

From *ego* to *alter ego*: Husserl, Merleau-Ponty and a layered approach to intersubjectivity

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Abstract This article presents two different phenomenological paths leading from *ego* to *alter ego*: a Husserlian and a Merleau-Pontian way of thinking. These two phenomenological paths serve to disentangle the conceptual–philosophical underpinning of the mirror neurons system hypothesis, in which both ways of thinking are entwined. A Merleau-Pontian re-reading of the mirror neurons system theory is proposed, in which the characteristics of mirror neurons are effectively used in the explanation of action understanding and imitation. This proposal uncovers the remaining necessary presupposition of a minimalized version of the Husserlian concept of pairing and its recent and improved version in terms of the intermodal system. This leads to a layered approach to the constitution of intersubjectivity.

Keywords Ego · Alter-ego · Mirror neurons · Husserl · Merleau-Ponty

Introduction

The aim of this article is threefold. First, two different phenomenological logics for modelling the constitution of intersubjectivity, represented by Husserl and Merleau-Ponty, are introduced. Merleau-Ponty was not only influenced by the child psychology of his time, but he was also inspired by the Husserlian account of intersubjectivity, in which an ‘intentional transgression’ of the *ego* happens. The two accounts nevertheless profoundly differ in the basic operation leading from *ego* to *alter ego*. A discussion of action understanding and imitation illustrates the difference between those basic options.

Second, the philosophical–conceptual underpinning of the recent mirror neuron theory of intersubjectivity is investigated, mainly by looking again at action understanding and imitation. It turns out that the mirror neuron theory uses

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Husserlian as much as Merleau-Pontian logic, notwithstanding exclusive reference to Merleau-Ponty in the literature on mirror neurons (for a similar analysis focused on speech and based on a Derridean interpretation of Husserl, cf. De Preester 2005). A more consistent re-reading of the mirror neurons system hypothesis in Merleau-Pontian terms is proposed.

Third, this proposal uncovers a necessary presupposition present in the Merleau-Pontian logic for the constitution of intersubjectivity. This presupposition implies a minimal set of requirements concerning the body of the other, and leads us back to a Husserlian kind of ‘pairing’ between two similar bodies, and to its recent and improved version in terms of a ‘intermodal system’. It shows that Merleau-Ponty does not offer an alternative to, but should be understood as a continuation of the Husserlian logic. In the conclusion, a layered approach to the coming about of intersubjectivity is argued for.

A Husserlian way from *ego* to *alter ego*

In this section, two Husserlian instances that exemplify a similar logic in thinking about the constitution of intersubjectivity are presented. A first instance is the Husserlian way from solipsism to intersubjectivity as presented in his *Cartesian Meditations*. In this line of thought, a basic principle is the *Paarung*, resulting in the experience of the body of the other *as* having a psychic layer, i.e. as being ensouled or as being a *Leib*. This pairing enables an analogous appresentation (or co-presentation). In the *Cartesian Meditations*, this analogous appresentation is situated in the visual modality, and presupposes recognition of the visual similarity between the body of the other and the own living and lived body. This presupposition is criticized by Husserl himself in *Ideas II*, where it is stated that the child has not yet the required *visual* access to its own body, such that the analogy between its own body and the body of the other cannot happen on a visual basis. Therefore, Husserl replaces the lacking visual image of the body with another mechanism: the similarity between the sounding of one’s own voice and the heard voice of the other motivates the analogous appresentation. This shift in modality, however, precisely reveals a similar underlying Husserlian logic at work in both cases.

The above way of thinking starts off with Husserl’s finding of the experience of the presence of the other for the consciousness of the *ego*. In accordance with the overall aim of phenomenology, his task consists in giving a phenomenological clarification of how this experience is possible. It is important to note that Husserl nowhere *doubts* that the *ego* has the experience of an *alter ego*, and, consequently, that his task does not consist of *proving* the existence of an *alter ego*. On the contrary, Husserl wants to unravel the different layers of the experience the *ego* has of an *alter ego*. This experience has a particular structure, because the experience of the other is a very specific one. In perception, we have a presentation of the *bodily* appearance of the other. At the same time, we have a co-presentation (or appresentation) of the other’s *psychic* life. Particular to the perceptual experience of another psychic being, is that what is co-present, can never become present. In other words, the appresentation of the psychic life of the other can never lead over in the original sphere, i.e., in the sphere of presence or presentation.

But shouldn't we have a *motive* for appresenting something not present? In other words, *why* do we appresent the psychic sphere of a perceived body? At this point, Husserl refers to a general rule which tells that every appresentation is motivated by a presentation, or, that every co-perception of something not itself present is motivated by the perception of something present. According to this rule, the seen front of an object, the perceptual presentation of it, motivates the appresentation of its backside. In the case of the perception of another living being, it is the presentation of the body of the other that motivates the appresentation of his psychic life.

But why is this so? Why does the presentation of the body of someone else motivate the co-presentation of his psychic life? According to Husserl, the reason is to be found in the special status of the body. It is here that the well-known distinction between mere three-dimensional thing-like body (*Körper*) and living and lived body (*Leib*) becomes important, for the body of the other is not just perceived as a *Körper*, but as a *Leib*.

This immediately leads to the next question. Why do we perceive the body of the other as a *Leib*, and not as a mere *Körper*? In order to answer this question, Husserl introduces the concept of 'apperceptive transfer', or 'analogizing apprehension'. In general, an apperceptive transfer or an analogising apprehension is the transfer of a meaning or sense we already possess to a new case. In the apperceptive transfer that happens from my own body, which I experience as a *Leib*, to the body of the other, the latter precisely receives the sense of *Leib*.

Here again, the question for the motivation of the apperceptive transfer of sense is relevant. According to Husserl, the motivational basis for the apperceptive transfer is to be found in a similarity that connects the body of the other with my body, and it is due to this similarity that the body of the other is perceived as another animate organism. Thus, the mechanism underlying the apperceptive transfer is the *Paarung*, i.e. a kind of passive synthesis in which a unity of similarity – a pair – is constituted. In the case of the perception of the other, my body and the body of the other make up a pair.

This pairing mechanism, however, raises a problem. More precisely, it is the problem of how the similarity between my body and the body of the other can arise. Husserl himself addresses this problem in a footnote in *Ideas II*, where he remarks that the required similarity is difficult to achieve, because the child does not have the required access to its own body in the visual modality. Therefore, he shifts from the visual to the auditory modality. "It seems, from my observation, that in the child the self-produced voice, and then, analogously, the heard voice, serves as the first bridge for the Objectification of the Ego [*Ichobjektivierung*] or for the formation of the 'alter', i.e. before the child already has or can have a sensory analogy between his visual Body and that of the 'other' and, a fortiori, before he can acknowledge to the other a tactual Body and a Body incarnating the will" (Husserl 1952: 101, n.1).

This shift from the visual to the auditory modality helps to show the similarity in the underlying pattern of reasoning in both cases. Both in the visual and in the auditory modality, a similar Husserlian logic is used. First, there is the same point of departure: I experience my body as uniquely singled out, i.e., I experience my own body as *Leib*. Second, in order for the pairing with another body to happen, a certain degree of self-objectification is necessary (visually, or in the case of the voice, auditorily). Then, and only then, the similarity with the other can be established and

the mechanism of the pairing can do its job. The apperceptive transfer, in which the other is constituted as another *Leib*, and thus as having a psyche, is the point of arrival in both cases.

A Merleau-Pontian way from *ego* to *alter ego*

In this section, the above Husserlian logic is compared to the phenomenological logic of Merleau-Ponty. For Husserl, the own body (or one's own harmonious behaviour) is the basis for experiencing and understanding the corporeity or behaviour of the other. If the *ego* witnesses the other in his corporeity or in his bodily behaviour, an *intentional transgression* takes place. In this, Merleau-Ponty is inspired by Husserl. Nevertheless, the Merleau-Pontian intentional transgression differs radically from Husserl's conception, basically because Merleau-Ponty's interpretation of the pairing no longer seems to presuppose the Husserlian analogous appresentation. The mediating term between *ego* and *other ego* is not a bodily similarity. In contrast, *ego* and *alter ego* converge upon a similar *directedness* to the world or upon a similar *intentional object*. The *ego* meets his counterpart in an *alter ego* if both share an object (in the very broad sense). The mediating term between me and other is the external world, the intended object of action to which *ego* and *alter ego* are equally directed.

Merleau-Ponty sometimes uses the remarkable concept of 'synchronizing modulation', which is not an inference I make of someone else's thought, but a change in my *existence* provoked by the other. He gives an example in the domain of speech: "Just as the sense-giving intention which has set in motion the other person's speech is not an explicit thought, but a certain lack which is asking to be made good, so my taking up of his intention is not a process of thinking on my part, but a synchronizing change of my own existence, a transformation of my being." (Merleau-Ponty 1945: 213) It is thanks to this transformation of my being, which resonates the intentions of the other, that I come to *understand* the other. In another passage, Merleau-Ponty expresses a similar point of view, more generally in the domain of gestures. "The communication or comprehension of gestures comes about through the reciprocity of my intentions and the gestures of others, of my gestures and intentions discernible in the conduct of other people. It is as if the other person's intention inhabited my body and mine his. The gesture which I witness outlines an intentional object. This object is genuinely present and fully comprehended when my powers of my body adjust themselves to it and overlap it." (Merleau-Ponty 1945: 215) In this particularly interesting passage, three important remarks are made. First, there is a *reciprocity* between the other and I – a reciprocity of his gestures and my intentions, and vice versa. Second, the stress is not on the gesture in its physical shape, but on the gesture in its outlining an intentional object. Third and final, the point of convergence between the other and I is precisely the gesture's intentional object.

The case of learning new behaviour by way of imitation can help trace further the Merleau-Pontian account of the establishment of intersubjectivity. Merleau-Ponty wonders how the child arrives at making a gesture equivalent to a seen gesture. It is, so he says, no analysing activity. In other words, it is not the case that the child goes

from the cause of the seen gesture to the reproduction of the conditions of that gesture. Imitation does not happen like that. How, then, is the relation between self and other established, if it is not via a representation of the movements of the other by which I can understand and imitate the other? What is the mediating term in the analogy between self and other? Or, what is the intermediary between the perception of ourselves and the visual perception of the other? At least, we know what is lacking in the analogy. First, initially, I have no visual perception of myself. Initially, I cannot objectify myself on the basis of a visual access I do not have. Second, the kinaesthetic experience the other has, cannot be experienced by me.

In order to solve the problem of imitation, Merleau-Ponty takes inspiration from Guillaume. According to Guillaume, firstly, the child imitates the *result* of a seen action, and not the movements as such. Secondly, the child does so on the basis of its *own* means. Thirdly, it *then* discovers that it produces the same movements as its model. In this account, the objects of action, toward which both I and other are directed, are the mediating terms between *ego* and *alter ego*. Correlatively, to imitate is not to do the same as the other, but to arrive at the same result.

Such a point of view has a number of consequences for considering the body. It is not the case, as for Husserl, that the own body is experienced as a mass of sensations, doubled with a kinaesthetic image. Rather, the body is primarily experienced as a systematic means to go toward objects. This is the reason why (1) imitation is a matter of common goals, (2) the other is seen as a behaviour, and (3) the I is primarily a motor I.

In the perception of the other, the abilities of my own body are evoked. As I am given to myself as a certain grip on the world, in the other we see a familiar way of intercourse with the world. Different formulations for what happens according to Guillaume and Merleau-Ponty are possible.

- (1) The perception of the behaviour of the other makes me conceive of the other as a subject too.
- (2) My own body is the means to understand the behaviour of the other.
- (3) I grasp the goal-directed aspect of the behaviour of the other, because my body is capable of the same goals.

The above formulations slowly shift from a more Husserlian to a rather Merleau-Pontian phrasing. From the perspective of the first formulation, it is no surprise that Merleau-Ponty adds his own version of the apperceptive transfer. Merleau-Ponty speaks of it in terms of the intentional transgression that happens when meeting the other.

What, however, is the eventual difference between Husserl and Merleau-Ponty? For Husserl, the mediating term between *ego* and *alter ego* is the living body. The living body is the central, connecting element in the analogy between me and other. On the basis of bodily similarity, identification with the other is established, and the *ego* is able to understand and imitate the other. In this Husserlian account, identification is *presupposed* for understanding the other. For Merleau-Ponty, in contrast, identification with the other is no longer presupposed in order to explain understanding the other. The central, mediating term between *ego* and *alter ego* is not the living body as such, but a common intentional object in the world, toward which behaviour is directed. It is due to having the same intentional object that I

come to understand or imitate the other, because I try to arrive at the same result. From this perspective, identification is a possible *result from* having a common intentional object and similar means to aim for it.

The main difference between the two logics is thus instantiated in the case of imitation. In a Husserlian scenario, the bodily movements of the other are imitated. This presupposes that the imitator can identify with the body of the imitated. In a Merleau-Pontian scenario, to imitate is not to do the same as the other, but to arrive at the same *result*. Imitation is a matter of *common goals*. The child first imitates the result of the action by its own means, and finds out that it is making the same movements as the other.

Shared neural representations: The underlying logic

In the recent literature (e.g. Gallese 1999, 2001; Rizzolatti and Arbib 1998; Rizzolatti et al. 1999, 2001) on the discovery of mirror neurons and the hypotheses about their functions (cf. action understanding, imitation, intersubjectivity, and the evolution of language), a reference to Merleau-Ponty can occasionally be found. Closer examination confirms that the *characteristics* of mirror neurons do fit a Merleau-Pontian logic, and open up a perspective on intersubjectivity that is Merleau-Pontian in spirit. The *use*, however, of these characteristics in the *explanation* of action understanding, imitation and the constitution of intersubjectivity does not follow a Merleau-Pontian but rather a Husserlian logic. In other words, to make the philosophical–conceptual background consistent, a number of particular characteristics of mirror neurons should effectively be used in the *explanation* of action understanding and imitation. More concretely, the emphasis on the commonality of the being-directed-to or of the intentional object – if present on the level of the characteristics of mirror neurons – should also be present on the explanatory level.

Let us proceed stepwise. A footnote accompanying the following quotation refers to Merleau-Ponty's (1945) *Phenomenology of Perception*. "(...) an action is understood when its observation causes the motor system of the observer to 'resonate'. (...) In other words, we understand an action because the motor representation of that action is activated in our brain. (...) the idea that we understand the other through an 'internal act' that recaptures the sense of their acting was defended by several philosophers, especially by phenomenologists." (Rizzolatti et al. 2001: 661)"

The mirror neurons system explains how the process of understanding an action performed by another registers in the brain. There is a common neural substrate for both action observation and execution. This substrate is discovered first in monkeys, but there are indications for the existence of such a neural substrate in humans as well. This system is responsible for the mapping of a visually perceived action onto its motor representation in the brain of the observer (in addition, there is also evidence for auditory mirroring). The hypothesis is that one's mirror mechanism enables individuals to recognize actions made by others, because the neural pattern elicited in their premotor areas during action observation is similar to the one internally generated to *produce* that action (hence the name 'mirror neurons'). In

brief, the role of the mirror neurons system is to match an external, unknown event to an internal, known event.

The *characteristics* or mirror neurons are twofold. First, discharge of mirror neurons correlates with an *action*, rather than with the individual moments that form it (Rizzolatti and Arbib 1998). As such, movement is coded in abstract terms, i.e., in terms of the relationship between the agent and the *object of action* (and not in terms of its physical shape). Moreover, and intimately connected to that, mirror neurons only become active if a particular type of action is executed to achieve a particular type of *goal*. Second, and related to the first point, the observed gesture must have a *goal*, and in order to activate a mirror neuron, this goal must be achieved by means of hand-object interaction.

The main functions attributed to the mirror neurons system are action understanding and imitation. Action understanding is “the capacity of individuals to recognize biological motion and to discriminate the observed actions one from the other” (Fadiga and Gallese 1997: 273). Importantly, and as just mentioned, “What makes of a movement a motor act is the presence of a goal.” (Gallese 1999: 167). Moreover, the mirror neurons system acts as a ‘resonant’ system. Having in mind Merleau-Ponty’s synchronizing modulation, the question of this section is whether or not this resonance is of a Merleau-Pontian nature.

Mirror neurons do indeed share their characteristics with a Merleau-Pontian style of reasoning. First, both in mirror neuron theory and in Merleau-Pontian phenomenology, a kind of reciprocity or resonance is prominent (cf. Merleau-Ponty’s ‘synchronizing modulation’ and the ‘resonating’ mirror neuron system). Second, both emphasize the action instead of the gesture in its physical shape. Third, both emphasize the goal or the intentional object of the action, or even define a gesture in terms of the presence of a goal.

The actual explanation of action understanding, however, is far more Husserlian than Merleau-Pontian. According to mirror neuron theorists, we understand actions when the visual representation of the observed action is mapped onto our motor representation of that action. This can easily be reformulated in Husserlian terminology: the visual perception of the body of the other is mapped onto our own kinaesthetic representation, or the *Körper* is mapped onto the *Leib* (and receives the latter’s status). Thanks to this identification, an understanding of the other arises.

Let us now turn back to Merleau-Ponty, and to the explicitly Merleau-Pontian characteristics of mirror neurons. For Merleau-Ponty, the common goal or the intentional object is primary. In the mirror neuron theory, a mirror neuron is a neuron that codes over an action, and an action is essentially characterized by a *goal*. Yet, in the explanation of action understanding, the identification between observer and observed (the mapping of a visual image onto a motor schema) prevails; the notion of goal moves into the background and even disappears.

The way the theory of the mirror system approaches the issue of imitation may clarify the issue. According to this theory, new behaviour is composed from an available repertoire of motor schemas, and the mirror system would provide the basis to recognize and segment an observed action into its components. In this, the notion of ‘sensory representation’ is important. A sensory representation is an internal sensory copy of an action, which anticipates the consequences of that action. Such a

sensory representation is connected with the representation of the visually observed movements that have to be imitated. In the case of imitation, we thus also meet a Husserlian logic, in which the seen movements first have to be identified with something familiar, i.e. something belonging to one's own motor repertoire, in order to be then executed. The notion of goal does not figure in this type of explanation. Accordingly, the preceding explanatory procedure describes exactly what Merleau-Ponty questions: is it the case, in imitation, that something visual has to be transformed into something motor?

Concluding this section, it can be said that the *characterization* of mirror neurons is indeed Merleau-Pontian in nature. However, the logic of mirror neuron theory used for the *explanation* of action understanding and imitation resembles more a Husserlian than a Merleau-Pontian logic. I will argue that this is not so much a conceptual–philosophical oddity, but that both the Merleau-Pontian and the Husserlian logics are necessary and complementary.

The initial presupposition: A minimal *Paarung*

The emphasis on the commonality of the *being-directed-to* or the intentional *object* does not imply that there are no *minimal* requirements concerning the *body* of the other. For the other to be recognizable *as* being directed to or *as* having an intentional object, there is a minimal set of requirements. If the mirror neuron theory is re-read according to a Merleau-Pontian logic, some bodily requirements do remain. This becomes apparent in the following: “(…) actions made using tools, even when very similar to those using hand, do not activate or activate very weakly the neurons.” (Rizzolatti et al. 1999: 98). A possible solution for the non- or only weakly activated mirror neurons in this case may be the absence or insufficient pairing between the own body and the observed ‘body’ (in this case an instrument) of the other. In other words, there still remains a particular pairing that is a *condition for* – and no *explanation of!* – the intersubjective phenomena of action understanding and imitation. This pairing must be Husserlian in nature, as it concerns what is required for recognizing a body as another ‘ensouled’ body or *Leib*. Moreover, as a certain pairing thus remains presupposed, Merleau-Ponty’s account is in fact no *alternative* to Husserl’s account, but requires a *minimal* version of pairing based on the own body.

The hypothesis of the existence of an ‘intermodal system’ (cf. Gallagher and Cole 1995; Gallagher and Meltzoff 1996; a term preferred over the term ‘supramodal’ system, used by Meltzoff) is presented as a recent account of the Husserlian pairing. We consider it, however, in a minimalized version, because it is doubtful whether this system can explain *meaningful* imitation. Some mirror neuron theorists express their doubts whether the kind of imitation explained by the intermodal system really involves action understanding. “Response facilitation without an understanding of the meaning of an action is also seen in humans. A famous example, first described by Meltzoff and Moore, is the capacity of newborn infants to imitate buccal and manual gestures. Although the response is certainly important for the infant, because it creates a link between the observing infant and the performing adult, there is not much to understand in the observed buccal or hand action.” (Rizzolatti et al. 2001:

668). Moreover, if the mirror neurons system hypothesis and the intermodal system hypothesis were to explain the same kind of imitation, this may render one or both redundant.

Let us run through the reasoning. It is claimed (cf. *supra*) that it is both possible and appropriate to reconsider the mirror neurons system hypothesis regarding action understanding and imitation in Merleau-Pontian terms. Such reconsideration would render the explanatory task more coherent and more consistent with the characteristics of mirror neurons. This can be done by effectively using the characteristics of mirror neurons concerning actions and goals in the explanation of action understanding and imitation. There seems to remain, however, the minimal presupposition of a similarity between one's own body and the body of the other.

The hypothesis of the intermodal system precisely provides a mechanism that solves this problem. Originally, the intermodal system hypothesis proposes the following: "Infants already apprehend, with quickly-improving precision, the equivalencies between the visible body transformations of others and their own invisible body transformations which they experience proprioceptively. The concept of a supramodal code means that the visual and motor systems speak the same 'language' right from birth." (Gallagher and Meltzoff 1996: 225). As such, the intermodal system hypothesis provides a mechanism for an improved version of Husserl's pairing (cf. the problem of the discrepancy between the experience of one's own body and the perception of the body of the other). The authors are of course well aware of the problematic aspects of Husserl's theory: "Husserl's theory might be recast in the following way. The analogy would really have to be made from my own body, operating as a co-ordinated system (of body schema and proprioceptive experience), to the visual image of the other's body." (Gallagher and Meltzoff 1996: 226). That visual and motor systems speak the same language prevents making the presupposition Husserl had to make: the need for a preceding objectification of one's own body in order to arrive at the required similarity.

In this way, the intermodal system hypothesis and the mirror system hypothesis might be seen as complementary, as the intermodal system hypothesis can provide the mechanism for a minimal pairing. The mirror neuron system hypothesis needs this minimal presupposition, but does not offer an explanation for it. In phenomenological terms, it may be said that Merleau-Ponty's recasting of Husserl's *apperceptive transfer* does not replace the latter, but presupposes it – in a minimal version – on a lower level.

Conclusion: Two levels intentional of transgression and intersubjectivity

The result of the above discussion points to a layered approach to the constitution of intersubjectivity. In fact, Husserl's fifth *Cartesian Meditation* (1960 [1950]) already shows that the phenomenon of intersubjectivity requires a layered approach. The focus of this article was, however, on the initial stage in which the *ego* constitutes an *alter ego*, or more precisely, in which another human being is recognized *as* other. In the discussion, two logical paths by which the other comes into view have been explored. We started off with the Husserlian logic in which the constitution of the other is peeled off and is ultimately based upon an original pairing of two bodies.

Next, the Merleau-Pontian logic was presented, in which the external world, instantiated by an intentional object that can be shared from the start, is the mediation between two agents. The discussion of action understanding and imitation assisted in disentangling the role of the two logics in respect to the characterization and the explanatory strategy of the mirror neuron hypothesis. Moreover, the proposal for consistently re-reading this hypothesis according to the Merleau-Pontian characteristics of mirror neurons enabled us to differentiate two levels of intersubjectivity. A Merleau-Pontian interpretation of the mirror neuron hypothesis still presupposes, on a lower level, a Husserlian kind of pairing. On this lower level, a minimal set of requirements concerning the body of the other is necessary in order to recognize that the other has a similar body. This is a condition for perceiving the other as having a goal or as having an intentional object, at a higher level. The intermodal system hypothesis may well serve this function. In this, the doubt whether it can explain meaningful imitation is taken into account, and this involves an improvement of the Husserlian pairing mechanism.

The explanation of action understanding and imitation according to a Merleau-Pontian logic is in fact an explanation of intersubjectively shared intentionality. It is a second-level intentional transgression that presupposes a first-level intentional transgression: the capacity to recognize the other as a bodily being similar to me, and thus as having similar means to go to the world.

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