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Theory of Mind, Phenomenology, and the Double Empathy Problem

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Abstract

According to some neurocognitive studies, autistic people do not have a theory of mind (ToM); this means that they are unable to interpret the thoughts, beliefs and intentions of others just by observing their behaviour and/or listening to what they say and how they say it. By contrast, researchers from phenomenology claim that autistic people experience issues in earlier forms of intersubjectivity and that in some cases a ToM may be used to compensate for issues in empathy. My purpose is to present both the ToM account, along with its internal accounts (theory-theory, simulation theory, theory of mind mechanism), and an overview of phenomenology, followed by the presentation of some of the phenomenological counterarguments to ToM. Finally, I argue that both the neurocognitive approach and the phenomenological view seem to assume that issues reside in autistic people only and do not take into account the communication gap between autistic people and non-autistic people. As recent studies claim, autistic people are able to understand other autistic people, while they experience difficulties in communication when involved in intersubjective relations with non-autistic people. This mismatch between the two groups has been labelled the double empathy problem, and I propose that ToM and phenomenology may offer their support to this new perspective.

Key Words: theory of mind, phenomenology, double empathy problem, intersubjectivity, autism

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Introduction

If usually psychology and psychiatry base the notion of intersubjectivity on the mentalistic approach (i.e., the other is extraneous and inaccessible, so it is only through the exterior bodily behaviour that her hidden mental states, thoughts, or feelings can be inferred), phenomenology considers intersubjectivity as a pre-reflective and embodied engagement of the self with the other (Fuchs, 2015, p.192). This phenomenological description of intersubjectivity makes a huge difference in the exploration of interpersonal relations in autism. Whereas authors like Baron-Cohen et al. (1985) claim that

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autistic people have an impaired theory of mind (ToM), that is the ability to read the mind of others, by contrast, according to phenomenologists or researchers familiar with phenomenology, autistic people would rather be characterised by a difficulty in the primary forms of intersubjectivity. However, both researchers from neurocognitive sciences and phenomenologists consider issues in intersubjective relations as depending on an "inability" that autistic people have to engage with others. Therefore, they do not take into consideration the possibility of a communication gap between autistic people and non-autistic people experienced by both parties, while the double empathy problem instead argues that there is a mutual misunderstanding.

In what follows, I first provide a brief overview of autism and of ToM along with its internal accounts. Secondly, I present phenomenology and discuss why intersubjectivity in the phenomenological account is closely related to the phenomenon of perception rather than of cognition. I then illustrate some of the phenomenological counterarguments to ToM. Finally, I introduce the double empathy problem. I conclude this investigation by suggesting that ToM and the phenomenological approach may motivate studies to support reflections on and analyses of the double empathy problem.

Autism and theories of mind

Autism is a neurodevelopmental condition due to a difference in the development and/or growth of the brain (Casanova and Casanova, 2018, p.27). Autistic people are usually characterised as subjects having a "deficit" in intersubjective relations. According to a number of researchers, a possible cause for the issue that autistic people have in social interaction is a lack of ToM. How we understand what others are thinking, feeling, believing, etc., can be characterised according to different views, but in general, a ToM characterises the theoretical structure of the inferences we unconsciously undertake to understand and predict behaviour and mental states belonging to ourselves and others. The reason this inferential action is required lies in the unobservable character not only of mental states, but also of emotional processes, beliefs, desires, and intentions, since they are hidden within us. This "mindreading" style therefore denies a direct view of others' mental states, since an inferential mediation is necessary. However, this inference can take place in different ways.

Simulation theory (ST) is an account developed within the ToM and describes mindreading as a consequence of the simulation of one's own behaviour. Therefore, "[…] mindreaders use their own minds to 'mirror' or 'mimic' the minds of others" (Goldman, 2006, p.20). Since the "ST hypothesizes that a significant portion of mind-reading episodes involves the process of mimicking (or trying to mimic) the mental activity of the target agent" (Gallese and Goldman, 1998, p.

497), the theory finds valid support in the functioning of mirror neurons. It has been observed that mirror neurons are indeed activated in both cases where the subject is involved in a first-hand action and when the action is observed instead in another subject (Gallese *et al.,* 1996).

Alison Gopnik and Henry M. Wellman defend the theory-theory (TT), which is another version of ToM. This version is called TT because they characterise mindreading as organised as a scientific theory that is not the same as conceptual schemas (Gopnik and Wellman, 1992, pp.146-149). Their specific purpose is to sustain the thesis that children develop over the years a set of theories to understand others. These theories seem to be similar to those used by scientists and change over the years through gradual transition as scientific theories do as well.

A modular version of the TT has also been developed. A modular characterisation of the TT means that the ToM is a task of a specific module of the brain. Therefore, ToM is only possible because of an innate specialised task of the brain called the theory of mind mechanism (ToMM). This innate task, however, becomes functional with the development of the child; this claim means that initially this task starts not as a theory but as a mechanism (Leslie *et al.,* 2004); therefore, "ToMM forms the specific innate basis for our capacity to acquire a theory of mind" (Leslie, 1994, p. 214). Alan Leslie (1994) proposes that this mechanism underlies social skills and is impaired in autistic children. As a result, they do not develop a ToM.

It is worth providing a brief description of Leslie's (1987) model of metarepresentational development. Metarepresentations are second-order representations: while primary representations refer directly to the referent, metarepresentations are representations of representations. Indeed, what is required to metarepresent is the ability to decouple:

> Metarepresentational context decouples the primary expression from its normal input-output relations. Meanwhile the original primary representation, a copy of which was raised to a second order, continues with its definite and literal reference, truth, and existence relations. (Leslie, 1987, p.417)

Metarepresentations make it possible for children to pretend and to understand the pretending of others. For Leslie, autistic children have impaired metarepresentational ability; therefore, they lack the ability to pretend and a ToM. This claim would explain why autistic people have a lack of, or at least difficulty with, the ability to infer the thoughts, emotions, and intentions of others.

In order to explain specific impairments in autistic children, Baron-Cohen et al. (1985, p.38) suggest that Leslie's model substantiates their position, and they propose the "Sally–Anne Task". In the test there are two dolls, Sally and Anne. Sally puts a marble in

her own basket and leaves the room; while she is away, Anne takes the marble and puts it in her box. When Sally comes back, she wants to play with the marble. Typical children, autistic children, and Down's syndrome children were involved in the observation of this play, and they were asked to answer the following question: where will Sally look for her marble? As a result, 23 out of 27 typical children and 12 out of 14 Down's syndrome children passed the belief test, while only 4 out of 20 autistic children passed it. Therefore, 16 autistic children answered that Sally was going to have a look at her basket: they did not recognise that, since Sally was not in the room, it was not possible for her to have their same knowledge. Therefore, according to Baron-Cohen et al. (1985), this proves that autistic children did not develop a ToM.

A lack of ToM in autism has also been proposed by Baron-Cohen et al. (2000) in stating that there is an abnormality in the autistic amygdala, which is correlated with a diminished ability for social interaction, intersubjective capacity, and empathy. Since "there are several important lines of evidence implicating the amygdala in primate social behaviour" (Baron-Cohen *et al.,* 2000, p.357), the cause of the inability to/difficulty in attributing mental states to others in autism is the lack of activation of the amygdala. Indeed, "the fMRI[2] study provides strong evidence of the role of the amygdala in normal social intelligence, and abnormality of the amygdala in autism" (Baron-Cohen *et al.,* 2000, p.360). Specifically, it has been observed that when autistic people were asked to infer mental states of other people from their eye expression in experimental contexts, the activation of the amygdala was missed.

However, despite the evidence from the amygdala theory and false-belief tests, one central difficulty with the ToM is its reduction of "empathy" to the cognitive dimension and thus the exclusion of emotional empathy. To overcome this issue, in 2009 the ToM was revised by Baron-Cohen himself with the empathising–systemising theory (EST) in order to include the affective aspect of empathy. Here autism was investigated in the light of what he called "empathy", along with another factor, the ability to "systemise": "Systemizing is the drive to analyze or construct systems. These might be any kind of system", and the main characteristic of the act of systemising is to note rules and regularities that allow one to predict the system's behaviour in the future (Baron-Cohen, 2009, p.71). In this theory, autistic individuals are argued to have an aptitude for systemising, while being below average in empathy, since these psychological factors would be independent; therefore, the ability to systematise would inhibit empathy. Let us now move to phenomenology and its counterarguments to the assumption that autistic people lack a ToM.

[2] fMRI stands for functional magnetic resonance imaging.

An overview of phenomenology

Over the past years, psychologists and psychiatrists became familiar with the phenomenological approach and started using it to conduct their own scientific investigations. As a result, there are a number of studies where phenomenology is used not only by phenomenologists but also by researchers from psychology and psychiatry. However, before presenting the phenomenological view on intersubjectivity in autism, I will first introduce some key concepts of the phenomenological tradition.

In his "Husserlian phenomenology", Steven Crowell (2009) makes clear what phenomenology does and the difference with other methods. Phenomenology provides a description of phenomena, as its purpose is not to explain the reasons why things exist, but to clarify what we need to focus on by marking the distinction between the phenomena. Accordingly, phenomenology is not a factual investigation since it does not aim to describe all the features of a specific thing; rather, it is an eidetic[3] inquiry with the purpose of disclosing what belongs to a thing as a thing of that kind. Phenomenology is thus a reflective inquiry; it is not directly interested in understanding material entities, reasons, or causes, as the natural sciences are, but in how we experience them (Crowell, 2009, p.10).

Therefore, where a phenomenological account is used, the purpose is not the analysis of the thing as it is with its material properties or the investigation of the mechanisms that make this thing possible to exist. A phenomenological approach aims by contrast to focus on the modality by which things appear to us or, to put it differently, how things are revealed to our consciousness. To sum up, phenomenology is a reflective description of how things appear in lived subjective experience. What phenomenology thus requires is a shift from the investigation of what things are to what makes us able to have an experience of the given experimental objects and how.

This shift cannot take place within what Husserl calls "natural attitude" that is the standpoint we have towards the world and things in our daily life experience. No question is raised about the presence of the world and things since they are out there and come to us as independent entities. Certainly, everyone accepts the presence of a tree in the park, or of the park itself, or of everything else. Is there anyone reflecting on the objective validity of the presence of a tree? This standpoint is fine for our daily needs, because it makes us familiar with the world and does not raise questions about everything, going through life, and meeting its practical commitments.

The tendency of accepting things as they are given without further investigation of how we experience them is typical of science

[3] By "eidetic" Husserl means what concerns essences.

as well. The purpose of science is to understand the mechanism of how things work by taking for granted that they are present and exist independently. In other words, within a scientific account there is the tendency to accept what is given in the world and to focus on gathering knowledge about that. Since the investigation of the material structure of things, along with its cause, relation, effect, etc., is the purpose of science, the attitude of accepting things as already present out there independently for us is necessary and functional.

Let us take the example of an apple. An apple is a thing we are extremely familiar with in our everyday life experience. From an "everyday" attitude, an apple is what exists independently from us, and we use it to satisfy our hunger. We do not need to doubt about the apple or its existence or to investigate how it appears to us. If we were a scientist instead, we would be interested not in the apple as a fruit to eat, but in the apple as belonging to the category of fruit with particular characteristics, such as its specific chemical structure.

What phenomenology does is push us towards a return to the things themselves (Husserl, 1970, p.168) by abandoning the natural attitude. In order to return to things themselves, what one should do is not take them for granted or, put differently, not accept them as merely existing, but describe and clarify how they appear to us by questioning how they are given before any kind of conceptualisation: "The phenomenological dictum 'to the things themselves' can be seen as a call for a return to the perceptual world that is prior to and a precondition for any scientific conceptualization and articulation" (Gallagher and Zahavi, 2021, p.119).

In order to obtain this pre-theoretical "view" of things, one needs to suspend the natural attitude to enter into the phenomenological — also called philosophical — attitude. What Husserl proposes in his phenomenological framework is to see the world differently, from a more critical perspective, where the natural attitude is not completely disregarded, but just set aside to make room for a further approach to reality. This further approach taking place within the phenomenological attitude is made feasible only under the conditions of Cartesian doubt. Doubt is in fact fundamental in order to make possible a view of reality that is different from the natural attitude.

So, what if we approach an apple with a phenomenological view? We would start reflecting on the apple and on how it is possible for us to experience it. Therefore, everything that we usually take for granted is put in brackets. What I want to "know" is how the apple appears to me or what makes it possible for the apple to appear to my consciousness. Consequently, phenomenology is concerned not only with the entity but also with the structure of consciousness, because "how" things appear requires an exploration of the correlation between the structure of consciousness and the structure of the thing.

What we can notice is that the thing (e.g., the apple) is the same in all three contexts, but what changes is the attitude that one has. In the first case, we are focused on the apple as something that is going to be eaten. In the second case, we are interested in its material characteristics. In the final case, what we want to investigate is how the apple appears to us (i.e., me as consciousness), and in order to do this we need to doubt about that.

The doubt is a practice encouraging us to operate "epoché", the suspension of the natural attitude not of the world and its things:

> *We put out of action the general thesis which belongs to the essence of the natural standpoint*, we place in brackets whatever it includes respecting the nature of Being: *this entire natural world therefore* which is continually "there for us", "present to our hand", and will ever remain there, is a "fact-world" of which we continue to be conscious, even though it pleases us to put it in brackets. (Husserl, 2017, p.110)

Again, by practicing epoché, we are not excluding reality; rather, we suspend what we usually take for granted as being there. Only through this new awareness can consciousness and the world be described as two interrelated aspects, and it is from this very correlation that experience is made possible.

This interrelation, thus, is not to be taken as a relation between two elements encountering each other just accidentally. We need to set aside a dichotomic description of consciousness and world and focus instead on their reciprocity. Husserl indeed characterises consciousness not as closed in itself but as always directed towards something. This directionality is called intentionality. Here "intentional" must not be confused with the usual form of intentional, namely when one wants to do something, achieve a purpose, undertake an action, and so on. Intentionality is the aboutness characterising consciousness, its nature of being beyond itself: "If a being is consciousness, he must be nothing but a network of intentions" (Merleau-Ponty, 2005, p.140).

Perception and intersubjectivity

I have presented above the key concepts of the phenomenological tradition. Since perception and intersubjectivity are closely related in phenomenology, in what follows I describe perception from a phenomenological view. Then I will present the notion of intersubjectivity.

First of all, even though we usually take for granted what perception is, I would like to give a brief definition of what perceiving means before delving into its phenomenological description. Perception is the process making us able to engage with things through our senses. Therefore, we hear, see, and feel things because

of perception. I am aware that this is an extremely elementary definition of perception, but here, at the moment, it is sufficient to keep that in mind in order to better understand the following passages. Another aspect to take into consideration is that we will focus on the perception of external things (i.e., how we see, hear, and feel objects), and everything is outside our mind, since it is what we are more interested in.

For phenomenologists, perception is the basic form of intuition, which first makes us engage with the world, whereby all other acts are made possible: "[…] *sensory perception*, which in a certain proper sense plays among experiencing acts the part of an original experience, whence all other experiencing acts draw a chief part of their power to serve as a ground" (Husserl, 2017, p.127).

As Merleau-Ponty (2005)[4] also claims in clarifying the "grounding" role that perception has in respect to the other acts, "Perception is not a science of the world, it is not even an act, a deliberate taking up of a position; it is the background from which all acts stand out, and is presupposed by them" (p.XI).

Therefore, the first aspect of perception that can be recognised is that of a primary form of intuition, as it is the basic mode by which all the others come (representation, cognition, judgment, imagination, etc.). This is not the only aspect belonging to perception. According to phenomenologists, perception is not mediated by any passage, image, sign, etc.; therefore, immediacy for them is what characterises perception: the external object is straightway taken as it is given. This characterisation of non-mediated directness toward something makes phenomenological interpretation of perception nonrepresentational (Gallagher and Zahavi, 2021, p.121). In other words, we do not need to connect things to an internal image in order to "see" what we perceive. Moreover, what we perceive is present to us not only in a non-mediated manner but also in its entirety, even though sense perception is given in a way that we cannot fully grasp the object. Perception indeed does provide me the full object I am perceiving, but actually the object is never given in its entirety in the perceiving act. If I see an apple, that is an external object with specific features. I see the front of the apple and perceive its texture, colour, shape, etc. I may claim that I am seeing or touching a red apple because what I am perceiving is an apple, not part of an apple. However, although my perception provides me with a full red apple, actually I am perceiving just one side, one aspect of the apple.

Therefore, what perception does is to present the material thing not only as immediately given, as present itself, but also in its entirety, even though we cannot perceive all the object's aspects at once. In

[4] For Merleau-Ponty, the phenomenon of perception presents itself as a whole emerging against a background. What is perceived comes not as an aggregation of parts, but as a whole; therefore, the perceived object comes to us as already meaningful.

other words, when we perceive something, we tend to do it always from a perspective, given in a specific location and time, but we take the object in its wholeness. What we need in order to see the other profiles is to perceive the thing multiple times: "No thing-perception is terminal and conclusive; space always remains for new perceptions which would determine the indeterminacies more closely and fill in the perceptual gaps" (Husserl, 2017, p.414).

As Husserl claims in the passage above, new perceptions are required to make the experience of a thing fuller, not other kinds of processes. Therefore, we need to avoid the mistake that these sides are later "seen" through some cognitive process, because for Husserl, the other aspects are not inferred; rather, they are co-intended when we perceive "[…] these absent sides are not inferred or reached by some cognitive calculation; rather, they are immediately and even sensibly grasped, although in a reduced, even 'empty' mode. The front side carries a sense of the whole object that includes 'indications' of these other sides" (Moran, 2005, p.161).

I see the apple's front but not the back. Its back is obscured to me, but the front indicates to me that the back has the same shape, colour, and texture. I can then perceive the back of the apple, and so this new perception will fill the gap I had.

Therefore, another factor can be added to the definition of perception: it is the basic form of intuition since it anticipates all other acts. The perceived object is seen immediately and unmediated, and even though perception seems to provide a full "picture" of the perceived thing, sense perception does not fully grasp all the details that are faced at a given location and time.

Before moving on, let us analyse the two terms involved in perception and see in more detail the perceiving consciousness and the perceived thing: there is an intentional object given through the mode of perception and, on the other side, the act of perception belonging to a consciousness that is structured to perceive. Indeed, consciousness and world, subject and object, in the phenomenological perspective, are two interrelated entities in the experience belonging to each other (see Husserl, 1999, §41). Therefore, on the one hand, there is a consciousness with intentional structure (i.e., directed towards something through the mode of perception, but it could be the mode of representation, cognition, or imagination), while, on the other hand, we have the correlated intentional object, intentional since it is what the consciousness is directed to (perceived, represented, imagined object, etc.). Experience is thus the result of this correlation. Perception is the basic form of intentionality since it is one of the different kinds of correlation that Husserl claims is between the intentional object and the intending act.

Recalling the "apple" example: my consciousness perceives an apple through the senses. The apple is given immediately, and as a

consequence, I do not need to represent the apple I am seeing in order to obtain an image of the apple. All other kinds of acts come after perception, so a represented apple requires a further process with respect to perception. The reason I perceive the apple is that my consciousness is naturally structured to perceive it. On the other hand, the apple presents the intentional structure since it is what consciousness is directed towards.

To summarise so far, perception is the basic form of intuition because it precedes all other acts and is not mediated by any image or representation. The perceived object is thus immediately given to the perceiving consciousness. Perception provides me with a full object, even though I need further perceptions in order to grasp more details. Finally, both consciousness and object have an intentional structure, which in this case is perception.

However, I am not consciousness only. To better characterise human beings, the following line is the accurate definition: I, a human being, am embodied and embedded consciousness, since I am also my body. Merleau-Ponty emphasises the role of body in our being-in-the-world, as the point from which we perceive things. Indeed, "Phenomenological analysis shows that the constitution of the perceptual world entails more than vision conceived as a mental act; it requires an *embodied* subject" (Crowell, 2009, p.25).

The body is given to us in the pre-reflective experience, so it precedes all other experiences, and it is not an object among the many; rather, it is what makes the appearance of any object to me possible.[5] My body is an absolute permanence against the relative permanence of the object (the object can be present or absent, while the body is always present to me), and I have a non-mediated relation with it. It is not only my body that is not an object among the many. Neither are the other bodies given to me (to my perceiving consciousness) as an object but as other perspectives to the world that also are, as Merleau-Ponty[6] would say, in the world as embodied and embedded consciousness.

Corporeality is a relevant point in intersubjective relations because the first approach with the other takes place among bodies (consciousnesses) and through empathy that allows us to engage with the other and its experience: "In my physical surrounding world I encounter Bodies, i.e., material things of the same type as the material

[5] The body not only makes the object possible to be perceived from a specific perspective, but also bodily space makes possible an external space: the former does not extend its parts but rather enfolds them, since "it is the darkness needed in the theatre to show up the performance, the background of somnolence or reserve of vague power against which the gesture and its aim stand out, the zone of not being in front of which precise beings, figures and points can come to light" (Merleau-Ponty, 2005, p. 115).

[6] For Merleau-Ponty, intersubjectivity is a constitutive factor of the existence, and the others are always on my horizon by contributing to the definition of what I am. What is more, in myself I find the anticipation of the other. Intersubjectivity thus is not just an accidental part of my perceptual experience but a necessary factor of my experience.

thing constituted in solipsistic experience, 'my Body', and I apprehend them as Bodies, that is, I feel by empathy that in them there is an Ego-subject, along with everything that pertains to it and with the particular content demanded from case to case" (Husserl, 2000, p.172).

As a consequence, in opposition to the ToM, for phenomenologists, "Our interaction is based on environmental and contextual factors, rather than mentalistic or conceptual, explanatory or predictive attitudes" (Gallagher, 2004, p.202). Therefore, the encounter with the other does not happen at a conceptual level where I infer foreign mental states; rather, the first encounter happens through empathy and at a perceptual level.

Whereas both TT and ST "take it for granted that understanding another person is an indirect mental process which needs to appeal to theory or simulation […] From the phenomenological perspective, it is important to note that we are able to directly experience others through our perception" (Tanaka, 2015, p.459). Here inference, simulation, and theories are not required, because the other is not someone with hidden mental states; its lived body is directly given to me as I am a lived body directly given to her: "Perceiving the other's action does not mean observing it in a detached way but tracing it through the body in a pre-reflective way" (Tanaka, 2015, p.461).

In Merleau-Ponty's (1964) view, this detachment could not take place because the other is an extension of my body. As the two hands are co-present and co-existent since they belong to the same body, the other appears to me as an extension of this co-presence.[7] The other, like me, is an embodied consciousness that is percipient and perceived at the same time by me, while I am at the same time a percipient subject and a perceived lived body from the other's perspective: we co-perceive.

However, for Husserl — and Merleau-Ponty agrees with this — empathy does not give us a full picture of the other's mental states. "It is characteristic of empathy that it refers to an originary Body-spirit-consciousness but one I cannot myself accomplish originarily, I who am not the other and who only function, in regard to him, as a comprehending analogon" (Husserl, 2000, p.208). For Husserl, empathy is characterised by the perception of the other, and this is an original perception, while the experience, feeling, and belief of the other are not a direct experience given to me. I "can experience others, but only through empathy. Their own content can be experienced only by themselves in originary *perceptio*. Likewise, my lived experiences are given to me directly, i.e., the lived experiences in their own content.

[7] Intercorporeality is an element of intersubjectivity.

But others' lived experiences can be experienced by me only mediately, in empathy" (Husserl, 2000, p.210).

Therefore, the perception of the other, of its corporeality, is original, and she appears to me an embodied consciousness. We are involved in a co-perception, and her body is like an extension of my body. However, even though empathy allows me to put myself in the other's shoes and to make intersubjective relations with others possible, this claim does not mean that the other is fully given to me:

> Experience is original consciousness; and in fact we generally say, in the case of experiencing a man: the other is himself there before us 'in person'. On the other hand, this being there in person does not keep us from admitting forthwith that, properly speaking, neither the other Ego himself, nor his subjective processes or his appearances themselves, nor anything else belonging to his own essence, becomes given in our experience originally. If it were, if what belongs to the other's own essence were directly accessible, it would be merely a moment of my own essence, and ultimately himself and I myself would be the same. (Husserl, 1999, pp.108-109)

You and I are not identical or on the same level. Even when I feel I am able to understand the other, my experience is not direct, and even Merleau-Ponty (2005) stresses this point by claiming that "The grief and the anger of another have never quite the same significance for him as they have for me. For him these situations are lived through, for me they are displayed" (p.415). Therefore, although "Our perspectives merge into each other, and we co-exist through a common world" (Merleau-Ponty, 2005, p.413), the other and I are not the same thing.

What the other experiences in the first person is not the same as what I experience of him/her from my standpoint. This is caused by a lack of direct access to the other's experience. In other words, on the one hand, we face a givenness of the other that does not completely reveal the other.

I am in front of the apple again, but this time beyond it there is another person looking at the back of the apple, which I cannot see. I perceive her lived body (therefore, I do not perceive her mind and her body as two separated entities). I also perceive her body like an extension of mine, and not only am I perceiving her, she is also perceiving me, and together we are co-perceiving not only each other but also a common world and, in this specific case, a red apple. However, although I have a direct perception of her, I cannot have her direct perception of the apple. She is looking from another perspective, and for this reason, she is perceiving something that I am not perceiving. We are both two lived bodies that are co-perceiving, but our own perception is not accessible for the other.

There is a distance between us, and a difference is maintained. Indeed, without this difference, all the perspectives would be the same, so there would be no possibility for an objective constitution of the world. In my encounter with the other who is looking at the apple's back while I see its front, I can have a perspective that I do not experience personally but that can tell me more about reality.

Intersubjectivity is defined in Husserl as transcendental since it is what also makes possible the objectivity of the world. Transcendental intersubjectivity is necessary not only for the construction of a social world, but also for the formation of the objectivity: "Transcendental intersubjectivity is thus the one in which the real world is constituted as Objective, as being for 'everybody'. This is where the real world gets its sense, whether or not we have explicit knowledge of the fact" (Husserl, 2000, p.421).

In other words, it is through the encounter I have with the others that I can know the world objectively: "By this, Husserl means that the objectivity of the world is constituted intersubjectively and that a clarification of this constitution calls for an examination of my experience of other subjects. Husserl's thesis is that my experience of objective validity is mediated and made possible by my encounter with a transcendent other, and that this transcendence, which Husserl designates as the first real otherness and as the source of all kinds of real transcendence, endows the world with objective validity" (Zahavi, 2001, p.159).

As we will see in the next section, the phenomenological notion of intersubjectivity has been used by contemporary phenomenologists to ground the claim that the ToM is anticipated and/or accompanied by a perceptual, pre-reflective, embodied level of interpersonal relations. In this context, by taking into account first-perspective experiences of autistic people, phenomenologists claim that they would not lack the highest form of intersubjectivity: ToM. Instead, they would have a problem with earlier forms of intersubjectivity (Fuchs, 2015; Gallagher, 2004; Williams, 2004).

Phenomenological approach vs the ToM

In what follows, I present how the phenomenological account has been used to interpret intersubjectivity in autism.

Shaun Gallagher (2004) claims that false-belief tests (like the ones mentioned above, the Sally–Anne task) are efficacious but "limited in terms of trying to capture the nature of intersubjective understanding. One reason for this is that subjects are asked to predict the behavior of others with whom they are not interacting. The subject is installed in the role of third-person observer, and in this role the child is asked to predict what the other person will do" (p.204). As a consequence, the outcome of the test would not be applicable to

everyday life experience where the I–you relation is involved. Gallagher does not deny the possibility that ToM is implied, such as where intersubjective relations are disrupted, but basically in our everyday life experience we tend to engage with others by taking them not as bearers of inner states but as embodied subjects we engage with.

Gallagher (2004, 2013) thus developed an alternative account to ToM called interaction theory (IT), and it is grounded in the phenomenological account of intersubjectivity. The basic assumption is that ToM is insufficient to explain "normal" interactions since it requires detachment from a direct experience of others. IT specifically says that the development of the primary kind of intersubjectivities takes place earlier than the third year of life. To prove this, Gallagher took into consideration primary and secondary forms of intersubjectivity as developed by Trevarthen. "Primary intersubjectivity is the innate or early developing capacity to interact with others manifested at the level of perceptual experience - we see or more generally perceive in the other person's bodily movements, facial gestures, eye direction, and so on, what they intend and what they feel" (Gallagher, 2004, p.204). Newborns indeed already show an interpersonal intelligence (Trevarthen, 1998, p.15). It is in the secondary intersubjectivity, developing around the first year, that the infant overcomes the dyadic I–you relation to "enter into the context of shared attention – shared situations in which they learn what things mean and what they are for" (Gallagher, 2004, p. 207). These primary forms of intersubjectivity are maintained even when the ToM is fully developed, around the fourth year.

De Jaegher (2013) states that ToM does not take into consideration the interactional aspects even where issues of social interaction are discussed. What she suggests is to take into account autistic people not as isolated and disembodied subjects but as interactional and incarnated individuals by putting forth an enactive account[8] to cognition, a non-reductive approach according to which experience, embodiment, and social interaction are constitutive elements of subjectivity. Therefore, this approach can be used for an integration of the cognitive, social, communicative, embodied, interactive, experiential, and affective aspects of autism (De Jaegher, 2013, p.5).

In the light of this approach, De Jaegher claims that autistic people make sense of the world differently, and so they are differently able to participate in sense-making with others but in different ways. This is connected to the way one perceives, moves, and feels. In fact, there is a strong connection between embodiment and sense-making.

[8] Indeed, for phenomenologists, there is a strong link between perception and movement: "In ordinary experience, perception and movement are always united. I touch something by moving the arm. I see something by moving the head and eyes. What is perceived is perceived as nearby and perhaps reachable, or further way, as something that can be approached and explored" (Gallagher and Zahavi, 2021, p.131).

Autistic people have a different embodiment: they perceive and move differently due to more detailed perception and sensorimotor difficulties, and this makes a difference in the way they interact.

According to Gallagher, because of sensorimotor problems, autistic people are characterised by a disruption in the earlier forms of intersubjectivity. Therefore, these issues come much earlier than development of a ToM.

In "Who really needs a 'theory' of mind", Williams (2004) reconceptualises the TT and claims that usually typical children do not develop it, as sustained by Gopnik and Wellman. By contrast, they engage with others in a more spontaneous way (i.e., non-inferential mindreading style). Williams claimed that instead autistic people need to infer foreign mental states due to a lack of empathic engagement with others. In order to prove her thesis, she proposed an interpretative phenomenological analysis (IPA)[9] of 10 autobiographical experiences of people with Asperger's syndrome and high-functioning autistic people[10]. In IPA, a qualitative technique used to explore how the other sees and makes sense of the world, the researcher attempts to make sense of how participants try to make sense of their personal and social world and of what is happening to them (Smith *et al.,* 2022, p.3).

Fuchs (2015) is quite close to Williams's claim. He provided a phenomenological view to support the idea that autistic people may not lack a ToM. Rather, they seem to lack the earlier and non-inferential forms of intersubjective relations that they try to insufficiently compensate for later with their ToM. In other words, autistic people tend to have issues in the pre-reflective stages of intersubjectivity, and these issues compromise the forms coming later. Therefore, from a phenomenological account, autism should be described "as a *disorder of primary or embodied intersubjectivity*"[11] (Fuchs, 2015, p.196). "Disorder of primary intersubjectivity" means that autistic people fail to develop the basis for empathy that people usually have in face-to-face encounters; therefore, they miss a sensus communis or a sense of "being like others".

Even for Zahavi and Parnas (2003), who propose phenomenology as a helpful tool to investigate and contextualise structures of subjectivity in a systematic framework, autistic people would not be

[9] IPA received criticism since typical phenomenological methods, like that of reduction, are missed (Gallagher and Zahavi, 2021, p.41).

[10] Under Asperger's syndrome (AS) are included autistic people which have been described as high-functioning. This term is somewhat ambiguous but implies that there is no delay in the development of language and that the person has no intellectual disability. Nowadays, however, there is a debate about terminology used to indicate the different aspects of autism. The autistic community does not appreciate this kind of characterisation.

[11] Fuchs (2015) describes the two kinds of intersubjectivity by basing on the previous literature as Gallagher did, but he also provided a description of tertiary intersubjectivity. The abilities coming into the fore in the secondary intersubjectivity find full development in the tertiary one (taking place around four or five years) when the ToM makes infants able to see a difference between their own beliefs and mental states and those belonging to other people.

characterised by a lack of ToM. Indeed, they agree with the idea that high-functioning individuals tend instead to rely on ToM to compensate for a disruption of the pre-reflective understanding of social interaction.

In summary, according to the phenomenological notion of intersubjectivity, we directly engage with others without the need to infer what the others think, believe, or have the intentions to do — in other words, without the need to observe the behaviour to infer the hidden mental states of the others. Therefore, according to social cognition studies, autistic people would have a disrupted ToM, while from a phenomenological approach, the disruption takes place at the primary level of intersubjectivity.

Double empathy problem

We have analysed the ToM and why, according to a number of authors from the neurocognitive field, autism is characterised by a deficit of the ToM. Then, I explained what phenomenology is, its key concepts, and the phenomenological analysis of intersubjectivity in autism.

We have seen that if we assume autistic people as subjects missing a ToM, this means that they are not able to infer that others have mental processes, emotional states, beliefs, desires, etc. Put differently, they do not have the cognitive ability to make this inference possible. For some phenomenologists, autistic people are characterised by a disruption in the earlier forms of intersubjectivity, those already involved at a perceptual level, while they may use a ToM as a strategy to compensate for this lack.

However, I argue that both approaches do not take into account that a rising number of researchers and autistic people prefer to talk about a difficulty of social communication/interaction between autistic and non-autistic people (Crompton *et al.,* 2020; Milton, 2012). ToM and phenomenology make a significant contribution to the study of intersubjectivity in autism, but I believe that what Milton (2012) labels the “double empathy problem” should be taken into consideration. The word “double” is used here since what is considered problematic is not how autistic people interact with others, but the mismatch between autistic people and non-autistic people: “it is a ‘double problem’”, Milton (2012) says, “because both people experience it, and so it is not a singular problem located in any one person” (p.884). This claim means that, while autistic people may experience difficulties in understanding non-autistic people, the reverse happens as well: non-autistic people may not be able to read the autistic mind. As a consequence, the double empathy problem challenges those theories assuming that autistic people have a deficit of the ToM.

Empirical evidence of the double empathy problem has been provided by Crompton et al. (2020) in an experimental study where 72

participants were separated into three sets: an autistic people set, a non-autistic people set, and a mixed set of autistic people and non-autistic people (they took into consideration only adults). Each set was separated further into three sets of eight-people diffusion chains. They analysed how the first participant recounted a story she was told to the second participant, and the second participant to the third one, and so on along the diffusion chain. Although autism is often described as characterised by a deficit in sociality, the result of this investigation showed that there is not a dramatic difference between the outcomes resulting from the autistic chains and non-autistic ones, since both groups showed good detail retention. However, the mixed chains scored lower in comparison with the other two groups. This result suggested that issues occurred in the communication between autistic people and non-autistic people. An interpretation of this study is that, autistic people should be able to comprehend other autistic people, but both autistic and non-autistic people experience difficulties in communicating with each other.

> This is evidenced by our finding that autistic and non-autistic people do not significantly differ in how accurately they recall information from peers of the same neurotype but that selective difficulties occur when autistic and non-autistic people are sharing information. This occurs alongside significantly lower rapport within mixed groups. (Crompton *et al.,* 2020, p.1709)

This investigation is in line with what Bogdashina (2016), who challenges the traditional way of describing social deficit in autistic people, claims:

> Autistic children find it difficult (if not impossible) to understand the emotions, intentions and behaviours of other people, so they are said to lack "theory of mind". However, are non-autistic individuals "mind-sighted" when they deal with autistic people? Can they easily recognise the feelings and intentions of individuals with autism? Considering that autistic and non-autistic people do not share perceptual experiences due to differences in perceptual and cognitive functioning, don't non-autistic people find it difficult to take the perspectives of autistic individuals? If autistic individuals lack theory of mind, non-autistic individuals are sure to have deficits in their ability to understand the Theory of Autistic Mind. If we could remove one-sidedness from our interpretation of "mind-blindness", we would see how limited we all are in our ability to "mind-read". (p. 21)

The assumption that non-autistic people do not have a theory for autistic mind is something that we can also find in autistic people's experiences. Already in the 1990s, Jim Sinclair (1993) wrote the piece "Don't mourn for us", where he invites parents to reconsider their relationship with their autistic children. Specifically, he describes autistic people/children as "foreigners" in any community since they are expected to share a system, language, and meanings that have

been “created” by and for neurotypical people. What Sinclair (1993) suggests is that instead of expecting an autistic child to share a neurotypical system, parents should reframe their communication with them and understand their difficulties:

> Approach respectfully, without preconceptions, and with openness to learning new things, and you'll find a world you could never have imagined. Yes, that takes more work than relating to a non-autistic person. But it can be done--unless non-autistic people are far more limited than we are in their capacity to relate. We spend our entire lives doing it. Each of us who does learn to talk to you, each of us who manages to function at all in your society, each of us who manages to reach out and make a connection with you, is operating in alien territory, making contact with alien beings. We spend our entire lives doing this. And then you tell us that we can't relate.

Indeed, the awareness that issues arise from relations and a communication gap between autistic and non-autistic people, instead of residing in autistic people only, may help to make more room for autistic people and to re-frame the world as a space opened to them. What Sinclair asks is more comprehension in order to perceive autistic people not as foreigners forced by neurotypicals to adopt their point of view, system, language, etc. Reflection on the double empathy problem may encourage us to reconsider autism in a new light and to replace the term “deficit” with “difference”: “Differences in neurology may well produce differences in sociality, but not a ‘social deficit’ as compared with an idealised normative view of social reality” (Milton, 2012, p.886).

To conclude, although the double empathy problem is not yet backed by sufficient empirical evidence, it may help to reconsider autistic people not as a subgroup but as people with different characteristics. On the other hand, the double empathy problem encourages us to reflect on the condition, intersubjective relations, and communication of neurotypicals, since they may not be able to understand autistic people.

Summary and outlook

We have explored how researchers from the neurocognitive field consider autistic people as subjects with a deficit of ToM, while for some phenomenologists or researchers using a phenomenological method, ToM is instead a way to compensate for differences in primary forms of intersubjectivities. As a consequence, autistic people would have issues in early forms (perceptual, bodily) of intersubjective relations, not in an inferential mode of understanding others. Therefore, what comes to the fore from this analysis is that phenomenology, with its focus on the structures of subjectivity, is a powerful tool helping us to enrich the notion of intersubjectivity and

to consider intersubjective relations in autistic people from another perspective.

As a consequence, the two approaches follow two different lines: researchers from neurocognitive sciences claim that disruption happens at a cognitive stage of intersubjective relations, while phenomenology stresses the close relation between intersubjectivity and perception. Therefore, a phenomenological approach is essential in re-considering intersubjectivity relations in autism in the light of the interpersonal nature of the individual and her context. However, I argued that what both approaches miss is the reciprocal difficulty that both autistic and non-autistic people experience in understanding each other. This "reciprocity" aspect has been taken into account recently through the analysis of the double empathy problem, according to which issues do not reside in autistic people only, but in the communication gap between them and non-autistic people caused by their differences.

Certainly, further studies need to be undertaken to support this view, and since in the future both the ToM and phenomenology will still be involved in the study and description of intersubjectivity in autism, they could help encourage reflection on the double empathy problem. I believe that neurocognitive science, with its attention to the brain's functions, and phenomenology, with its focus on the human being always seen in its context and interpersonal relations, are fundamental in the exploration of how we experience ourselves and the world.

Therefore, further studies from neurocognitive studies may be devoted to the analysis of non-autistic people's brain when they are interacting with autistic people. Moreover, I would like to suggest that phenomenology could be a helpful tool to describe the mismatch between autistic and non-autistic people by involving its theoretical framework including the notion of subjectivity, perception, intentionality, intersubjectivity, and relation to the world. Specifically, in the future, phenomenology might attempt to describe the phenomenon of the reciprocal misunderstanding by exploring without prejudices this gap and how it is experienced by both parties in the light of subjective structures and interpersonal and contextual factors. Differences between autistic people and non-autistic people may even be explored without taking into account terms like "deficit", "disruption", "impairment", etc. Therefore, instead of discussing at which level of intersubjectivity autistic people may have a deficit, it could be more fruitful for phenomenology to describe the differences between autistic and non-autistic people by involving both parties in the project.

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