Collective Phenomenology

Elisabeth Pacherie

HAL Id: ijn_01723147
https://jeannicod.ccsd.cnrs.fr/ijn_01723147

Submitted on 5 Mar 2018

Collective Phenomenology

Elisabeth Pacherie

Institut Jean Nicod, CNRS UMR 8129, Institut d'Etude de la Cognition, École Normale
Supérieure & PSL Research University, Paris, France

1. Introduction

Phenomenology, understood as a field of enquiry rather than as a movement in the
history of philosophy, is concerned with the study of subjective experience and investigates
the structure and nature of various types of conscious experiences. But what is collective
phenomenology about?

One might take collective phenomenology to be concerned with the study of group
consciousness, of the subjective states of collectives qua collectives. This immediately raises
the question whether such an object of study exists. Can a collective as such be a locus of
subjective experience? Is there something it is like to be a group or a collective? Can
collectives (e.g., the United States, Microsoft Corporation, Amnesty International) literally be
said to experience perceptual states, emotions, a sense of agency, pleasure or pain or any other
phenomenal states we readily ascribe to individuals?

One might be skeptical that collectives as such can have phenomenal states, but still be
willing to countenance the existence of collective phenomenal states—e.g., collective joy,
collective grief or a collective sense of agency for some achievement—conceived as
experiential states had by individuals in a group and shared by them in some suitable way. On
this understanding of "collective phenomenology", the main conceptual challenge is to

elucidate in what sense experiences must be shared in order for them to constitute together a collective experience and the main scientific challenge is to identify the mechanisms and processes that make this sharing possible.

A third issue we must confront concerns the subjective specificity of shared or collective experiences. How do they differ from individual subjective experiences? What specific subjective qualities, if any, characterize collective experiences? Are the elements of collectivity of these experiences reflected in their mode or their contents?

2. Is there something it is like to be a group?

Business corporations, non-governmental organizations, political parties, supporter clubs, universities, and consumer associations are collective entities. Many have argued that intentional states can rightfully be ascribed to these collectives in their own right (Gilbert 1992; Rovane 2004; Petit 2003, List & Pettit 2011; Tollefsen 2015; Tuomela 2013; see also Chapter 8 this volume). In particular, in taking groups or collectives to be genuine decision-makers or believers, one allows for the possibility that a group or collective sometimes make decisions or hold beliefs that the majority of members would not accept individually. But what about ascribing experiences to collectives or groups? Do groups have phenomenal consciousness? Can experiential states be had by a group in its own right, independently of the experiential states of the individuals that compose it?

Knobe and Prinz (2008) investigated people's intuitions about the ascriptions of intentional states (e.g., beliefs, intentions, and desires) and of phenomenal states (e.g., emotional experiences, feelings of depression, feelings of pain) to collectives. They presented the participants to their study with sentences that ascribed either intentional or phenomenal states to a fictional corporation, Acme Corp., and ask them to rate the acceptability of such

sentences. Their participants found sentences ascribing intentional states to collectives perfectly acceptable, but sentences ascribing phenomenal states unacceptable. These results suggest that commonsense psychology draws a sharp distinction between phenomenal and non-phenomenal states. While our folk-psychological intuitions regarding the ascription of non-phenomenal states accord with a functionalist view of mental states, our intuitions regarding the ascription of phenomenal states appear to be sensitive to the physical make-up of an entity.

Several researchers, however, have offered reasons to think that the folk-psychological distinction between the ascription of phenomenal and non-phenomenal states may not be as sharp as this study suggests. First, as noted by Schmid (2014b), 'Acme Corp.' is the fictional corporation par excellence in American pop-culture and, moreover, corporate expressions of emotions are often prime examples of bullshit in Frankfurt's sense. They are used as tools for improving the corporation's public image and only the most naïve and credulous people would even think them taking literally. The choice of 'Acme Coop.' as the ascribee in the sentences of the study may thus have contributed to the reluctance of the participants towards ascriptions of phenomenal states to collectives. Second, our willingness or unwillingness to ascribe psychological states to collectives may also be influenced by cultural factors, such as a more individualist outlook in Western cultures relative to the more collectivist perspective in East Asian cultures. Huebner, Bruno and Sarkissian (2010) investigated this possibility with both American and East Asian participants, following the methodology used by Knobe and Prinz, but surveying a broader range of non-fictional collectives (e.g., the Mind Dynasty, Denmark, Sony Corporation). They found that while both groups of participants were more willing to ascribe phenomenal mental states to individuals than to collectives, the East Asian participants were far less reticent than their American counterparts to ascribe phenomenal states to groups.

One may question, however, whether we should abide by our folk-psychological intuitions in these matters and whether, moreover, these intuitions should be understood as metaphysical intuitions or merely as intuitions regarding the appropriateness of certain forms of figurative language. If these folk-psychological intuitions are simply linguistic intuitions, cultural differences should be expected. Talk of an ear of corn or the eye of a needle seems perfectly fine for English speakers, but their literal translations would sound weird to French speakers. Yet, this doesn't mean that English and French speakers have different biological intuitions: no one, whether English- or French-speaking, thinks that corn have ears or needles eyes in the same way we do. Another approach to the issue whether there is such a thing as group consciousness might be to use our best scientific theory of phenomenal consciousness as a guide. The idea is that we should consider what the theory says is needed for an agent to have phenomenal states and then investigate whether collective agents meet these requirements. While the general method makes sense, two difficulties immediately arise. First, there is as yet no generally agreed upon theory of phenomenal consciousness. Rather, it is a matter of intense debate in both philosophy and the cognitive sciences what it takes for an agent to enjoy phenomenal consciousness. Second, as pointed out by Schwitzgebel (2015), many existing theories either implicitly or explicitly limit themselves to human or at most vertebrate consciousness, and it is not obvious how properly to extend them to cases outside their original scope. Keeping in mind these difficulties and leaving aside classical dualist theories to concentrate on materialist views of consciousness, let us briefly consider here three influential options and tentatively assess the prospects of group consciousness from their respective perspectives.

According to materialism, our brains are what make us conscious. But what features of brains or of brain organization are responsible for phenomenal consciousness? On one family of views (e.g., Crick & Koch 1990; Melloni et al. 2007), phenomenal consciousness is tied to

neural synchrony, and in particular to specific kinds of synchronous activation of neural populations at very fine temporal scales. Andy Clark (2009) has recently argued that if consciousness depends on such high-bandwidth synchrony, then consciousness may indeed require brains as the only physical structures with an architecture where this can be achieved. This conclusion may, however, be resisted. First, even from a biological standpoint, neural synchrony doesn't appear to be a sufficient condition for consciousness, since, for instance, seizure-induced loss of consciousness is associated with highly synchronous brain activity (Arthuis et al. 2009). Second, even if neural synchrony is what implements consciousness in the human brain, we lack, as Schwitzgebel (2015) and List (2015) point out, a principled motivation for excluding the possibility that consciousness may be implemented by a different architecture in other kinds of beings or entities.

Another family of views abstracts away from issues of neural implementation, focusing instead on information processing and attempting to characterize the forms of information processing that underlie consciousness and the kind of cognitive (rather than neural) architecture that could support these forms of processing. One very influential proposal is that consciousness requires integrated information processing and that this is made possible by cognitive architectures that involve a "global workspace" where information processed by various cognitive subsystems comes together, is made globally accessible, integrated and redistributed across subsystems. (e.g., Baars 1988; Dehaene and Naccache 2001; Dennett 2005). The global workspace hypothesis can explain many important features of (human) consciousness, such as its role in handling novel situations, its limited capacity, its sequential nature, certain constraints on the nature of conscious contents, the flexible ways in which these contents can be manipulated and the subjective unity of consciousness.

As noted by Schwitzgebel, on this account of consciousness, group consciousness would appear to be largely unproblematic. All it would take for a group to be conscious is the

existence of some "global workspace" that receives the information processed by cognitive subsystems (the individual members or sub-groups of the group), integrates it and redistributes it. For instance, one may think of the steering board of a business corporation, or of the bulletin board of your local sports club as playing the role of "global workspaces". While global workspace theory may be taken to offer a convincing account of access consciousness, it is much less clear, however, that it offers an account of phenomenal consciousness. As Chalmers (1995: 205) points out, "nothing internal to the theory explains why the information within the global workspace is experienced. The best the theory can do is to say that the information is experienced because it is globally accessible." Thus, their meeting the conditions laid out by the global workspace theories may provide sufficient justification for the attribution of access consciousness to groups or collectives. But unless one takes the conditions for access consciousness to be also sufficient conditions for phenomenal consciousness, the global workspace theory sheds no light on whether or not there is something it is like to be a group.

Let us conclude this brief survey with Integrated Information Theory (IIT), a much discussed "mathematical" theory of consciousness developed over the last decade by Giulio Tononi (Tononi 2008; 2012). According to IIT, information integration of the relevant sort is both necessary and sufficient for consciousness regardless of the substrate (biological or not) in which is realized. The theory understands consciousness as a purely information-theoretic property of systems and proposes a mathematical measure φ that aims to measure a system's degree of informational integration. ITT conceives of consciousness as a graded property: a system with a higher φ value will be more conscious than a system with a lower φ value. In addition, it postulates that when a system is itself a complex integrating other systems, only the system in the complex with the highest φ value will be conscious (exclusion postulate). In

other words, while a conscious system may have unconscious parts, or an unconscious system have conscious parts, a conscious system cannot have conscious parts.

It would seem to follow from ITT and its exclusion postulate that group consciousness does not exist, since the degree of informational integration (the value of φ) at the group level is quite low compared to the degree of information integration of some or most of its component parts (e.g. people and their brains). Schwitzgebel (2015) argues, however, that the exclusion principle on which this conclusion rests has no solid motivation and should be rejected. Indeed, Tononi defends the exclusion postulate on the grounds that it is intuitively absurd to suppose that group consciousness could emerge from two people talking. However, in the context of a discussion of group consciousness this defense of the postulate appears very much question-begging.

Yet, even if we set aside the exclusion postulate, it remains true, as List (2015) points out, that the degree of informational integration at the group level is quite low and indeed much lower than the degree of information integration found in the brain of a small mammal like a mouse. This, List points out, "should suffice to cast doubt on the existence of any significant amount of group consciousness" (2015: 20).

So, is there something it is like to be a group? The jury is still out and a final decision might have to be postponed until we have achieved the Grail of a general theory of phenomenal consciousness. At present, however, the prospects of group phenomenal consciousness look rather dim. Even its more optimist proponents would seem to agree that group consciousness, if it exists at all, is itself a rather dim affair and that there isn't much it is like to be group.

2. Collective experiences as shared experiences

Many may be skeptical as to the existence of group consciousness, but few would doubt the existence of collective experiences understood as experiences had and shared by individuals as members of some group. Indeed, some of our most vivid experiences appear to be of that kind: the sense of awe experienced by humankind at large when Neil Armstrong stepped on the Moon on July 20, 1969, the joy experienced by the supporters of Manchester United when their team won the FIFA Club World Championship in 2008, or the mixture of grief, sadness, disgust and anger experienced by the French after the Charlie Hebdo shooting and the Jewish supermarket attack in Paris in January 2015 certainly count as very powerful collective experiences. However, the exact nature of such collective experiences remains difficult to pin down. In what sense must experiences be shared to qualify as collective experiences? What exactly are the elements of collectivity in such experiences?

On a minimalist sense of sharing, two individuals may be said to share a state if each happens to be in that state. Sharing in this sense is nothing more than aggregation. This notion of sharing appears too weak, however, to warrant talk of collective states, whether intentional or phenomenal. The vast majority of the French probably feel hungry around dinner time, but this doesn't seem sufficient ground for attributing to the French a collective feeling of hunger at dinner time. A slightly more demanding notion of sharing would require in addition that the states experienced by the individuals have a common target. The hungry French do not satisfy these further requirements, the feeling of hunger each experiences has a different target, the experiencer's own desire for food.

But even adding this requirement doesn't seem enough. Suppose after dinner, the French happen to all watch the film *The Texas Chainsaw Massacre* shown on French TV that night. At some point they may all feel scared and their fear have the same target, e.g., that Sally be caught by Leatherface. Yet, we would still be reticent to talk of a collective experience of fear.

Many would agree that collective experiences require some stronger form of alignment of individual experiences. With the exception of some recent work on experiences of collective agency, research on collective experiences has mainly focused on collective emotions, with a long tradition of investigation going back at least to the work of Gustave Le Bon (1895) on the psychology of crowds (see von Scheve & Salmela (2014) for a recent collection of papers exploring collective emotions from philosophical, psychological and sociological perspectives; see also Schmid, Chapter 13 this volume). This literature has explored various factors contributing to the alignment of individual experiences. These factors can be divided into two broad categories: bottom-up and top-down factors.

Important bottom-up alignment factors include interpersonal entrainment mechanisms, perception-action matching, mimicry, emotional contagion, and joint attention. Interpersonal entrainment is a process whereby two people interacting together automatically synchronize their movements and behavior, even in the absence of direct mechanical coupling (see also Butterfill, Chapter 7, this volume). Thus, two people sitting next to each other in rocking chairs will unconsciously synchronize their rocking frequency (Richardson et al. 2007), two people walking side by side will tend to fall in synchrony (van Ulzen et al. 2008) and, so will do two individuals asked to tap at a comfortable tempo (Oullier et al. 2008). Another related process than can induce interpersonal alignment is perception-action matching. A number of recent theories—the common coding theory (Prinz 1997), the motor simulation theory (Jeannerod 1997, 2006), and the motor resonance theory (Rizzolatti & Sinigaglia 2008)— postulate an interface between perception and action such that the perception of an action leads to the activation of a corresponding action representation in the observer's action system. These alignment processes would not simply induce people who happen to be engaged in similar behaviors to synchronize them, they would also lead them to mimic the

postures, mannerisms, voices, facial expressions, movements and actions of their interaction partners (for reviews, see van Baaren et al. 2009; Chartrand and van Baaren 2009).

Motor synchrony and mimicry have been shown to exert a number of effects on social interaction. Thus, they tend to increase rapport and promote positive relationships (Chartrand & Bargh, 1999; Miles et al. 2009), to increase affiliation (Lakin & Chartrand 2003, Hove & Risen 2009), and to lead to more pro-social behavior and cooperation (van Baaren et al. 2004; Wiltermuth & Heath 2009). In addition to these general effects, motor synchrony and mimicry appear to support the sharing of specific states, as emotions or intentions. For instance it has been argued that automatic facial, vocal and postural mimicry allow people to catch one another's emotions and are important mechanisms in emotional contagion, which contributes in turn to the elicitation of collective emotions (Hatfield et al. 2014) and to what Durkeim (1912) called collective effervescence. Similarly, in the joint action domain, perception-action matching processes may help participants understand the actions of their partners and predict their outcomes, thereby facilitating mutual responsiveness in action. For instance, it has been shown that people tend to predict the sensory consequences not only of their own but also of other participants' actions (Wilson and Knoblich 2005) and that they tend to 'co-represent' tasks that other people are performing next to them, even when it interferes with the performance of their own task (e.g., Atmaca et al. 2008).

Finally, joint attention provides a basic mechanism for sharing representations of objects and events and thus for creating a perceptual common ground (Tomasello & Carpenter 2007; Campbell, Chapter 10 this volume). Joint attention may thus play an important role in ensuring that agents acting together track the same objects and events in the environment, adjust what they do in response to relevant changes in the situation, including changes brought by their own actions, and be mutually aware that they do. Similarly, in tandem with emotional expressions, joint attention may allow information about the relevance

of an event to be shared and contribute to aligning the appraisals of several agents, thus underlying the elicitation of collective emotions directed at the same target (Brosch 2014).

In addition to these bottom-up processes, top-down processes also contribute to the alignment of individual experiences. Social identification and adherence to the goals, values, norms, standards, beliefs, and practices of the group one identifies with – what Tuomela (2007, Chapter 2 this volume) calls the group ethos – may lead members to share emotions and other experiential states. Social psychologists characterized group-based emotions as emotional reactions that arise when people appraise events with respect to group concerns rather than their personal concerns (Kessler and Hollbach 2005; Smith, Seger, and Mackie 2007). In particular they have highlighted the important role of group-based emotions in intragroup and intergroup attitudes and behavior. But how exactly are social identification and group-based emotions arrived at? Margaret Gilbert proposes that collective emotions are arrived at in the same way as collective beliefs, intentions and attitudes are, namely through joint commitments (Gilbert, 2002, 2014, Chapter 11 this volume). Just as a group has a collective intention in virtue of its members being jointly committed to intending as a body to perform a certain action, a group can have a collective emotion (e.g., collective guilt) in virtue of its members being jointly committed to being as a body in a certain emotional state. Two main worries can be raised against Gilbert's view. The first is an instance of the worry discussed in section 2: emotions are phenomenal states and besides states in which bodily sensations play an important role and it is unclear that such phenomenal states can exist at the group level. The second worry is linked to the fact that commitments are, in Gilbert's phrase "creatures of the will". Emotions, however, do not seem to be states we can commit to having, since we cannot make ourselves feel an emotion at will (Salmela 2012). To defuse these worries, Gilbert is forced to adopt a strongly cognitive view of emotions, according to which emotions are essentially a matter of evaluative judgments and feelings play only a contingent

role. Many, however, would see such a strong cognitivist view of emotions as implausible (e.g., Konzelmann Ziv 2007; Wilkins 2002).

Helm (2010) and Salmela (2012) defend another option and propose that we indirectly commit ourselves to emotions (and other phenomenal states) by collectively committing ourselves to the goals, values, norms and concerns that define our group's ethos, where the phenomenal states arrived at in this way are states of individuals rather than states of a group-entity. In addition, Salmela offers a typology of shared emotions inspired by Tuomela's analysis of shared attitudes of different degree of collectivity. He distinguishes between weakly, moderately, and strongly shared emotions, according to whether these emotions have their sources in overlapping private concerns and attitudes of individuals (e.g., panic in the stock market), in shared, socially grounded private concerns and attitudes—i.e., concerns individuals commit to because they believe that other members of their group have them—or, finally, in concerns and attitudes group members are collectively committed to. Salmela also proposes that for emotions to be shared, it is furthermore required that their emotional responses be synchronized—via the bottom-up mechanisms described earlier—and that the group members must be mutually aware that others are feeling the same.

Thus, the emotions experienced by the French after the terrorist attacks in Paris in January 2015 would qualify as strongly shared emotions because these attacks were perceived by the French as attacks on fundamental values of the French society they were collectively committed to but also because the French responded with massive rallies where a whole range of lower-level synchronization processes were at work, inducing highly synchronized emotional reactions.

As Salmela's account of shared emotions suggests, both bottom-up and top-down processes are typically at work in sharing experiences. Importantly, they do not simply function in parallel. Rather, there are bi-directional connections between them. On the one

12

hand, as we have seen already, low-level synchronization processes can increase group affiliation and promote pro-social behavior. On the other hand, social affiliation also appears to modulate bottom-up processes. For instance, there is evidence that actions are co-represented less when one's co-actor is an out-group member than when he or she is an in-group member (Müller et al., 2011) and that group membership modulates non-conscious behavioral mimicry (Yabar et al. 2006).

4. Mode and content of collective experiences

The discussion in the last section suggests that for experiences to count as shared or collective, it is not enough that individuals have experiences with the same or similar targets or causes. The individual's experiences should also be interrelated in some tighter way via bottom-up causal processes of alignment and synchronization, via processes of social identification and commitments to certain attitudes, norms and concerns, or via both types of processes. In addition, there should be mutual awareness among the individuals concerned that they are feeling the same. Are these conditions on sharing somehow reflected in the mode or the content of shared experiences? Is the subjective feel of an experience of joy, for instance, different depending on whether the joy is individual or shared with others?

On a minimalist option, the content and mode of a singular and a collective experience would remain essentially the same. The only important way in which collective experiences might differ from their individual counterparts is in terms of their intensity or strength. Factors such as mimicry, contagion, joint attention and behavioral entrainment would contribute to the mutual reinforcement of the feelings experienced, as is typically the case in

collective rituals, whether religious or not, where all these factors are typically present (Knottnerus, 2014).

Many, however, would contend that there are more substantial qualitative differences between singular and collective experiences and argue that the shared character of the experience, its we-ness, is part of the subjective quality of collective experiences. This idea can be pursued in several ways.

Schmid (2014a, Chapter 13 this volume) defends the view that the "sense of us" present in collective experiences is best analyzed as involving a transformation in the mode of self-awareness constitutive of the experience. His view has close ties with self-presentational theories of consciousness, according to which pre-theoretical self-awareness is an intrinsic feature of conscious experiences: consciousness of something is always also necessarily consciousness for oneself. However, he proposes that the self-awareness feature of conscious experiences is not always singular and that there can be plural-self awareness as well. In other words, whereas singular self-awareness would be awareness of my experiences as my own, as experiences that are my own take or perspective on something, plural self-awareness of conscious experiences would be awareness of these experiences as ours, as our shared take or perspective on something. What Schmid proposes here is to distinguish between the ontological subject of an experience and its phenomenological subject (the subject as given in the mode of the experience). He does not deny that the ontological subject of an experience is the individual in whose brain the experience is realized, but he claims that ontological and phenomenological subject need not always coincide and that the phenomenological subject can be a "we", a plural subject rather than an "I". One might object to this view on several grounds. First, the view is premised on a conception of consciousness according to which self-awareness is constitutive of all conscious experiences and one might disagree with this conception of consciousness. Second, even if one accepts that consciousness implies self-

awareness, one might disagree with the idea that the ontological and the phenomenological subject of experiences can really come apart and argue that phenomenological we-ness is an illusion and that veridical self-awareness is always in the singular (Salmela 2012).

For those disinclined to accept the idea of a plural phenomenological subject or a plural mode of experience, but still thinking that that there are intrinsic differences between individual and collective experience, the avenue that remains open is to construe these differences as differences of contents. Several options are available. First, one might take as one's starting point a self-representational rather than, as Schmid does, a self-presentational theory of consciousness. Both theories claim that consciousness implies self-awareness, the key difference being that self-presentational theories capture self-awareness in terms of mode of awareness, whereas on self-representational theories, the self element is part of the content of the experience (e.g., Kriegel 2009). One could then make a move similar to Schmid's and argue that whereas in an individual experience, my experience represents something as so-and-so *for me*, in a collective experience my experience represents something as so-and-so *for us*. Again, one may not care for this approach either because one is skeptical about self-representational theories of consciousness or because one thinks that the self that is represented as having the experience cannot possibly be divorced from the ontological subject of the experience.

A second possibility would be to argue that when an experience is collective, the awareness we have that this feeling is shared has itself a phenomenal dimension and involves a feeling of its own—something akin to a sense of belonging or a feeling of social affiliation. On this proposal, collective experiences might be described as composite experiences, combining, or perhaps coalescing, a primary phenomenal experience (the experience that is shared) and a phenomenal experience of sharing.

Finally a third possibility is that when an experience is shared, its primary contents might be modified or restructured in certain ways. There is, for instance, empirical evidence that attending to objects together from opposite perspectives makes people adopt an allocentric rather than the default egocentric frame of reference (Böckler et al. 2011), that the presence of another person makes an agent perceptually sensitive to affordances for joint action (Davis et al., 2010), and that social identifications affect bodily self representations (Farmer & Tsakiris, 2012). More generally, it has been proposed that, in social contexts, mechanisms for sensorimotor transformations and multisensory integration incorporate information relative to the other people's perceptual perspectives and motor capabilities to construct "shared action spaces", supporting key computations for social interactions and joint actions (Pezzulo et al. 2013).

5. Parting remarks

With the exception perhaps of collective emotions, collective phenomenology remains to this day a largely uncharted territory. We still lack detailed conceptual analyses of what exactly collective experiences are, how they relate to individual experiences and what phenomenal properties they have. Likewise, empirical investigations of their psychological and neural underpinnings remain rare. While some of the central issues that need addressing have been briefly surveyed here, other issues are equally pressing. For instance, does the range of phenomenal properties that can be collectively experienced coincide with the range of properties than can be individually experienced? Existing work has concentrated on collective affective experiences and to some extent on collective agentive experiences, but what about collective perceptual or collective cognitive phenomenology? Similarly, we know little about the exact functions of collective phenomenal consciousness and their relations to the functions

served by individual phenomenal consciousness. There are reasons to suspect, however, that, it has broad societal relevance, and intrepid explorers are needed to further map this territory.

References

Arthuis, M., Valton, L., Régis, J., Chauvel, P., Wendling, F., Naccache, L., Bernard, C. & Bartolomei, F. (2009) "Impaired consciousness during temporal lobe seizures is related to increased long-distance cortical–subcortical synchronization," *Brain*, 132(8), 2091-2101.

Atmaca, S., Sebanz, N., Prinz, W., & Knoblich, G. (2008) "Action co-representation: the joint SNARC effect," *Social Neuroscience*, *3*(3-4), 410-420.

Baars, B. J. (1988) *A cognitive theory of consciousness*, Cambridge: Cambridge University Press.

Böckler, A., Knoblich, G., & Sebanz, S. (2011) "Giving a helping hand: effects of joint attention on mental rotation of body parts," *Experimental Brain Research*, 211: 531-545.

Brosch, T. (2014) "Neurocognitive mechanisms of attentional prioritization in social interaction," in C. van Scheve & M. Salmela (eds.) *Collective emotions* (pp. 78-93) Oxford: Oxford University Press.

Chalmers, D. (1995) "Facing up to the problem of consciousness", *Journal of Consciousness Studies* 2(3): 200-219.

Chartrand, T.L., & Bargh, J.A. (1999) "The chameleon effect: the perception-behavior link and social interaction," *Journal of Personality and Social Psychology* 76(6), 893–910.

Chartrand, T.L., & van Baaren, R.B. (2009) "Human mimicry," *Advances in Experimental Social Psychology*, 41: 219–274.

Clark, A. (2009) "Spreading the Joy? Why the Machinery of Consciousness is (Probably) Still in the Head," *Mind* 118(472): 963-993.

Cochrane, T. (2015) "Review of Mikko Salmela and Christian von Scheve (Eds.), Collective

emotions," *Phenomenology and Cognitive Science*, 1-7.

Crick, F., & Koch, C. (1990) "Towards a neurobiological theory of consciousness,"

in *Seminars in the Neurosciences* (Vol. 2, pp. 263-275). Saunders Scientific

Publications.

Davis, T.J., Riley, M.A., Shockley, K. & Cummins-Sebree, S. (2010) "Perceiving affordances

for joint actions," *Perception*, 39(12):1624-44.

Dehaene, S., & Naccache, L. (2001) "Towards a cognitive neuroscience of consciousness:

Basic evidence and workspace framework," *Cognition*, 79, 1–37.

Dennett, D. C. (2005) *Sweet dreams*. Cambridge, MA: MIT.

Durkheim, E. (1912) *Les formes élémentaires de la vie religieuse*. Paris: Alcan.

Farmer, H. & Tsakiris, M. (2012) "The Bodily Social Self: A Link Between Phenomenal and

Narrative Selfhood," *Review of Philosophy and Psychology*, 3: 125-144.

Gilbert, M. (1992) *On social facts*. Princeton: Princeton University Press.

Gilbert, M. (2002) "Collective guilt and collective guilt feelings," *Journal of Ethics*, 6: 115–

43.

Gilbert, M. (2014) "How we feel: understanding everyday collective emotion ascription," in

C. van Scheve & M. Salmela (eds.) *Collective emotions* (pp. 17-31) Oxford: Oxford

University Press.

Hatfield, E., Carpenter, M. & Rapson, R. L. (2014) "Emotional contagion as a precursor to

collective emotions," in C. van Scheve & M. Salmela (eds.) *Collective emotions* (pp.

108-122). Oxford: Oxford University Press.

Helm, B. 2010. *Love, friendship, and the self*. Oxford: Oxford University Press.

Hove, M.J., & Risen, J.L. (2009) "It's all in the timing: Interpersonal synchrony increases

affiliation," *Cognition*, 27(6): 949–960.

Huebner, B., Bruno, M., & Sarkissian, H. (2010) "What does the nation of China think about phenomenal states?," *Review of philosophy and psychology*, *1*(2), 225-243.

Jeannerod, M. (1997) *The cognitive neuroscience of action*. Oxford: Blackwell.

Jeannerod, M. (2006) *Motor cognition*. Oxford: Oxford University Press.

Kessler, T., & Hollbach, S. (2005) "Group-based emotions as determinants of ingroup identification", *Journal of Experimental Social Psychology,* 41: 677–85.

Knobe, J., & Prinz, J. (2008) "Intuitions about consciousness: Experimental studies," *Phenomenology and the cognitive sciences*, *7*(1), 67-83.

Knottnerus, J. D. (2014) "Religion, ritual and collective emotion," in C. van Scheve & M. Salmela (eds.) *Collective emotions* (pp. 312-325) Oxford: Oxford University Press.

Konzelmann Ziv, A. (2007) "Collective guilt revisited," *Dialectica*, 61: 467–93.

Kriegel, U. (2009) *Subjective consciousness: A self-representational theory*. Oxford: Oxford University Press.

Lakin, J. L., & Chartrand, T.L. (2003) "Using nonconscious behavioral mimicry to create affiliation and rapport," *Psychological Science* 14(4): 334–9.

Le Bon, G. (1895) *The crowd. A study of the popular mind*. London: Benn.

List, C. (2015) "What is it like to be a group agent?," Manuscript.

List, C., and P. Pettit (2011) *Group Agency: The Possibility, Design, and Status of Corporate Agents*. Oxford: Oxford University Press.

Melloni, L., Molina, C., Pena, M., Torres, D., Singer, W., & Rodriguez, E. (2007) "Synchronization of neural activity across cortical areas correlates with conscious perception," *The Journal of neuroscience*, 27(11), 2858-2865.

Miles, L.K., Nind, L.K., & Macrae, C.N. (2009) "The rhythm of rapport: interpersonal synchrony and social perception," *Journal of Experimental Social Psychology*, 45(3): 585–589.

Müller, B. C. N., Kühn, S., van Baaren, R. B., Dotsch, R., Brass, M., & Dijksterhuis, A. (2011) "Perspective taking eliminates differences in co-representation of out-group members' actions," *Experimental Brain Research*, 211, 423–428.

Oullier, O., de Guzman, G. C., Jantzen, K. J., Lagarde, J., & Kelso, J. A. S. (2008) "Social coordination dynamics: Measuring human bonding," *Social Neuroscience*, 3(2), 178–192.

Pettit, P. (2003) "Groups with minds of their own," in F. Schmitt (ed.), *Socializing metaphysics* (pp. 167-193), New York, NY: Rowan and Littlefield.

Pezzulo, G., Iodice, P., Ferraina, S., & Kessler, K. (2013) "Shared action spaces: a basis function framework for social re-calibration of sensorimotor representations supporting joint action," *Frontiers in Human Neuroscience, 7*.

Prinz, W. (1997) "Perception and action planning," *European Journal of Cognitive Psychology*, 9, 129–154.

Richardson, M. J., Marsh, K. L., Isenhower, R. W., Goodman, J. R. L., & Schmidt, R. C. (2007) "Rocking together: Dynamics of unintentional and intentional interpersonal coordination," *Human Movement Science*, 26, 867–891.

Rizzolatti, G., & Sinigaglia, C. (2008) *Mirrors in the brain: How our minds share actions and emotions*. Oxford: Oxford University Press.

Rovane, C. (2004) "What is an Agent?," *Synthese, 140*(1), 181-198.

Salmela, M. (2012) "Plural emotions," *Philosophical Explorations*, 15, 1: 1–14.

Schmid, H. B. (2014a) "Plural self-awareness," *Phenomenology and the cognitive sciences, 13*(1), 7-24.

Schmid, H. B. (2014b) "The feeling of being a group: corporate emotions and collective consciousness," in C. van Scheve & M. Salmela (eds.) *Collective emotions* (pp. 3-16) Oxford: Oxford University Press.

Schwitzgebel, E. (2015) "If materialism is true, the United States is probably conscious," *Philosophical Studies*, 172:1697–1721.

Smith, E. R. (1993) "Social identity and social emotions: Toward new conceptualizations of prejudice," in D. M. Mackie & D. L. Hamilton (Eds.), *Affect, cognition, and stereotyping: Interactive processes in group perception* (pp. 297–315). San Diego, CA: Academic Press.

Smith, E.R., C.R. Seger, & Mackie, D.M. (2007) "Can emotions be truly group level? Evidence regarding four conceptual criteria," *Journal of Personality and Social Psychology*, 93: 431–46.

Tollefsen, D. P. (2015) *Groups as Agents*. Cambridge: Polity Press.

Tomasello, M., & Carpenter, M. (2007) "Shared intentionality," *Developmental Science*, 10, 121–125.

Tononi, G. (2008) "Consciousness as integrated information: A provisional manifesto," *Biological Bulletin*, 215, 216–242.

Tononi, G. (2012) "Integrated information theory of consciousness: an updated account," *Archives Italiennes de Biologie*, 150(2-3), 56-90.

Tuomela, R. (2007) *The philosophy of sociality*. Oxford: Oxford University Press.

Tuomela, R. (2013) *Social Ontology: Collective Intentionality and Group Agents*. Oxford: Oxford University Press.

van Baaren, R.B., Holland, R.W., Kawakami, K., & Knippenberg, A.V. (2004) "Mimicry and prosocial behavior," *Psychological Science*, 15(1), 71–74.

van Baaren, R.B., L. Janssen, T.L. Chartrand, and A. Dijksterhuis. 2009. "Where is the love? The social aspects of mimicry," *Philosophical Transactions of the Royal Society of London. Series B, Biological Sciences* 364(1528): 2381–9.

van Ulzen, N. R., Lamoth, C. J., Daffertshofer, A., Semin, G. R., & Beek, P. J. (2008)

"Characteristics of instructed and uninstructed interpersonal coordination while walking side-by-side," *Neuroscience letters*, *432*(2), 88-93.

von Scheve, C. & Salmela, M. (Eds.) (2014) *Collective Emotions*. Oxford: Oxford University Press.

Wilkins, B. (2002) "Joint commitments", *Journal of Ethics*, 6: 145–55.

Wilson, M., & Knoblich, G. (2005) "The case for motor involvement in perceiving conspecifics," *Psychological Bulletin*, *131*, 460–473

Wiltermuth, S. S., & Heath, C. (2009) "Synchrony and cooperation," *Psychological Science*, 20, 1–5.

Yabar, Y., Johnston, L., Miles, L, & Peace, V. (2006) "Implicit Behavioral Mimicry: Investigating the Impact of Group Membership," *Journal of Nonverbal Behavior*, 30, 97–113.

Further Readings

Pacherie, E. (2013). How does it feel to act together? *Phenomenology and the Cognitive Sciences*, 13, 1: 25-46. (An exploration of the sense of agency in joint action.)

Salmela, M. (2012) Plural emotions. *Philosophical Explorations*, 15, 1: 1–14. (Proposes a typology of shared emotions according to their different degrees of collectivity.)

Schmid, H. B. (2014a) Plural self-awareness. *Phenomenology and the cognitive sciences*, *13*(1), 7-24. (A defense of the view that self-awareness can take a plural form).

Schwitzgebel, E. (2015) If materialism is true, the United States is probably conscious. *Philosophical Studies*, 172:1697–1721. (A discussion of the possibility of group consciousness.)

von Scheve, C. & Salmela, M. (Eds.) (2014) *Collective Emotions*. Oxford: Oxford University

Press. (A collection of papers exploring collective emotions from philosophical,

psychological and sociological perspectives.)

Biographical note

Elisabeth Pacherie is a senior researcher in philosophy at Institut Jean Nicod (CNRS UMR

8129, Institut d'Etude de la Cognition, École Normale Supérieure & PSL Research

University, Paris, France). Her main research interests are in the philosophy of mind and

action and she has written extensively on individual and collective agency.