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Introduction

From Interacting Agents to Engaging Persons

Intentionality in Interaction revisits some of the classical questions to be found in the original programme for second-personal studies as established in Thompson's 2001 *JCS* issue and sheds new light on them, witnessing the evolving dynamics of such a programme over the last decade. The contributions in this issue approach the questions of how persons share intentions, emotions, and experiences, of how interaction is shaped by and transforms affection, emotion, and cognition, and of how such interactions develop over time and provide important insights into the development of human capacities in general, both in normal and pathological cases.

In this introduction, we situate the special issue in the context of social cognition in general and second-personal studies in particular. We propose an outline of a new framework to approach questions regarding interaction and its development and evolution, a framework based on a novel understanding of interaction in terms of *engagement between persons*.

Preamble

In 2001, Evan Thompson edited a special issue for the *Journal of Consciousness Studies* that had an extraordinary impact on the studies on social cognition. The issue, with the suggestive title 'Between Ourselves', brought to the centre of the theoretical scene an essential and yet up to then often neglected fact, namely, that consciousness

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necessarily involves an intersubjective dimension that any study of consciousness must seriously pay attention to. This focus on intersubjectivity is key for the study of consciousness both because there is little consciousness without intersubjective engagements and independently of them, and because intersubjectivity is to be understood in this context as a form of interaction *between persons*. This, in fact, ties in with the etymology of consciousness as *con sciere*, knowing with.

The field has developed a lot since then; discussions today are not so much about the principled possibility of ‘knowing’ another. Contemporary discussions take this as a point of departure, exploring implications and instances across fields and practices, as well as the developmental dimension involved. It is also critical in contemporary research that interactions are between persons with intentions, bodies, and aspirations. Accordingly, this special issue focuses on intersubjectivity in the concrete, that is, on persons doing things together. It approaches this topic from the perspective of different disciplines: Philosophy, Psychology, Neuroscience, and Biomedical studies. This issue, 14 years after Thompson’s groundbreaking volume, aims to reflect the developments in the area and hence to provide an important milestone for the field that could be read at the same time as a follow-up and development of the 2001 special issue.

A vast majority of current research into neural and cognitive mechanisms underlying social understanding is carried out in non-interactive situations. In contrast, the contributions collected here share a common point of departure by asking the following questions: 1) If interaction is made foundational in the empirical research, will that affect theories of cognitive and social processing and development? 2) Will shifting the focus to interactions have implications for the philosophical understanding of intentions, emotions, and sociality?

In this introduction, we argue that a positive answer to these questions, as given by the contributors, may provide tools to extend the idea of interactive agents into that of engaging persons in truly human settings.

Second-Personal Studies:¹ The Original Programme and Beyond

Thompson, in his introduction to ‘Between Ourselves’, defined the core tenets of the programme envisaged under the heading of

[1] Thompson’s coining of ‘second-personal’ is now often replaced by second-person, as e.g. in second-person neuroscience (Schilbach *et al.*, 2013). In this introduction we will stick to the original formulation to emphasize the trajectory from Thompson’s seminal work.

‘second-personal studies’ in terms of the endorsement of two theses: first, the idea that empathy is a precondition (the condition of possibility) of a science of consciousness; second, the claim that empathy is an evolved, biological capacity of the human species, and probably of other mammalian species, such as apes. In giving substance to this claim, Thompson presented the positions that can be thought to be part of such programme in terms of three features they all share, their differences notwithstanding, namely: (i) embodiment, i.e. the fact that the mind is pervasively located in the whole organism, (ii) emergence, i.e. the fact that cognition is constituted by ‘emergent and self-organized processes that span and interconnect the brain, the body and the environment’ (Thompson 2001, p. 3); (iii) self–other co-determination, i.e. the fact that ‘embodied cognition emerges from the dynamic codetermination of self and other’ (*ibid.*).

A couple of decades ago, an opposition between two research programmes characterized research in social cognition. Known as ‘theory theory’ (TT) and ‘simulation theory’ (ST), these were supposed to be mutually exclusive paradigms, and were widely considered ‘the only games in town’. Thus, up to 2001, existing research on intersubjectivity — how people experience and make sense of one another — had typically adopted a third-person perspective, where the other person is regarded as an object of detached observation and analysis. Since then, and to a great extent thanks to the work of Thompson and others, a series of novel approaches present themselves as alternative scientific conceptions of intersubjectivity extending and/or complementing TT and ST, now thought to be capable of working together. In contrast to the third-person perspective, the approach adopted in the second-personal studies programme focuses upon people engaged in actual interactions with one another, where their intentions are literally embodied, in posture, actions, and in cultural artefacts ranging from toys to more complex communication systems. Supported by empirical evidence, these alternatives encourage a robust role for embodiment as underlying our basic capacities for interacting with others. These novel approaches emphasize the role of direct perception of others’ mental states; they stress the importance of narratives; and they focus on the status of social interaction as a dynamical and creative process.

In the behavioural, cognitive, and brain sciences, the importance of processes of interpersonal interaction for understanding cognition was increasingly highlighted by embodied and enactive approaches (De Jaegher and Di Paolo, 2007; Fuchs and De Jaegher, 2009; Gallagher, 2008; Hutto, 2013; Zahavi, 2014) and empirical evidence

(Sebanz *et al.*, 2006; Reddy, 2008; Shockley, Richardson and Dale, 2009; Tognoli *et al.*, 2007), leading researchers to think across the traditional boundaries between brain, body, and social world. This interactional space is not covered by any single discipline today — on the contrary, it demands the synergistic development of novel research methods and work across traditional disciplinary boundaries. In this vein, the different contributions to this special issue develop novel methodologies for the scientific study of intersubjectivity. In particular, they investigate approaches to move beyond a mere correlation between third-person, detached measurements and first-person, subjective self-reports and into a genuine, interactive second-person engagement. In this way, they develop further existing work in fields like brain imaging (Schilbach *et al.*, 2013), phenomenological analysis (Depraz, 2012), clinical (Nordgaard, Sass and Parnas, 2012), psychotherapeutic (Stanghelini and Lysaker, 2007), and developmental studies (Reddy, Markova and Wallot, 2013).

Two Challenges to the Original Programme

The original programme has proven both theoretically fruitful and empirically successful over the past one-and-a-half decades and its main tenets are as valid today as they were then. Nevertheless, questions regarding two concepts at the core of the programme have developed over the last 14 years. If the programme itself could be characterized as taking as its basic starting point *persons* in *interaction*, both the concepts of interaction and of person call for a further elaboration.

1. *Interaction*. One of the main achievements of the original programme was to bring to light the role perception played in social cognition. Even if a perceptive component was also present in simulationist and TT more classical views, the interactionist programme suggested that perception could provide direct knowledge of other's mental states, that is, non-mediated by mind-reading mechanisms and inferences. But how was perception to play such a role? In order to overcome and challenge the third-personal paradigm that dominated studies in social cognition, second-personal studies needed to address two important challenges. First, perceptive knowledge of the other needed not to be based on mindreading (where perception is already loaded with mentalistic concepts and understood as involving inferential mechanisms whether based on simulation or theory). Second, the

relation that enables perceptual knowledge of another's mental states, such as emotions and intentions, needed to be something over and above the one usually meant by the phrase 'face-to-face encounters', since such reciprocal relation might be thought to be in place even when two persons assume an observational stance towards each other. Facing these two challenges, some advocates of the second-personal turn in social cognition claimed that perception was to be understood against the larger background of interaction (Gallagher, 2001; De Jaegher, Di Paolo and Gallagher, 2010; Fuchs and De Jaegher, 2009). *Perception in interaction* was the key concept upon which an alternative approach to social cognition was to be built. This goes hand in hand with the already mentioned emphasis on a second-person interactive approach in contrast to a third-person merely observational one. According to this view, I come to truly perceive another as another not merely by observing her from a detached perspective but by doing so in the meaningful affective context of concrete interactions. Having said that, the very notion of interaction was nevertheless not completely spelled out. Which are the necessary and sufficient conditions for us to speak of a proper interaction in a second-personal sense? What entities or beings can take part in an interaction? Many of the critics of the original programme indeed insisted on the fact that TT and ST could make room for perceptual knowledge of other people's mental states in interactive situations: in such cases the underlying mechanisms that allow for such knowledge are however simulationist and/or theoretical in nature (Lavelle, 2012; Bohl and Gangopadhyay, 2014; Overgaard and Michael, 2015). Hence, over the years, the need for a fine-grained concept of interaction that could be differentiated from looser ways of understanding 'interacting with' and be suited to address successfully the two challenges mentioned above — first, that perception is not mindreading and, second, that interaction is not mere bidirectional observation — has become apparent both for critics and defendants.

2. *Person*. What do we perceive in interaction? Is it neural states, signs, gestures, biological triggers? Phenomenology, which has developed a careful account of perception of others as such and has had a huge impact on the original programme, has provided a straightforward answer: we interact with *persons*, we perceive *persons* in interaction. So Husserl: 'The subject finds consciously in his surrounding world not only things but also, other

subjects. He sees them as persons who are engaged in their own surrounding world...' (Husserl, 1989, p. 200). But such a notion may still sound obscure. Indeed, one of the main challenges the original programme had to face was to provide an adequate account of the concept of person suitable to figure in an interdisciplinary empirical research programme. How to make the notion of person suitable for the experimental paradigm of current cognitive science is especially pressing. Indeed, the notion of person seems to resist a merely natural description: 'He who sees everywhere only nature, nature in the sense of, and, as it were, through the eyes of natural science... does not see persons' (*ibid.*, p. 201).

A very promising answer to the question about a naturalized concept of person was developed within the original programme by the dynamical systems theory. According to it, persons are autonomous dynamical systems. An autonomous system is a recursive network of processes that produce components that constitute the network itself. These systems are dynamical in that they interact with the environment in such a way as to preserve the functioning of the network. When such systems are separated they can be properly called an autonomous unit, what Maturana and Varela (1980) called an autopoietic unity.

The development of autonomous dynamical systems is a huge step forward in defining the notion of person in naturalistic cog-sci friendly terms. But do they capture everything that was at stake in the notion of person as developed in the phenomenology of Husserl and Merleau-Ponty or, more modestly, at least what was relevant of such a notion for the account of social cognition in terms of a second-personal interaction as the one put forward by the original programme? One problem is that autopoietic unity was coined to describe any biological organism, thus although it may provide an important starting point for a notion of persons, it cannot be an exhaustive definition. Even if it seems suitable to define organisms, as agents and entities, we still need something else for organisms to become persons.

The above considerations lead to pushing the conceptual framework advanced by Thompson further. The papers in this issue can be seen as contributing to that task by reshaping these two central concepts of the second-person paradigm in the study of consciousness, i.e. *interaction* and *persons*. In what follows, we will provide a brief overview of the way in which such reshaping can be conducted. We will specifically focus on how the notion of *engagement*, a key notion developed

from many different angles in this issue, contributes to delineating a new richer framework for the study of consciousness that takes the involvement of persons in interaction seriously.

Engagements Between Persons

We could provide a provisional definition of *interaction between persons* in the following terms: interacting amounts to *entering into patterns of engagement with other persons*.

But what defines engagement? What makes a given relation a relation of engagement and differentiates it from other kinds of interaction? An obvious answer would be that a relation of engagement is the kind of interaction that takes place between *persons*. Even if both definitions seem to depend on each other and hence may be thought to be circular, we shall soon show that is not the case. In particular, we shall be able to provide a definition of engagement that does not depend on the notion of person and thus sheds light onto it.

Let us start considering the notion of *person*. We may provisionally characterize *person* as a relational concept that can be defined in terms of possible and actual engagements with others. As we have pointed out, providing a naturalistic account of such a notion was one of the main challenges the original programme was to face. The difficulty for such a naturalization project fundamentally lies in the fact that *person* is not a concept to be found in biology and it differs in an important sense from the concept of human species. Unlike biological concepts such as ‘species’, that could be characterized in terms of underlying causal factors or essential features, the features that make a person a *person* are not necessary: paradigmatic tokens of the notion might lack some of the characteristic features and conversely some or a few of the characteristic features might — and usually will — be sufficient for something to be classified as a person.² An ape that is judged capable of engaging in emotional and empathic relations with us could be considered a person, as a recent court ruling in Argentina established³ or, perhaps controversially, we could consider a patient in permanent vegetative state to be a person.

Characteristic features relevant for the identification of persons include at least (a) components of a neurophysiological basis: neural processes, automatic bodily reactions such as autonomic physiological responses, etc. (an analysis of these features can be found in

[2] For cross-cultural ideas of non-human persons see De Castro (1998), Roepstorff (2001), Willerslev (2004).

[3] <http://gu.com/p/44cfy>.

Ebisch and Gallese, this issue); (b) expressive actions and action tendencies including a large arrangement of differential dispositions; (c) bodily expressions including facial, bodily, gestural, vocal expressions, such as smiling, waving, pointing, and shouting; (d) characteristic phenomenal experiences associated with emotions, feelings, volition, conative and cognitive states, etc.; (e) cognitive attitudes such as believing, doubting, knowing, perceiving, etc.⁴

What makes such a cluster of heterogeneous elements characteristic features of what being a person is, is that they form a *pattern*:⁵ the presence of some of them in a given arrangement amounts to the recognition of something as a person, even if, as explained, the absence of any one of them does not preclude the possibility of such recognition.⁶ Moreover, some of these features are likely to happen together while others don't; this will depend on an arrangement of causal mechanisms and different sorts of physical and causal constraints, but also on conceptual links to be studied both by empirical sciences and philosophy (see Newen and Welpinghus, 2013, p. 1081).

As a consequence, the concept of *person* involves a dynamical character: something becomes a person in the context of specific

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- [4] We are here adapting Newen and Welpinghus's (2013) talk of patterns in defining emotions to the notion of persons. While the characteristics seem to be classifiable in a similar fashion, the corresponding features are obviously different for the two concepts.
- [5] For the notion of pattern, see Dennett (1991), Haugeland (1993), and with a use close to the one we are suggesting here, applied to emotions, Newen and Welpinghus (2013) and Newen, Welpinghus and Juckel (in press). See also Roepstorff, Niewöhner and Beck (2010). As to the concept of person, Wittgenstein was the first to treat it as a pattern concept; see his *Remarks on Philosophical Psychology*. Wittgenstein (1980). Gallagher (2013) also applies the notion of pattern to the study of the self.
- [6] There is widespread agreement that talking of patterns typically involves objects, an arrangement (of those objects), and a certain recognition (of the arrangement) (Dennett, 1991; Haugeland, 1993; Gallagher, 2013). In a minimal definition we may identify patterns as presenting a certain order or arrangement of objects (in contrast to chaos; Haugeland, 1993, p. 275). Those objects exist independently of the pattern they are part of (though what they are may depend on it). Imagine a typical dot pattern where faces are seen when viewed at a distance. In this case, the existence of the dots naturally does not depend on the pattern they form but their being the dots of a given face does, it depends on the arrangement of the dots as well as on it being recognized as such. Something analogous holds for persons: having a certain physical appearance, certain facial muscular abilities, certain bodily reactions, being able to produce some utterances, etc. are all part of what makes a person a person but neither the presence nor the absence of any of them makes up a person independently of them being part of a more complex cluster of features. Moreover, a movement counts as a movement of a person because of its being part of the pattern, while the converse does not hold. But both objects and arrangements seem to depend on the recognition of the arrangement as exemplifying a certain determinate pattern. Moreover, what constitutes a specific pattern may be blurry (as in facial patterns where no single element might be singled out as an object of it independently of the overall recognition) and thus always dependent on being recognized as part of a determinate pattern.

dynamics of interaction and recognition. The developmental aspect is part of the very concept of person and not a further external determination of it. This is shown by Reddy, Gallagher, Fuchs, and Avramides, in this issue, who explore different dimensions by which persons develop through different sorts of engagements with others, and how an atypical development may lead to hindrances in the process of becoming a fully functioning person (see also Ebisch and Gallese, this issue).

To sum up, engagements are the specific kind of relations in which persons can enter and constitutive of the kind of being they are. Experiencing the emotions of love or hate with respect to each other, acting together toward a joint goal, writing together or painting or composing a music piece, learning and teaching, telling and believing what one is told, are all relations that shape and constitute us as the persons we are. Individual dispositions and actions are defined through these relations and develop through them. Importantly, one is not born a person (as opposed, for example, to being born a human) but one becomes one by entering into such relations with others. Recognizing someone as a person itself depends on and is a case of engaging with someone through some specific route or means.⁷

Naturalizing Persons

Since the notion of person cannot be construed starting from more basic features bottom-up, this suggests that the concept of person should be construed out of its richer and full-fledged instances that can only be singled out when understood in the context of interactions in which we recognize each other as such. Thus, it seems, a person can only be recognized as such through the interactions it takes part in. Recognizing someone as a person is itself dependent on entering into specific interactions with her. In this way, the notion of person understood in terms of patterns does not provide identity conditions in terms of underlying causal factors but rather offers a cluster of ‘overlapping similarities’ that allow for engagements. Might this suggest that this concept is not naturalizable after all? It would not be if one commits to the methodology of reductive naturalism that already asks for definitions in the essentialist sense, asking that the *definiens* be stated in the vocabulary of natural sciences.

[7] Although we share with Albert Newen the idea that persons, like emotions, are perceived as patterns rather than properties, our focus on persons as recognized in engagements would set us aside from the Person Model Theory, with its focus on models, schemata, and images (Newen, 2015). Rather, persons are more akin to organisms, autopoietic units, but they are constituted, recognized, and recognizable in and through specific engagements.

Can the concept of person be a natural one, even if not in a reductive sense? Being a person involves exemplifying some characteristic features, including similarities in dispositions to judgment and action, as Wittgenstein (*PI* §§ 241–2) famously remarked. But since these do not conform a set of identity conditions, the notion of a person is rather to be defined in terms of ‘patterns or overlapping similarities’, similarities that allow for engagement. These similarities are similarities ‘in nature’, or shall we say ‘natures’, as these come in degrees. Avramides in this issue explains how this can be so by appealing to some of Wittgenstein’s and Cavell’s ideas:

Stanley Cavell has suggested that we understand the work of philosophers such as Wittgenstein as having the aim of putting the human animal back into philosophy (Cavell, 1979, p. 207). I take it that at least part of what Cavell has in mind here is that, while we understand that Wittgenstein is drawing our attention to what we say and do, he is *also*, and importantly, drawing attention to the *nature* of those that engage in these activities. It is when *natures are shared that productive engagement can ensue*. It can, perhaps, be added that both the acknowledgment and the shared nature can come in degrees. (Avramides, this issue, footnote 26, our emphasis)

Even if the notion of person is both developmentally and conceptually dependent on the engagements persons enter into with each other, we can make sense of this notion as a naturalistic one. Similarities in nature (such as the features listed under a–e above) underlie and develop through engagements. What seems to put this notion at risk is that it now seems to be circular: persons cannot be defined or recognized independently of their engagements with other persons. But can we define the notion of engagement without appealing to the notion of person, that it contributes to clarify?

From Interacting Agents to Engaging Persons

As explained before, interactions provide the context in which direct perception of others’ mental states takes place and develops (see Reddy and Fuchs, this issue). The challenge faced by this paradigm was nevertheless to provide a rich enough notion of interaction that would make apparent the fact that the interactions at issue are special, namely the ones that take place between persons and not merely between organisms (Husserl, 1989; Merleau-Ponty, 1945/2012; Zahavi and Reddy, this issue). The open question, explored in different manners by Zahavi and Reddy in this issue, is exactly which notion of interaction can be suited for that role. While Reddy appeals

to the notion of joint action advanced by Butterfill (2012), showing how her notion of engagement satisfies minimal conditions for joint action (Reddy, this issue), Zahavi appeals to a rich phenomenological literature in order to uncover the constitutive traits of we-intentionality, a kind of engagement that aims to make clear what is at issue when sharing an experience with another in face to face encounters and beyond.

Can the existing literature on joint action help with the task of defining interaction in a way in which the concept is precise enough to single out interactions between persons as opposed to interactions between organisms? Most of the literature is divided between two views. One dominant way of thinking about joint action begins with the notions of shared intention or collective intentionality which, as many authors have argued, already presuppose cognitively and conceptually demanding theory of mind skills (Tollefsen, 2005; Butterfill and Sebanz, 2011). On the other hand, some recent empirical research, pursuing a minimal programme, has focused on the contribution of lower-level mechanisms of coordination in explaining joint action, and on cases of joint action where full-blown theory of mind skills may be absent (Knoblich, Butterfill and Sebanz, 2011; Butterfill, 2012). Unfortunately, none of these views are suited for the aforementioned task. The first view assumes a third-person perspective and as a consequence becomes blind to the possibility of genuine second-person interaction that may differ essentially from third-personal ones. If the second-person paradigm is taken seriously the very building blocks of these theories, such as the notion of individual intention, might suffer important reconceptualization (attempts in this direction are Di Paolo and Reddy in this issue; see also Hutto, under review). The second one, the appeal to a minimal programme, though interesting in its own terms, has nevertheless a different target. The aim of the programme is to provide a thin enough notion of joint action that will go beyond the specific human case and encompass many different beings in interaction. When it comes to interactions that are uniquely between persons they tend to refer back to the TT or ST mechanisms, as in the first paradigm (Knoblich, Butterfill and Sebanz, 2011); or leave the exact nature of human-specific engagements open (Butterfill, 2012; and Satne, under review, for a critical analysis).

The distinction between interaction and engagement as presented in this introduction aims precisely to shed light on interaction as a form of relation that is *uniquely interpersonal*. This is captured by the notion of engagement. This notion encompasses two distinctive traits: an experiential aspect and a normative aspect. Engagements can be

characterized by these two distinct aspects that together give to these relations their unique complex structure.

As to the former, characteristic of interpersonal engagements there is an inherently affective and emotional aspect. Something it is like to enter into relations of engagement with others that is in turn shaped by those very relations. Among these affective components there are emotions such as hate, love, sorrow, etc. This aspect of the notion of engagement is largely studied in Phenomenology (see Reddy, 2008; Zahavi, 2014; Zahavi, Fuchs, and De Jaegher in this issue explore this dimension of persons' engagements at length).

As to the latter, one of the main traits of interpersonal engagements is that they involve a distinctive normative dimension that gives them the structure and dynamics they have. Each participant is responding to the *expectations* of the other and tailors her participation accordingly. Moreover, this interrelation of expectations is more than merely guessing what the other is expecting, or spontaneously responding to it. Rather, what is at play is a relation of mutual commitment between the participants, a commitment to tailor future intentionality with respect to future normativity — expected patterns of actions and reactions — *vis-à-vis* others' expectations. In this manner, engagement sets up a special form of jointness that opens up to past and future and thus extends through time beyond the here and now of the interaction (see Reddy and Di Paolo in this issue for a rich analysis of how the notion of intention and the corresponding intentions-in-action are normatively shaped by the engagement with others, from birth, through development, to everyday experiences).

In sum, the current special issue aims to provide and articulate a conceptual framework for embodied intersubjectivity, clarifying the relation between neural processes, interaction dynamics, and self-experience. Intersubjectivity is explored at the sub-personal, personal, and interpersonal levels. It is in such a context that a comprehensive theoretical framework capable of articulating the links and relative autonomy between phenomena at the sub-personal, personal, and interpersonal levels must continue to be developed. We argued that a conceptual focus on 'engaging persons' may provide some building blocks to that framework, building blocks that may help to capture something specifically personal, without breaking with the important advances of the general understanding of interactive agents (see Roepstorff, 2013). The current special issue aims to be a contri-

tribution to the development of this crucial aspect in the study of consciousness. It is structured around three sub-themes: 1) Sharing intentions; 2) Experiencing interactions; 3) Varieties of engagement.

To highlight the transdisciplinary nature of the topic, the issue is structured around papers followed by critical comments from a different field. The issue is loosely based on the International Conference ‘Enactive and Phenomenological Approaches to Intersubjectivity’ held at the University of Copenhagen in February 2013, as part of the Marie Curie International Training Network TESIS (Towards an Embodied Science of Intersubjectivity).

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