-Ponty's Notion of Flesh*, ed. Fred

Evans and Leonard Lawlor (Albany: State University of New York Press, 2000), 77-87.

⁵ J.J. Gibson, *The Senses Considered as Perceptual Systems* (Boston: Houghton Mifflin, 1966), J.J. Gibson, *The Ecological Approach to Visual Perception* (Boston: Houghton Mifflin, 1979).

⁶ This is why, I would argue, the thermostat cannot be said to perceive temperature, and why such mechanisms cannot serve as a model for perceptual systems.

⁷ See Francisco J. Varela, "Organism: A Meshwork of Selfless Selves," in *Organism and the Origins of Self*, ed. Alfred I. Tauber, Boston Studies in the Philosophy of Science (Dordrecht, Netherlands: Kluwer, 1991), 79-107; on thermodynamic views of the organism, see Eric D. Schneider and Dorion Sagan, *Into the Cool: Energy Flow, Thermodynamics, and Life* (Chicago: University of Chicago Press, 2005) and J. Scott Turner, *The Extended Organism: The Physiology of Animal-Built Structures* (Cambridge, Mass.: Harvard University Press, 2000); the latter importantly argues that from a thermodynamic point of view, structures such as termite mounds, worm tunnels, and air bubble gills that diving beetles affix to themselves are part of the organism's physiology, further complicating any simple claims about biologically fixed or non-(thermo) dynamic divisions between inside and outside.

⁸ David Morris, "Touching Intelligence," *Journal of the Philosophy of Sport* 29, no. 149-162 (2002).

⁹ Heidegger would speak here of the *Zuhanden*, the ready-to-hand; what I am doing, in part, is taking this thought into the details of perception and movement, tracing it at the pre-personal level, versus Heidegger's tracing of it at the level where

we speak about or describe the significance of the things toward which we comport ourselves in circumspection. (Cf. Heidegger, *Being and Time*, esp. I.3.)

¹⁰ I have touched upon this in a previous article in *Chiasmi*, David Morris, "What is Living and What is Non-Living in Merleau-Ponty's Philosophy of Movement and Expression," *Chiasmi International* 7 (2006), and also David Morris, "Bergsonian Intuition, Husserlian Variation, Peircean Abduction: Toward a Relation Between Method, Sense and Nature," *Southern Journal of Philosophy* 43 (2005): 267-298.

¹¹ Maurice Merleau-Ponty, "Eye and Mind," in *The Primacy of Perception* (Evanston, IL: Northwestern University Press, 1964), 159-190, Maurice Merleau-Ponty, *L'Oeil et l'Esprit* (Saint-Amand, France: Galimard, 1964).

¹² Matthew Botvinick and Jonathan Cohen, "Rubber Hands "Feel" Touch That Eyes See," *Nature* 391 (1998): 756, Matthew Botvinick, "Probing the Neural Basis of Body Ownership," *Science* 305 (2004): 782-783, H. Henrik Ehrsson, Charles Spence, and Richard E. Passingham, "That's My Hand! Activity in Premotor Cortex Reflects Feeling of Ownership of a Limb," *Science* 305 (2004): 875-877.

¹³ Vilayanur S. Ramachandran and W Hirstein, "The Perception of Phantom Limbs: The D.O. Hebb Lecture," *Brain* 121 (1998): 1603-1630, K. Carrie Armel and Vilayanur S. Ramachandran, "Projecting Sensation to External Objects: Evidence from Skin Conductance Response," *Proceedings of the Royal Society of London* 270 (2003): 1499-1506.

¹⁴ H. Henrik Ehrsson, Nicholas P. Holmes, and Richard E. Passingham, "Touching a Rubber Hand: Feeling of Body Ownership Is Associated with Activity in Multisensory

Brain Areas," *The Journal of Neuroscience* 25 (2005): 10564-10573.

¹⁵ VS Ramachandran and W Hirstein, "Three Laws of Qualia: What Neurology Tells Us About the Biological Function of Consciousness, Qualia and the Self," in *Models of the Self*, ed. Shaun Gallagher and Jonathan Shear (Thorverton, UK: Imprint Academic, 1999), 83-112, 106-107.

¹⁶ This paper was initially presented in 2003, before the neurological evidence and discussions in Botvinick, "Probing the Neural Basis of Body Ownership," Ehrsson, Spence, and Passingham, "That's My Hand! Activity in Premotor Cortex Reflects Feeling of Ownership of a Limb," Ehrsson, Holmes, and Passingham, "Touching a Rubber Hand: Feeling of Body Ownership Is Associated with Activity in Multisensory Brain Areas," . It should be noted that in that presentation a link was drawn between the rubber hand type illusions and mirror neuron type phenomena.

¹⁷ Sarah-Jayne Blakemore, "Deluding the Motor System," *Consciousness and Cognition* 12 (2003): 647-655, c.f. Günther Knoblich and Natalie Sebanz, "Agency in the Face of Error," *Trends in Cognitive Sciences* 9 (2005): 259-261.

¹⁸ Shaun Gallagher, "Philosophical Conceptions of the Self: Implications for Cognitive Science," *Trends in Cognitive Sciences* 4 (2000): 14-21, Shaun Gallagher, "Self-Reference and Schizophrenia: A Cognitive Model of Immunity to Error through Misidentification," in *Exploring the Self: Philosophical and Psychopathological Perspectives on Self-Experience*, ed. Dan Zahavi (Amsterdam: John Benjamins Publishing Company, 2000), 203-239, Shaun Gallagher, "Agency, Ownership and Alien Control in Schizophrenia," in *The Structure And Development Of Self-Consciousness: Interdisciplinary*

Perspectives, ed. Dan Zahavi, Thor Grünbaum, and Josef Parnas (Amsterdam: John Benjamins Publishing Company, 2004), 89-104.

¹⁹ See Vittorio Gallese and Alvin Goldman, "Mirror Neurons and the Simulation Theory of Mind-Reading," *Trends in Cognitive Sciences* 2, no. 12 (1998): 493-501, Vittorio Gallese and George Lakoff, "The Brain's Concepts: The Role of the Sensory-Motor System in Conceptual Knowledge," (2005), Giacomo Rizzolatti and Michael A. Arbib, "Language Within Our Grasp," *Trends in Neuroscience* 21, no. 5 (1998): 188-194, Evan Thompson and Francisco J. Varela, "Radical Embodiment: Neural Dynamics and Consciousness," *Trends in Cognitive Sciences* 5, no. 10 (2001): 418-425.

²⁰ Maurice Merleau-Ponty, *Phénoménologie de la perception* (Paris: Galimard, 1945), Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New Jersey: The Humanities Press, 1962), Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 2002), on pages 11-15, 5-8, 5-10 in these respective editions. Hereinafter cited as *PP*, followed by the page numbers in the three editions, separated by slashes. Claudia Carello and Michael T. Turvey, "Rotational Invariants and Dynamic Touch," in *Touch, Representation and Blindness*, ed. Morton A. Heller (Oxford: Oxford University Press, 2000).

²¹ Turvey and Carello indeed suggest that we feel the length of our *own* limbs by wielding, which leads to a regress like Aristotle's on touch (see *On the Soul*): if the body as object is the medium of touch, then where does the body stop being object and start being the subject? With Turvey and Carello, we would have to ask where does the body stop being wielded and start doing the wielding?

²² Cf., e.g., R. Brooks, "Intelligence without Representation," *Artificial Intelligence* (1991): 139-159.

²³ Ramachandran and Hirstein, "The Perception of Phantom Limbs: The D.O. Hebb Lecture," , Armel and Ramachandran, "Projecting Sensation to External Objects: Evidence from Skin Conductance Response," , 1504.

²⁴ Gibson, *The Senses Considered as Perceptual Systems* , Gibson, *The Ecological Approach to Visual Perception* .

²⁵ Botvinick and Cohen, "Rubber Hands "Feel" Touch That Eyes See," .

²⁶ See Edmund Husserl, *Cartesian Meditations*, trans. Dorion Cairns (Dordrecht: Kluwer, 1991), "Fifth Meditation"; *PP*, esp. "The Body in its Sexual Being" and "Other Selves and the Human World"; Maurice Merleau-Ponty, "The Child's Relation with Others," in *The Primacy of Perception*, ed. James M. Edie (Evanston: Northwestern University Press, 1964), 96-155.

²⁷ For this concept of the glance, see Edward S. Casey, "The World at a Glance," in *Chiasms: Merleau-Ponty's Notion of Flesh*, ed. Fred Evans and Leonard Lawlor (Albany: State University of New York Press, 2000), 147-164.

²⁸ Gallese and Goldman, "Mirror Neurons and the Simulation Theory of Mind-Reading," .

²⁹ Cf. the points mentioned at the outset about thermodynamic views of organisms.

³⁰ Cf. Merleau-Ponty's criticism of the experience error in *PP*.

³¹ *Mothlight* is the title of a film by Stan Brakhage that is entirely composed of actual moth parts sandwiched between pieces of film and then step-printed.

³² Cf. *VI*, esp. 183/ 139. On this issue see David Michael Levin, "Visions of Narcissism: Intersubjectivity and the Reversals of Reflection," in *Merleau-Ponty Vivant*, ed. M.C. Dillon (Albany: SUNY Press, 1991).

³³ Morris, "Touching Intelligence," .

³⁴ *PP* 415/361/421.

³⁵ See especially "The Intertwining—The Chiasm" in *VI*.

³⁶ Most notably Renaud Barbaras, "The Movement of the Living as the Originary Foundation of Perceptual Intentionality," in *Naturalizing Phenomenology: Issues in Contemporary Phenomenology and Cognitive Science*, ed. Jean Petitot et al. (Stanford: Stanford University Press, 1999), 525-538, Barbaras, "Perception and Movement: The End of the Metaphysical Approach," in (, Maxine Sheets-Johnstone, *The Primacy of Movement* (Amsterdam: John Benjamins Publishing Company, 1999).

³⁷ This is perhaps what those interested in the connection between life and thermodynamics (Schneider and Sagan, *Into the Cool: Energy Flow, Thermodynamics, and Life* , Turner, *The Extended Organism: The Physiology of Animal-Built Structures*) are thinking about in a different way—what I am here calling movement is for them thermodynamic flows. Thermodynamic flows themselves give rise to organization as they cool down by dissipating energy. See also Lee Smolin, *The Life of the Cosmos* (New York: Oxford University Press, 1997).