

# THE OPEN BODY

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## ABSTRACT

In this paper we characterize the body as *constitutively open*. We first consider the notion of bodily openness at the basic level of its organic constitution. This will provide us a framework relevant for the understanding of the body open to its intersubjective world. We argue that the notion of "bodily openness" captures a constitutive dimension of intersubjectivity.

Generally speaking, there are two families of theories intending to characterize the constitutive relation between subjectivity and intersubjectivity: either the self is considered as (1) being constituted *prior to*, and as a condition of, its potential relation to the outside (intersubjective) world, or, contrastively, (2) the self is considered as being constituted *as a result* of its (intersubjective) relations with the outside world. Here, we pursue a conciliatory path, as we intend to show that these two positions are not necessarily in opposition to each other. But how can selfhood/subjectivity be both and at the same time primary *and* secondary, relative to otherness/intersubjectivity? Stated thusly, the question seems to border on incoherence but our intention here is to reconsider it in a framework that allows for the dissolution of this opposition. In particular, we will characterize the *relational autonomy* of the self: neither fully enclosed "inside" nor fully dissolved in or determined by what's "outside", the bodily self is best characterized by its fundamental "openness", which we will explore in a framework where *autonomy* and *relationality* are not contradictory but co-constitutive dimensions.

In the first section, we introduce the notions of "relational autonomy" and "openness" at the most basic level, i.e. the organic constitution of the body. We then specify the links we intend to tie between the organic and the intersubjective modes of being of the body. This then allows us to exploit the notions of "relational autonomy" and "openness" to better characterize bodily intersubjectivity. We conclude by considering the implication of our view for the understanding of the constitutive relation between subjectivity and intersubjectivity

**Keywords:** relational autonomy, organic constitution of the body, developmental psychology, enacted intersubjectivity, co-constitution of self and others.

## Introduction

In this paper we characterize the body as *constitutively open*. We first consider the notion of bodily openness at the basic level of its organic constitution. This will provide us a framework relevant for the understanding of the body open to its intersubjective world. We argue that the notion of "bodily openness" captures a constitutive dimension of selfhood and intersubjectivity. Generally speaking, there are two families of theories intending to characterize the constitutive relation between subjectivity and intersubjectivity: either the self is considered as (1) being constituted *prior to*, and as a condition of, its potential relation to the outside (intersubjective) world, or, contrastively, (2) the self is considered as being constituted *as a result* of its (intersubjective) relations with the outside world.

Descartes' formulation of the autonomy of the nonphysical *cogito* is perhaps the most vivid and well-known example of the first position. More recently, the phenomenologist Michel Henry (1973) has developed a radically internalist conception of subjectivity as pure non-relational interiority: a passive self-affection or *ipseity* said to be ontologically independent of any form of *alterity* (for extensive discussion and criticism, see Zahavi 1999). Even more recently, Galen Strawson has argued for a "Pearl View" of the self. We are, Strawson argues, sequences of single, self-sufficient, "ontically distinct" mental things (or subjects of experience) that are nevertheless distinct from that which we experience as well as all other things. But as a "thing", Strawson insists that the self is nevertheless part of "a set of neuron-and-neurotransmitter-(etc)-constituting atoms or fundamental particles in a certain state of activation" (Strawson 1999, p.21). Others argue that the self is identifiable with the brain itself (Brooks 1994) or with the neural mechanisms underwriting the brain's self-representational capacities (Churchland 2002). The common thread of these disparate views is that the self is in some important sense *autonomous*, that is to say, dissociable from the rest of the world. Put differently, subjectivity is not essentially intersubjective; the self is not determined by otherness.

With respect to the second position, George Herbert Mead's model of the social self is a prominent philosophical example. According to Mead, "The self is something which has a development; it is not initially there, at birth, but arises in the process of social experience and activity, that is, develops in the given individual as a result of his relations to that process as a whole and to other individuals within that process" (Mead 1934, p.135). A more recent view

along these lines is developed by Daniel Dennett. According to Dennett (1992), the self is a locus of personal and public narratives—a “center of narrative gravity”, in other words, ultimately constituted by the stories that it tells and has told about it. A consequence of this view is that the self is really “an abstract object” or a “theorist’s fiction” always constructed after-the-fact. Like Mead, Dennett’s narrative self is wholly a product of its social world, essentially constituted by intersubjectivity and otherness (i.e., shared linguistic practices and narrative structures). In short, this model of the self is *relational* all the way down.

Here, we reject the validity of this contrastive opposition. Instead, we pursue a conciliatory path, and intend to show that these two positions are not necessarily in opposition to each other. But how can selfhood/subjectivity be both and at the same time primary *and* secondary, relative to otherness/intersubjectivity? Stated thusly, the question seems to border on incoherence. Our intention here is to reconsider it in a framework that allows for the dissolution of this opposition. In particular, we will characterize the *relational autonomy* of the self: neither fully enclosed "inside" (e.g., the *cogito* or neural structures) nor fully dissolved in or determined by what's "outside" (e.g., social relations or linguistic/narrative structures), the self is instead a bodily self best characterized by its fundamental "openness", which we will explore in a framework where *autonomy* and *relationality* are not contradictory but co-constitutive dimensions.

In the first section, we introduce the notions of "relational autonomy" and "openness" at the most basic level, i.e., the organic constitution of the body. We then specify the links we intend to establish between the organic and the intersubjective modes of being of the body. This allows us to exploit the notions of "relational autonomy" and "openness" to better characterize the bodily self and intersubjectivity. We conclude by considering the implication of our view for the understanding of the constitutive relation between subjectivity and intersubjectivity. However, note that we do not intend to describe in any detail how the outer realm plays a constitutive role within the self. This is so because the present paper intends to be programmatic. We assume that the theoretical description here developed is the necessary basis to then develop further empirical investigations of how the physical and social environments are, respectively, involved in particular cases of self-constitution.

## 1. The organic open body

### 1.1. *Self-constitution*

Our characterization of bodily openness at the organic level draws extensively on the work initiated by Francisco Varela and Humberto Maturana and pursued by Evan Thompson. To start with, the following definitions will be useful. A "system" can be defined as a "collection of related entities or processes that stands out from a background as a single whole..." (Thompson 2007, p. 39). A system is said to be "autonomous" when it is "a self-determining system, as distinguished from a system determined from the outside" (Id. p. 37). "An autonomous system... is defined by its endogenous, self-organizing and self-controlling dynamics" (Id., p. 43).

The notion of *autopoiesis* (from the Greek: *auto* for "self" and *poiesis* for "production") is meant to characterize the autonomy of living systems. An autopoietic system "embodies a circular process of self-generation...and...continually re-creates the difference between itself and everything else" (Thompson 2007, p. 99; See also Varela 1979; Maturana & Varela 1980). The autopoietic unity is self-sustaining (as it actively maintains its own organization) through self-renewal (as it actively renews its own material constituents).

Varela and Thompson exploit these notions to define an "organic self", following the lead of Jonas for who "the introduction of the term 'self,' ...indicates the emergence, with life as such, of *internal identity* – and so, as one with that emergence, its *self-isolation* too from all the rest of reality" (1966, pp.82-3; our emphasis). For Thompson, too, autopoietic processes allow the "self-production of an *inside*" (Id. p.79; our emphasis) and "an autopoietic system is ...an individual in a sense that begins to be worthy of the term *self*" (Id. p. 75, see also p. 48). This view is quite radical and we do not intend to defend it here (but see Legrand 2004. To remain neutral on this issue without confusing system and self, we will talk about "system/self"). We believe that, whether or not one assumes such conception of organic selfhood, the notion of autopoietic autonomy can be relevantly exploited to clarify the issue at stake here, i.e., bodily openness.

Note that (contrary to our current aim, but as italicized in the previous paragraph) emphasis is often put on the "inside" that is constituted autopoietically; fairly so, since without such an inside that differentiates itself from the rest by self-generating a boundary, there would be no living system/self at all. However, this does not suffice to define the system/self as merely an inner

realm. In fact, such characterization would miss the specificity of autopoietic self-constitution. To better understand the latter, let us consider the notion of "structural coupling".

### *1.2. Structural coupling*

The notion of "structural coupling" captures the constitutive openness of the living organism to its surrounding world. Since it involves the perpetual renewal of the system/self's constituting material, the process of autopoietic constitution relies on its openness to its surrounding world. Therefore, "the relation of the organism to its material substance is of a double nature: ...Dependent on their availability as materials, it is independent of their sameness as these... the organic form stands in a dialectical relation of *needful freedom* to matter (Jonas 1966, p.80). *For this very reason*, the relation of the organism to the outside world where matter is to be found is, as well, as relation of needful freedom.

Understanding in its specificity the reliance of self-constitution on the outside world involves a reappraisal of the paradigm of input-output informational systems. Here, information is not reified "into something that preexists 'out there'" (Thompson 2007, p. 186). Rather, the idea is that "autonomous systems ...enact an environment inseparable from their own structure and actions" (Id. p. 59). At the organic level, the relation of the living organism to its world is not adequately conceived of as the mere ingestion of nutriments which are ready to be consumed. Rather, the "informational stimulus is not equivalent to the physical stimulus. The latter is definable independently of the organism; the former is not. The informational stimulus is the stimulus as informed by (the form or structure of) the organism" (Id. p. 69). Therefore, the relation with the outer realm should not be confused with a relation with an already constituted outside environment. Rather, the "outer" information relevant for autopoietic self-constitution is not determined independently of this very process of self-constitution. The outer world is characterized by the organism processing it, according to the "vital significance" of the stimulus for the organism in question.

### 1.3. Inner realm

On this basis, and as underlined above, the emphasis has mostly been put on the "inside" of the autopoietic system/self. To better understand the status given to this "inside", let us quote at length Varela (1992):

"the living system must distinguish itself from its environment, while at the same time maintaining its coupling.... Now, in this dialogic coupling between the living unity and the physico-chemical environment, *the balance is slightly weighted towards the living since it has the active role in this reciprocal coupling.* In defining what it is as unity, in the very same movement it defines what remains exterior to it, that is to say, its surrounding environment. A closer examination also makes it evident that this exteriorization can only be understood, so to speak, *from the "inside"*: the autopoietic unity creates a perspective from which the exterior is one, which cannot be confused with the physical surroundings as they appear to us as observers, the land of physical and chemical laws simpliciter, devoid of such perspectivism" (p. 7; emphasis altered).

The "slightly weighted" balance described here by Varela is characterized by Thompson in a more radical way: "although inside and outside are dynamically co-emergent, they do not share the same symmetrical relation. As Moreno and Barandiaran [2004, p. 17] explain: "the (self) generation of an inside is ontologically prior to the dichotomy in-out" (Thompson 2007, p. 79). But there is a tension here. For how would such ontological priority of the "inside" cohere with the characterization of the autopoietic system as *structurally coupled* to its environment?

### 1.4. Constitutive openness

Rather than giving too much weight to the inside, we wish to insist on the "dialogical", bi-directional, reciprocal relationship between self and world. We choose to focus on the inseparability of the "inside" and "outside" by interpreting the "outside" as playing a genuine constitutive role. This is not to say that the role played by the inside and the outside are entirely

symmetrical. The dissymmetry at stake, however, involves no ontological prioritizing of inside over outside.

If you wish, think of it as dissolving the chicken-egg dilemma: to the question "which comes first?" the current framework replies "both". Instead of picking-up information in an independent external environment, the system/self "shapes" its world by enacting relevant "information" inseparable from the self-constituting system itself; conversely, this process of self-constitution is itself inseparable from the world in which it occurs (Varela et al. 1991; Thompson 2007).

To clarify: this approach is not meant to contradict autopoiesis as defined in a Varelian fashion and as we understand it. The difference between Thompson's approach and ours is mostly a matter of focus. We argue that what the autopoietic view is attempting to achieve, i.e., the grounding of a genuine concept of autonomy as self-constitution, is misconceived if it is thought to contradict the process of structural coupling and the constitutive openness related to it. Of course, a view of autopoietic systems as being "made externally" would be a contradiction in terms. But the two radical views assuming either purely independent constitution or pure heteronomy are not the only options, and we oppose to them both a process of constitution through "relational autonomy", which we take to be faithful to autopoiesis as originally defined. Indeed, it is clear from the very notion of autopoiesis that the system/self defined here is *not* self-enclosed. Rather, otherness is correlative of selfhood (Thompson 2007, p. 49). The "self-isolation" defined by Jonas thus "cannot mean outright independence from the world" (Id. p. 150). Rather, Jonas himself insists on the constitutive "transcendence of life": "life is turned outward and toward the world in a peculiar relatedness of dependence and possibility... its self-concern... is essential openness for the encounter of outer being. Thus "world" is there from the earliest beginning..." (1966, p. 84). Likewise, Varela characterizes the autopoietic system/self by its "operational closure" but it should be clear that "the qualification "operational" emphasizes that closure is used in its mathematical sense of recursivity, and *not* in the sense of closedness or isolation from interaction, which would be, of course, nonsense" (Varela 1992, p.10). Therefore, "it is essential to understand that the idea of *closure* does not contradict that of openness. Closure doesn't mean a closed system" (Rudrauf et al. 2003, p. 28. See also Thompson 2007, p. 45, p. 448).

One may agree that an autopoietic system is open while balking at considering that it is *constitutively* open. However, that would miss the specificity of the structural coupling characterizing autopoietic processes. Again, such coupling involves that the autopoietic unit is not first constituted to be related to the outer realm only secondarily. Rather, the autopoietic unit is constituted *by* being related to the outer realm, hence the notion of what we term "relational autonomy". "Autonomy" comes from the Greek *auto* for "self" and *nomos* for "law". An autonomous being is thus defined as self-governing and independent. We argue here that biological systems (like organisms, persons, etc.) are both constitutively open and autonomous. We thus propose to conceive of a form of autonomy which is *relational*. Biological systems are relationally autonomous in that they are constituted by their bodily openness without thereby losing their autonomy. The notion of "relational autonomy" is not redundant with the notion of "autonomy" since the latter means independence while the former, importantly, involves dependence. We therefore intend here to reconcile the notions of constitutive relationality and autonomy. Conceiving of the notion of relational autonomy involves cutting across the divide between inner and outer realms since, in this framework, the inner realm cannot be defined without its domain of interaction with the outer realm.

To further clarify: We take here the term "constitution" in its etymological meaning, i.e., the Latin *cum* for "together" and *statuo* for "the fact to establish". Hence, an act of constitution corresponds to an act organizing the relationships between the different components (i.e., constituents) of a given unit. Constituents are elements/states/processes that are constitutive of the unit in question. Constituents cannot be merely defined negatively: to determine whether a given element/state/process is constitutive of a given unit, it is not enough to check whether this element/state/process is necessary for the unit to survive as such, since some elements/states/processes are necessary without being constitutive (e.g., H<sub>2</sub>O is necessary for the survival and functioning of biological organisms but is not constitutive of personhood). What matters for determining whether a given element/state/process is constitutive of a given unit is whether this element/state/process is *specific* to the given unit. The specificity of the element/state/process is defined by (1) its necessity and (2) its exclusivity (Ruby & Legrand 2007; Legrand & Ruby, In Press). A unit U is constituted by a given element E if E is specific to U, i.e., if E does not characterize non-U (exclusivity) and if changing or losing E would amount

to changing or losing U and/or its distinction from non-U (necessity). For example, as described above, it is thought that autopoietic processes constitute living units (Jonas 1966; Maturana & Varela 1996; Thompson 2007): autopoiesis does not characterize non-living entities (exclusivity) and a rupture of autopoiesis amounts to death (necessity). On this basis, we argue here that openness is constitutive of the biological body. Such openness does not characterize non-biological machines (exclusivity) and bodily closeness is incompatible with biological bodily processes (necessity). Following the same line of thought, we will now argue that a specific form of bodily openness is constitutive of intersubjective encounters. Such bodily openness characterizes intersubjective encounters, while it does not participate to non-intersubjective encounters (exclusivity) and bodily closeness disrupts intersubjective encounters (necessity). Space does not allow us to detail here the effects of bodily closeness and the forms of non-intersubjective encounters. We will rather focus on the way bodily openness characterizes intersubjective encounters.

To state it differently, according to our reading of the notion of "autopoiesis", an autonomous system/self is constituted *jointly* by its inner organization and its openness. Here, we will assume the former (inner organization), and will focus on the examination of the latter dimension (openness). In what follows, the characterization of autonomous system/self as structurally coupled, i.e., constitutively open to its surrounding world, will be exploited beyond the organic level that we considered up to now. In particular, we will export the notion of *relational autonomy* to the field of intersubjectivity. In this field, the idea that selfhood is an inner realm or inner dimension of being is either assumed or rejected. Here, we argue that the self is an autonomous being but we avoid enclosing it within an inner realm by connecting this inner dimension with its co-constitutive counterpart: openness.

## **2. From organic relational autonomy to intersubjectivity**

As argued above, the body is organically open. This open body, we will now argue, is fundamentally an openly *intersubjective body*. Before spelling out what this means, a word needs to be said about the bridge we intend to cross between the organic and the intersubjective orders. Our point is not to reduce the social order to the organic one, nor to generalize organic processes to the social domain. Our aim is more modest. We intend to argue that the body, both as organic and as intersubjective, is open in a way that can be better understood through the reading of the

notion of relational autonomy offered by the theory of autopoiesis. We acknowledge that the immersion in an intersubjective environment involves an "identity generation underdetermined by metabolism" (Di Paolo 2009). In an intersubjective domain, forms of selfhood and subjectivity emerge which otherwise do not if the world is not lived intersubjectively. According to the very notion of structural coupling (see above), any modification of the outer domain (e.g., from a solitary to an intersubjective world) impacts the inner organization of the system/self in ways allowing the latter to actually relate to this new environment (Jonas 1966, pp. 106-7). We thus do not advocate that intersubjectivity is constitutive of bodily openness but rather that bodily openness is constitutive of intersubjectivity. We return to the issue of intersubjective constitution in the concluding section.

Our motivation is to propose a conception of intersubjectivity in a naturalistic, non-reductionist framework. The most basic requirement for this to happen is to consider that the understanding of organic self-constitution proposed above, and the conception of intersubjectivity that we will propose below, are reciprocally constraining: one order should not violate what is viable for the other order. The simplest way to see that two orders are compatible with each other is to detect that they are characterized by equivalent dimensions. As we saw above, at the organic level, the body is constitutively characterized by its openness; we thus now need to check whether an equivalent dimension of bodily openness constitutes intersubjectivity.

In this non-reductionist approach, we consider that the body cannot be fully understood by conceiving it merely as a physical organism; nor is it exhaustively categorized as a lived, subjective perspective on the world, over against a world of physical things and other subjects. Rather, it is both of these. In this sense, the living body has a unique "two-sidedness". As phenomenologically sensitive thinkers such as Husserl, Kitaro Nishida, Sartre, and Merleau-Ponty (among others) have insisted, the body is an organism embedded *in* the world as well as a subjective perspective *on* the world. Our concern in what follows is to explore how this two-sidedness is opened up within our intersubjective engagements.

### 3. The intersubjective open body

#### 3.1 Bodily intersubjectivity

Let us exploit a suggestive remark by Merleau-Ponty as a platform to expose our view. This passage serves to clarify several ways that the open body is an intersubjective body—a perceiving, acting, and feeling body-in-relation. Merleau-Ponty writes:

I experience my own body as the power of adopting certain forms of behavior and a certain world, and I am given to myself merely as a certain hold upon the world; now, it is precisely my body which perceives the body of another, and discovers in that other body a miraculous prolongation of my own intentions, a familiar way of dealing with the world. Henceforth, as the parts of my body together comprise a system, so my body and the other's are one whole, two sides of one and the same phenomenon..." (1962/2003, p. 412).

For our purposes, we can take two lessons from this rich passage. The first concerns the intermingling of embodiment and intersubjectivity: "it is precisely my body which perceives the body of another". As psychologist Peter Hobson notes, it appears that, developmentally, we come into the world automatically recognizing that "a person is the kind of thing with which one can feel and share things, and the kind of thing with which one can communicate...We have a basic response to expressions of feeling in others—a response that is more basic than thought" (Hobson 2002, p.59-60). Before we acquire the multiple concepts or folk psychology underlying a "theory of mind" (Premack and Woodruff 1978), we are first coupled to other subjects by a more primitive relation of "interaffectivity" (Stern 1993, p.210). This interaffectivity is rooted in our bodily relatedness to others. Intersubjectivity, the ability to understandingly relate to others, is first and foremost an embodied skill; it is not primarily detached mind-reading but interactive bodily practices (Gallagher 2001, 2008). We will return to this issue below with the discussion of data from developmental psychology.

The second point we wish to extract from Merleau-Ponty's words concerns the bi-directional relation entertained by self and others through the encounter of their body. The expressive body

of the other is implicitly recognized as "a miraculous prolongation of my own intentions". My relation to another is robustly *bodily* in that it involves a kind of "bodily resonance".<sup>1</sup> I experience others by interacting with *their* body as well as by experiencing *my own* bodily reaction to others' presence/behavior. The expressive gestures of another person (e.g., broad smile, clenched fist, or expectant posture) are not only perceived as conveying intersubjectively salient information, such as that person's mood or particular emotional states at that moment. Beyond this, these gestures elicit bodily (affective) reactions and are experienced as marking motor possibilities for my *own* action—possibilities that I can actualize in virtue of my having the sort of body that I do, and in virtue of my implicitly<sup>2</sup> experiencing that the body I have can also do the things it experiences another person's body doing. In this sense, the other's body resonates with my own and conversely: my and others' body are coupled at the behavioral and experiential levels. As Merleau-Ponty puts it, "my body and the other's are one whole, two sides of the same phenomenon" in ways which remind the structural coupling of inner and outer realms at the organic level (described above). Like at the organic level, what matters here is that bodily openness is bi-directional. On the one hand, the open body is poised to perceive, feel, explore and respond in emotional ways to the people it encounters. On the other hand, the behavior, attention, and expressiveness of other people disclose the bodily subject to herself *as* a bodily subject, a subject capable of interacting with and being responsively affected by the world and by other people. The form of the intersubjective body's "responsive comportment" thus opens up the bodily self in its two-sidedness: that is, as both object (i.e., a concrete organism in a physical world) and subject (i.e., a lived body). To use the terminology introduced above: this mode of poised and responsive inhabitation within the social world involves the bodily self as an

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<sup>1</sup> This way of putting things clearly echoes the notion of "motor resonance" one finds in the mirror neuron/shared representations literature (Rizzolatti & Sinigaglia 2007). Our use of this term differs, however: the "motor resonance" discussed in the mirror neuron literature is active at the neuronal (i.e., subpersonal) level and thus cannot be spoken of as a structure of consciousness with which we are concerned here.

<sup>2</sup> By this we simply mean that these action-potentials of the body are immediately known without the agent having to reflect on them in any second-order way.

autonomous being (characterized by its subjective experience) who is, at the same time, relational (characterized by its encounter with others)<sup>3</sup>.

### 3.2. *Affective openness to others*

The body's intersubjective structure emerges from its sensorimotor-affective openness to a world inhabited by other subjects. By labeling this form of openness "sensorimotor-affective", we are intentionally stressing the tight link between perceiving, acting and feeling. When we understandingly engage with another person, perception and affect are both co-present as two intermingled aspects of a single coherent process. To engage with another person "understandingly" is simply to interact with another *as* an embodied and emotional agent, and to interact with their expressive behavior in a way suggesting that I implicitly recognize them as possessing a unique emotional life that I can engage with and, to a certain extent, manipulate by calibrating my own embodied responses to their expressive behavior (e.g., by smiling and laughing coyly, or by frowning and sneering menacingly). Remember that at the organic level, the organism does not pick up information which is already pre-determined out there (see above the notion of "structural coupling"), but rather enacts such information as a function of its vital significance. Likewise here, we do not first perceive the movements, actions, intentions, and utterances of another person as neutrally-given information and only later develop affective/emotional interpretations and felt responses to them. Rather, our intersubjective engagements are always given with a certain affective coloring, however subtle it may be. In other terms, intersubjectivity is enacted in resonance with bodily subjectivity: according to the affective relevance of others' state for the bodily state of the subject himself. This affective saturation allows us to intuitively and meaningfully engage with other subjects *as* embodied and intersubjectively embedded subjects with minds, experiences, and emotions similar to our own. Jointly to the encounter with others based on the experience of both their body and one's own, it is crucial to underline that, reciprocally, one's experience of one's own body is itself mediated by others. This is best evidenced by the feeling of shame or shyness. Recent evidence suggest that such "relation emotions" are present very early in infancy (from two-month old; see Reddy,

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<sup>3</sup> There are two additional points worth noticing in Merleau-Ponty's quote, but we will not develop them here: first, the idea that I primarily experience my body in the world (Legrand 2007), secondly, the idea that I experience others by sharing a common world with them (De Preester 2008).

2008) and "emerge because we have relations ...not internal states...[but] ways of beings with the other person" (Reddy 2005, p. 202). Her observations have led Reddy to argue that "Being self-conscious might leave us not with images of the self but instead with images of the things and people that stirred the 'self-conscious' feelings or thoughts" (Ibid). In this view, "interpersonal awareness... is not seen as one in which a "self-contained" self, as it were, engages with a "self-contained" other" (Draghi-Lorenz et al. 2001, p. 295). Rather, self and others are "coupled" in ways which lead them to enact each other's bodily states. In this sense, intersubjectivity is constitutively bodily, and this is made possible by the fact that the body is constitutively open.

### *3.3. Empirical evidence from developmental psychology*

Much work in developmental psychology indicates that the body is open in an intersubjectively-sensitive way even from birth. A look at some of these findings will assist in characterizing the open intersubjective body.

Consider the fact that neonates appear to be almost immediately capable of intentionally imitating a range of facial, vocal, and gestural expressions (Meltzoff and Moore 1977, 1983, 1997; Kugiumutzakis 1985, 1999).<sup>4</sup> They can even do so after a delay, and work to improve their imitative abilities with practice (Meltzoff and Moore 1994). Moreover, neonates recognize imitative episodes as instances of meaningful interpersonal interaction. They intentionally imitate gestures and vocalizations to complete the communicative dialectic inaugurated by the bodily gestures and vocalizations of the model they are imitating (Kugiumutzakis 1999). By 15 days, infants seem to take pleasure from the sustained interest—the attentiveness and self-exertion, in other words—required for imitation (Kugiumutzakis *et al* 2006, p.167).

This capacity for genuine (i.e., intentional, as opposed to reflexive) imitation was traditionally thought not to appear until the age of 8-12 months. Indeed, it was assumed that since infants lack folk psychological concepts such as "self", "other", "beliefs", "desires", "communicative intentions", etc., they are incapable of attributing any sort of genuine interpersonal or communicative significance to episodes of imitation. Minimally, being able to attribute false beliefs to another has been taken to be the benchmark of having developed a theory of mind, that

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<sup>4</sup> For a brief review of infant imitation research, see Nadel and Butterworth (1999).

is, the ability to understand another person as a psychological being harboring beliefs and desires relevantly similar to one's own. Without such a theory, mindreading remains unattainable. Therefore, since intentional imitation involves the ability to recognize another's gestures as meaningful intentional imitation is simply too cognitively complex an activity to be undertaken by the developmentally immature neonate. We should note that this presupposition stemmed from a wide-spread and well-established tendency to dramatically underestimate the neonate's native capacity for genuine intersubjective engagement. As Colwyn Trevarthen underlines, it was long assumed "that the mind of the infant is incoherent, with undefined perceptions and incapable of contributing to communication, except to solicit help reflexively for biological functions" (Trevarthen 1992, p.121).

However, there are now strong reasons to doubt this "blooming and buzzing confusion" model of the early infant's world. Despite obvious constraints relative to the developmental immaturity of their perceptual systems, neonates and young infants nevertheless exhibit the intersubjectively-significant forms of bodily poise and responsiveness mentioned earlier. They can and indeed do initiate various preparatory movements intended to bring about other-directed bodily practices which indicate their self-aware, intentional efforts to participate in intersubjective engagements (Trevarthen 1992, pp.133-135). This suggests that even newborns and very young infants are able to intentionally mobilize the sensorimotor resources of the open body to meaningfully engage with others. This "embodied attending" (Downing 2000, p.256) to an intersubjectively significant context precedes the formation of a folk psychology or theory of mind. Rather, it has the form of a skill that is a function of the body's sensorimotor-affective openness.

Bodily imitation is only one example of such skillful and self-aware interpersonal engagement. This early imitation soon takes on a more robust form as the infant becomes more adept at intersubjective exchanges. A premature infant at 30 weeks' gestational age can complement a partner's expression, such as an affectionate vocal greeting, with an emotionally appropriate response (e.g., a smile) (Trevarthen 1992, 145). By two months, if not even earlier, infants can engage in "proto-conversations" (Bateson 1971) consisting of "extended bouts of mutual gaze, turn-taking, cooing, showing lip and tongue movements, waving of arms, turning wrists and extending fingers"; in short, "they seem to experience our conversational acts as communication and must respond expressively" (Reddy and Trevarthen 2004). Around this time they also begin

to exhibit coyness, shyness, and embarrassment; a bit later they become capable of teasing others and showing off to call attention to themselves (Reddy and Trevarthen 2004; Reddy 2008). The upshot of these findings is that, long before they master any theory of mind, neonates and infants are active bodily participants within intersubjective engagements. They exhibit the embodied skills needed for modulating both the responses of their interlocutor (e.g., doing things to encourage or discourage further interaction), as well as their own affective responses to these embodied engagement (e.g., throwing themselves more fully into playful situations, or bashfully withdrawing and becoming shy or embarrassed). This mobilizing of the sensorimotor-affective open body to modulate another's affective states while simultaneously regulating one's own states speaks to the "bi-directional regulation" (Beebe 2003) at the heart of our interpersonal engagements, which are founded on a shared body-to-body coordination. From the start neonates are active and self-aware participants within intersubjective contexts, equipped with "(a) embodied skills for the "sending" of emotion to another person; (b) skills for the "receiving" of emotion from the other; (c) skills for "negotiating" such exchanges; and (d) skills for using shared affective states jointly to disclose aspects of the world" (Downing 2000, p.263). Once again, such skills involve the bodily self as an autonomous being (characterized by its subjective experience) who is, at the same time, relational (characterized by its encounter with others).

#### **4. Intersubjectively autonomous**

The question that opens up here is the following: is this intersubjective opening of the body coincidental or constitutive? First of all, note that our reliance on developmental psychology and on the earliest stages of intersubjective encounter is meant not only to provide empirical arguments supporting our thesis but also to underline both that the body is intersubjectively relevant and that, additionally, intersubjectivity is bodily relevant from birth on. This already indicates that bodily intersubjectivity is not an add-on but that it is, rather, basic and primary. Interestingly, this point is compatible with the idea that the body is intersubjectively open in a constitutive way. This is a strong claim that we will not spell out in full details here. Just to scratch the surface of the issue at stake, let us clarify that we advocate here a conception of the self as multi-layered. In the present context, this implies that at least some of its dimensions are not intersubjectively constituted (for example, one can presumably feel one's body

proprioceptively even if there is no other person involved at all). But the question remains: is the dimension of the self which is factually intersubjective constitutively or contingently intersubjective? More specifically, is the open body interacting with others constitutively or contingently intersubjective? The most we can do here is to dismiss a (classical but flawed) reply which involves dissociating the organic from the intersubjective: these two dimensions of embodiment would belong to two different orders, organized according to different principles (again, a radical form of such a view would be a Cartesian dualism). Accordingly, the organic and intersubjective orders are simply neighbors constituting complementary but quite disconnected dimensions of the body. As should be clear by now, we do not favor such dualistic view, since we intend to remain faithful to a naturalistic (non-reductionist) approach. As explained above, the notion of autonomy is not incompatible with the notion of openness and we believe that it is fruitful to understand both organic and intersubjective bodily openness as relying on *different* implementations of the *same* organizational principle, namely, relational autonomy. To clarify, we do not want to argue that each and every form of selfhood is constituted intersubjectively but rather that selfhood is constituted by its bodily openness, be it at the organic level or at the intersubjective level.

Like the organic system/self constitutes itself (its own inner space) by being structurally coupled with its external world, so does the subject when living in a world populated with others. It is by being related to others that the subject constitutes its mode of being at this level. This formulation, however, may be misleading. We are not saying that self-constitution at the experiential level is a result of prior intersubjective encounters. Conversely, we are not stating either that intersubjective encounters are the result of prior self-centered subjective experiences. What is misleading in these two (opposite) considerations is their way of considering the issue at stake in terms of "result". Doing so necessitates to first of all conceive of subjectivity (or more generally: inner realm) and intersubjectivity (or more generally: outer realm) as two separable or even separate orders, only one of which being "the first" to be constituted and giving the key for the constitution of the second one. Such "unplugging" of subjectivity (or more generally: inner realm) and intersubjectivity (or more generally: outer realm) is precisely what the current framework avoids. Self and world are not first separated to be then integrated to each other. The

"who's first?" question is thus dissolved: not one, not two, self and others penetrate each other co-constitutively through the coupling of their open body.

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