abstracta Linguagem, Mente & Ação ISSN 1807-9792 Volume 7, Number 1, pp. 5–17, 2013

Social Ontology and Social Cognition*

Patrizio Lo Presti

Department of Philosophy and Cognitive Science, Lund University, Sweden
Patrizio.Lo_Presti@fil.lu.se

Abstract

The aim of this paper is to show that there is a reciprocal dependency relationship between social cognition and social ontology. It is argued that, on the one hand, the existence conditions of socially meaningful objects and of social groups are about sucjets' social cognitive processes and interactive patterns and, on the other hand, social cognitive processes and interactive patterns are modulated by socially meaningful objects and social groups. I proceed from a historically informed distinction between social ontologies – between what might be called constructivist and emergentist theories of social reality. I then distinguish three theories of social cognition, theory-theory, simulation theory, and interaction theory, and argue that the first distinction and the latter map onto each other. Finally I argue that the reciprocal dependency between social ontology and social cognition can be justifiably though of as causal in Di Paolo et. al.'s (2010) sense of "downward" or "circular" causation. It is concluded that the dependency between social ontology and social cognition pertain to both a methodological and a phenomenal level. First, research on social ontology depends on research on social cognition; and, secondly, social phenomena, involving socially meaningful objects and groups, influence social cognitive processes and interaction, which in turn influence social phenomena.

1 Introduction: The construction and emergence of the social

How can the contingent empirical fact that we live in a world of nations, cultures, religions, families, and other forms of social relationships that seemingly have causal efficacy on each individual's life, be accommodated with the reductionist realist paradigm prevalent today? As John Searle (2006, p. 13) put it, how, in a world constituted by particles in fields of force, can it be that some carbon based organism after 5 billion years of evolution have created a world of money, property, and government?

These questions form the core of the subject matter of social ontology, a discipline that since Searle's *The Construction of Social Reality* (1995) has surged analytical philosophy and given rise to lively debates. Social ontologists are concerned with the existence conditions of *social phenomena*. Social phenomena are phenomena involving subjects and social relations which 'give rise to' families, groups, organizations, nations, and so on, or units of agency with concomitant roles, rules, norms, and functions.

This paper focuses on the 'give rise to'-relation between subjects and social phenomena. To that end, as an introduction, it is informative to put the 'give rise to'-relation in historical perspective.

*This research was carried out as part of the NormCon project, funded by the European Science Foundation's EUROCORES program EuroUnderstanding, *Understanding and Misunderstanding: Cognition, Communication and Culture*.

Social ontology peaks a longstanding research program that is by and large neglected in todays analytical theorizing. Most analytical philosophers conceive of social phenomena as products of a certain kind. They usually proceed by analyzing the 'give rise to'-relation in terms of the mental states or speech acts of individuals. Social phenomena, in this tradition, are products of the agency of a multiplicity of individuals because, roughly, individuals either knowingly instantiate type-identical mental states or because individuals together declare that social relations or objects have a certain meaning. Thus social phenomena are *constructed*, either out of mental components – beliefs, intentions, desires – the contents of which are shared by individuals who believe that they so share (Tuomela 2003, 2007; Bratman 2009; Gilbert 2006) – or out of speech act components – declaratives, performatives – the utterance of which create social phenomena – families, organizations, nations, money, and so on – if people accept the declarations (Searle 1995, 2006, 2010). Social phenomena, involving socially meaningful objects and relationships, are in the contemporary eye, then, socially constructed. However, this focus on social constructivism in social ontology is itself only the tip of a historical iceberg.

By the turn of the last century there was another conception of the social reality. Emile Durkheim (1895/1972, p. 69) wrote, "Whenever any elements combine and, by the fact of their combination produce new phenomena, it is evident that these phenomena are not given in the elements" According to Durkheim, social and collective phenomena, society at large, are emergent phenomena. Society is a *product of activities* of people but it is no more reducible to individual mental states than life is reducible to mitosis. Georg Simmel had similar ideas about social phenomena when (1910/1971, p. 134) he wrote that people *play society*. That is, according to Simmel as I understand him, social phenomena emerge at the junction of social interactions, and society at large emerges from the social interactions of people who 'play' different roles. I will call this conception of social reality 'emergentist' on the basis that its proponents conceive of social reality as emergent from activity, rather than necessarily constructed intentionally out of speech acts or believed sharing of mental states in the constructivist sense of the previous paragraph.

The above short exercise in the history of social ontology serves to distinguish two alternative accounts of social reality: the *constructivist* and the *emergentist* accounts. Constructivism is the view that people together, through believed sharing of mental states – intentions, goals, commitments, and so on – or through declarative or performative speech acts, *create* social phenomena; social reality is relative to the mental states of individuals aimed at the construction of social relations and objects. This is the view found in much of today's analytically informed social ontology. We find this view in Tuomela's (2007) approach according to which, the existence conditions of social groups, for instance, involve that subjects believe about each other that they believe they are forming a social group. Thus people whose mental states are appropriately related are in position to *create* a social group, or a unit of activity, intentionality, and in general a 'we' of cognition and action. We find constructivism in Gilbert's (1989) semantics of the first person plural pronoun 'we', according to which the referent of 'we' is subjects who have expressed willingness to form a 'we' under conditions of common knowledge. According to Gilbert it is through expressions of appropriate kind under appropriate conditions that collectives, what she calls 'plural subjects', are created. Consider also Searle's (1995, 2010) view that something is a social object only if it is declared to have a function beyond its physical features. On Searle's account, the social functions of objects and persons are relative to the intentionality and recognition of individuals that objects have the functions in question; people must recognize, for instance, that "we accept that these pieces of paper count as money and give their owner the right to buy stuff", and the pieces of paper must be declared to have

that status, in order for the pieces of paper to count as money.[1] In contrast, on the emergentist view, social phenomena are acted out and emerge from social interactions, and are irreducible to mental state or speech act components. From this perspective there are no necessary conditions about acceptance of speech act contents, collective mental states, or believed sharing of mental states, for the emergence of social objects or phenomena. Rather, social reality is the product of patterns of interaction in the sense of being irreducible to individuals' activities or cognitive states and processes; social reality arises from interaction.

So far I have spoken loosely about 'social objects', 'social phenomena', and 'social units'. To clarify, I take social *objects* to be the set of particulars whose existence depends in the constructivist or emergentist sense on social interaction and cognition. Thus rabbit pelt, to use an example of Tuomela's, is not a social object, but when used under the right conditions, e. g., as medium of exchange in social interaction, then it is a social object. If patterns of social interaction recur in which a rabbit pelt is treated as an exchange medium without there being any point at which a rabbit pelt is declared to qualify as a medium of exchange or if there is no believed sharing of acceptance that a rabbit pelt is a medium of exchange, then we can say that the social object, the rabbit pelt as medium of exchange, is an *emergent* social object. In contrast, if declarations or believed sharing of mental states about rabbit pelts is what causes rabbit pelts to count as money, then we can say that the social object, the rabbit pelt as an medium of exchange, is *created* in the constructivist sense. Now, a social *unit* I take to involve similar genealogical processes as social objects, but 'units' or 'unities' relate to social relations rather than to objects. Thus, a family is a social unit, as is a subculture, and in general every instance of a social relation where subjects involved act or cognize as a 'we'. That the genealogy of social units is similar to that of social objects means that just like a rabbit pelt can become a medium of exchange through repeated patterns of social interaction or through declaration or sharing of mental states of acceptance or belief, so a family or a gang can be created through matrimony or vows of allegiance, or emergent in recurring interactions where people, as Simmel would have it, play their respective roles. Lastly, social *phenomena* I take to be phenomena involving social units and objects. Thus it is a social phenomenon that the euro is the medium of exchange in some European countries and that women usually do more household work than men, where money and households are social objects and Europe, and women and men as social groups, are social units. That women's salary is generally lower than men's is a social phenomenon, which if true, is a social fact.

In summary, there are two conceptions of the 'give rise to'-relation between subjects and social phenomena. On the one hand, one can conceive of social phenomena as grounded in declarations or agreement among individuals that certain objects, persons, and relationships are to have certain social statuses, or one can conceive of them as emergent from recurrent interactive patterns not necessarily involving such declarations and agreement.

In the next section, we will see that it is central for any attempt to understand the 'give rise to'-relation between subjects and social phenomena, that is, to understand theories in social ontology, to also understand what the theories presuppose with regard to underlying cognitive states and processes of subjects involved in social phenomena. To provide that understanding I now turn my focus on social cognition.

[1]Constructivism is a widely held approach in social ontology research, and recounting most or even many of its proponents requires too much space. But see, for instance, Gilbert (1990, 2000, 2009), Bratman (1992, 1993), Searle (2006, 2007), Schweikard and Pettit (2006), List and Pettit (2011), Tuomela (2002, 2003).

2 Cognitivism and non-cognitivism

Research on social cognition is research on how people understand others and their social surroundings. More specific, research in social cognition is concerned with cognitive processes that enable subjects to make sense of interaction in social arenas – such as churches, banks – and to act in accordance with how one is meant to act in social arenas. In this section, I will examine three theories of social cognition that can be divided into cognitivist and non-cognitivist theories. My aim here is not adjudication between, but clarification of, these theories with the aim to show how they map onto aforementioned distinctions between constructivism and emergentism in social ontology.

Since the effectuation of false-belief tests (Perner and Wimmer 1983), which are taken to show that children understand that mental states of others can deviate from their own once they have acquired folk-psychological concepts such as 'belief' and 'desire', what has been called theory-theory (TT) has drawn many adherents (Baron-Cohen 1995). According to TT, intersubjective understanding is backed up by mental state-attribution justified by recognition that in certain arenas or in certain interactions people usually have beliefs, intentions, desires, and so on, with a certain content. For instance, when someone reaches for the cookie jar he or she usually has a desire for cookies, a belief that there are cookies in the jar, and an intention to take a cookie from the jar. According to TT, understanding the other person, arriving at the meaning of his or her movement, essentially involves knowing something about cookies and cookie jars and from these premises inferring the other person's intention in terms of his or her beliefs and desires. Inferring intentions in terms of beliefs and desires presupposes having folk-psychological concepts signifying mental states. Since the process is described in terms of inferences, this theory of social cognition is that subjects form a theory about the other person's mental states. Baron Cohen (1995, pp. 3–4) writes, "it is hard for us to make sense of behavior in any other way than via the mentalistic … framework … [A]ttribution of mental states … is our natural way of understanding the social environment" (cf. Toby and Cosmides 1995).

In contrast to TT, and in the wake of neuroscientific research on brain areas functioning as so called 'mirroring' or 'resonance' systems (Gallese and Goldman 1998; Gallese 2005, 2007), a theory according to which social cognitive processes are simulative processes has been suggested. According to simulation theory (ST), people understand each other and their social world by means of running a simulation 'as if' oneself were the other or were in a similar social situation in which an observed other is situated. According to ST, social cognition is not underlain by subjects' mounting of interpretative or inferential processes with the other's behavior or environmental cues as premises, yielding as conclusion what the other means with his or her action or what socially significant environmental cues signify. Rather, "the state ascribed to the target is ascribed as a result of the attributor's instantiating, undergoing, or experiencing, that very state." (Goldman and Sripada 2005, p. 208). Thus, and although in ST there is the notion of agents ascribing mental states and meanings to others, the form of this ascription processes is subjunctive, 'as if', rather than in an inferential theory-like form (Goldman 2005b; Gallese 2005).

Criticism has been mounted against both TT and ST for their commitment to what has been called the *mentalistic assumption*. The mentalistic assumption is that, "mentalizing, or mindreading, underlies basically all social understanding and interaction" (Michael 2011, p. 561). The term 'mindreading' refers to the ascription of mental states involved in social understanding according to both TT and ST. The worries are that, first, if TT or ST were correct, then one should find in phenomenology a corresponding sensation of the theorizing

or simulative processes. But we seem not to be undergoing such phenomenological states when we understand others or our social world (Gallagher and Zahavi 2008, p. 176). And, secondly, even if one assumes that folk-psychological theories or simulative processes are implicit, it still seems that our conceptualizations of the processes underlying social cognition are misleading. Strictly speaking, "there is no neuronal subjunctive" (Gallagher 2007, p. 361). That is, if sub-personal processes of simulation or theorizing involving pretense, 'as if' states, instrumental for mindreading are to function as the explananda of social cognition, then we must conceive of those sub-personal processes as *pretending* and *using* information about the other or the social environment to form a model. But 'pretense' and 'use' are personal-level concepts. Therefore, TT and ST cannot be understood as true descriptions of social cognitive processes, neither at a personal explicit or sub-personal implicit level of description.

The alternative account of social cognition that critics propose is called interaction theory (IT). According to IT, mentalizing or mindreading, i.e., ascriptions or even simulations of mental states do not necessarily underlie social cognition. Rather than the third-person observational, theorizing, or simulative stances TT and ST ascribe to social cognizers, social cognition emerges according to IT in second-person interactions (Gallagher 2008b, pp. 164–5). It is interactive processes themselves, with others and social surroundings, that constitute social understanding and, furthermore, give rise to social meaning (p. 167; cf. De Jaegher et. al. 2010). It is not necessary that interactive processes be supplemented by inferences of simulations.

It should be clear why research on social cognition is important for research in social ontology. Since social ontology produces analyses of social facts and properties – analyses of the existence conditions of such things as money, nations, religion, and families – and since the analyses that are on the table analyze such facts and properties in terms of speech acts, sharing of mental states, or interaction, it is obvious that to understand how social facts and properties can exist it is necessary to understand how subjects can understand each others' mental states, speech act, and actions. Thus social cognitive processing characterizes at least one aspect of the 'give rise to'-relation between subjects and social phenomena.

Since my aim is to show that there is a reciprocal dependency relationship between social ontology and social cognition, both methodologically and phenomenally, I will now try to elucidate, in light of preceding two sections, how questions asked in the two domains map onto each other. In the following sections, I will argue that not only are questions in the two domains linked, but also social phenomena and social cognitive processes themselves exert influence on each other.

Without trying to settle the issue between theory-theory, simulation-theory, and interaction-theory, I suggest that one can distinguish two main approaches to social cognition: *cognitivism* and *non-cognitivism*. Cognitivist approaches to social cognition are characterized by the mentalistic assumption, that is, by their commitment to the claim that social understanding necessarily involves ascription of mental states to others. Non-cognitivist approaches to social cognition are characterized, negatively, by rejection of the mentalistic assumption and, positively, by the claim that perceptual or interactive processes are sufficient for social understanding. Here perceptual and interactive processes are to be understood as *inherently* sense-making. By inherently sense making I mean that it is not necessary that the processes be supplemented by cognitive processes such as inferences or simulations in order for social understanding to be enabled.

From this distinction we can draw two clarifying conclusions regarding commitments of theories in social ontology. First, if communication necessarily involves understanding the meaning, intentions, and communicative intentions of speakers, and if sharing of mental states

necessarily involves mental state-ascriptions as a result of simulation or inference, then constructivist accounts of social reality presupposes a cognitivist account of social cognition. Constructivist accounts of social reality presuppose a cognitivist account of social cognition since Searle (1995, 2006, 2010), whose social ontology is presently one of the most influential, bases his theory on declarative speech acts. And Searle clearly states (1983, p. 166) that, "what one communicates is the content of one's representations", implying that to understand the speech acts with which social objects and units are constructed one must understand and ascribe mental states to speakers. Furthermore, Tuomela, whose social ontology is one of the more prominent amongst those based on believed sharing of mental states (2003, 2007), explicitly states (2007, p. 188) that only collective acceptance that an object has a social meaning and is meant to be used in a certain way can account for the object having that meaning. Second, if it is sufficient for subjects to engage in social interaction that they have intentions the contents of which refer to others, but does not necessarily entail ascription, from theorizing or simulation, of mental states to others, then emergentist accounts of social reality presuppose a non-cognitivist account of social cognition. Emergentist accounts of social reality presuppose a non-cognitivist account of social cognition since Durkheim and Simmel, who I take to be the pioneers of emergentist social ontology (cf. Tollefsen 2002; Gilbert 1989; Greenwood 2003), denied what is now called the mentalistic assumption and claimed that it is people's interactions that constitute social entities. For instance, Simmel (1908/1971, p. 8) wrote, "consciousness of the abstract principle that he is forming society is not present in the individual", suggesting that there need be no (ascription of) beliefs or communicative intentions involved in the emergence of social phenomena.

It is fair to say that the unearthing in this section of the presuppositions of theories in social ontology of theories in social cognition suggests a straightforward mapping of questions asked in the two fields. That is, a constructivist social ontology presupposes that a cognitivist approach to social cognition is supported, whereas an emergentist approach to social ontology does not. The emergentist approach to social ontology is supported by non-cognitivist theories of social cognition. Therefore, constructivist and emergentist social ontology hinge on the plausibility of cognitivist and non-cognitivist theories of social cognition (although a precise forecast for respective social ontologies' ability to handle falsification of theories of social cognition on which they depend cannot at this point be given).

3 Downward causation

The mapping of the socio-cognitive onto the socio-ontological does not simply entail that research on social ontology is aided by research on social cognition. It also entails the reverse relation, that research on social cognition is facilitated by research on social ontology. Furthermore, I will argue in this section that social cognition substantively, not as a research object alone, is facilitated by cognizers being 'situated' in a social reality in a sense to be clarified. It is desirable to first of all investigate the nature of the relation holding between social objects and units and social cognition.

Ezequiel A. Di Paolo and colleagues (2010) use the notion of 'circular' or 'downward' causation: a causal relation holding between emergent entities and low-level processes that give rise to those entities. An emergent entity is described as one "whose characteristics are enabled but not fully determined by the properties of the component processes" (p. 40). This emergent entity in turn "introduces ... modulations to the boundary conditions of the lower-level processes that give rise to it" (p. 41). Remember that social phenomena emerge from social cognitive or interactive processes (speech acts, shared mental states, or socially directed

action, depending on what ontology of social reality is preferred). Now, if there is a downward or circular causal relationship between social cognitive processes and social phenomena, that would mean that social cognitive and interactive processes give rise to social phenomena which in turn influence the social cognitive and interactive processes. That is, if social objects and units causally influence people's understanding of each other and their social environments, then that might be understood as social phenomena having downward causal efficacy with regard to the processes of social understanding (or misunderstanding) – the processes from which social phenomena emerge. I will soon illustrate the possibility of the downward, circular relation with two examples. Empirical findings will also be adhered to. But first, let me emphasize that of primary interest for present purposes is vindicating that a downward, circular influence between, on the one hand, social cognitive states and processes and social interactions, and, on the other, social objects and units involved in social phenomena, does obtain. The nature of this relationship is of secondary interest. I will henceforth leave undecided whether this relation is causal in nature and focus instead on the plausibility of the obtaining of the relation.

To illustrate the possibility of downward or circular influence between emergent social phenomena and social cognitive and interactive processes, consider the following example. You're in church with lots of other people filling the rows. The organ is playing and along the aisle two persons are walking solemnly. They stop when they reach the altar and repeat sentences pronounced by the priest. This situation makes sense if you recognize that you are at a wedding. But also, you recognize, or understand, that you are at a wedding by focusing on the social objects and other agents' behavior in this situation. For instance, the altar has a certain meaning, e. g., it is treated as a place where wedding ceremonies, baptisms, and so on, take place. Other objects in the situation have other socially relevant meanings, e. g., the arrangement of benches, peoples' clothing, and so on. Importantly, the set of social objects, units and people in the situation seems to play a central explanatory role in accounting for your, as cognizer, grasping of the social meaning of the situation. But the social meaning of the objects, units, and people is, reflexively, emergent from social cognitive and interactive processes. That is, on the one hand, social phenomena, weddings for instance, emerge from social sense-making and interaction, while, on the other hand, the social phenomen also determine social sense-making and interaction. Social cognition and interaction partly determines the constitution of social reality and the constitution of social reality partly determine social cognitive state and process and social interaction.

Consider an altered version of the wedding example. Suppose that you're giving a lecture at a conference. As you're explaining one of your slides, two persons solemnly dressed as if on a wedding stride towards you between the conference attenders. Something in this situation is terribly wrong, and the obvious reason is that there has been a *misunderstanding*. Why does the appearance of bride and groom *not* make sense? The social environment does match the social interaction; conference halls are standardly not *meant* to house matrimonies, conferences have emerged as gatherings for exchanges of ideas, not for weddings.

The import of these examples is this: objects and persons are *meant* to function, to be used, and to act in certain ways. The existence condition for these functions and roles – these social meanings, the very structure of social environments – is, we have seen, the occurrence of appropriate social cognitive states, processes and interactions of the people involved – their communication, beliefs, or repeated interactions depending on preferred social ontology. What the examples show is that the emergent social objects, roles, functions, and units enable social understanding (or misunderstanding). Understanding and misunderstanding of others and socially relevant objects and events are social cognitive states. Therefore, we can conclude that

social reality, emerging from social cognitive processes and interactions, influence social cognitive processes and interactions and produce states of social understanding (or misunderstanding). Thus social cognitive states and processes and social phenomena circularly influence and perpetuate each other; they form a social circuit, a circular system of reflexive determination.

In the final section before concluding, I will reconnect conclusions drawn about the circular relationship between social cognitive and interactive processes and social phenomena to orthodox contemporary social ontology. The aim will be to find support for my argumentation in some prevalent theories of social ontology. But first, lets summarize our central findings. Two conclusions can be drawn at this point.

First, social cognitive and interactive processes involving objects and persons with social meanings, emergent from social cognitive and interactive processes, can produce social understanding and misunderstanding; i.e., influence social cognition and interaction. Without going into too much detail, this conclusion presupposes that social cognitive processes have access to perceptual, proprioceptive, affective, and other subsystems. This is because identification of social objects and social statuses of others requires access to cues indicating such social meaning – e. g., wedding rings, police badges, uniforms. Also, interaction in accordance with how one is socially meant to interact requires proprioceptive afferent and efferent signals in execution and evaluation of appropriate action. Similarly, affective states, e. g., disapprobation and approval, likely play a role in and are indicative of social understanding and misunderstanding. This does not mean that whenever social understanding or misunderstanding occurs there is some perception of social objects, or proprioceptive or affective state to which explanations of the former necessarily refer. It means that the occurrence or non-occurrence of the latter influence the production of the former. In the next section, I will exemplify how perception can be recruited in social cognition to achieve social understanding or misunderstanding.

Second, the examples considered can be multiplied, and what they show be generalized. Thus take any situation involving social objects or persons with social meaning and shift between introducing and removing them. The prediction is that subjects in the situations imagined will be further removed from or closer to being able to make sense of others and their social surroundings. Since virtually all agency and cognition is agency and cognition situated in a socially meaningful world, questions posed and answered with regard to social agency and cognition and social ontology seem inexorably linked. So there is not only a *methodological* advantage for research in social ontology to be sensitive to research in social cognition, and vice versa, it is also predicted that, *phenomenally*, social cognition and action is sensitive to the ontology of the social environments in which they occur.

I hope to have clarified a sense in which social reality, on the one hand, and social cognition and agency, on the other, partly codetermine each other in a circular manner.

4 Social cognition and social interaction

I said above that the conclusion that social reality influences social cognitive and interactive processes presupposes perceptual access to socially meaningful objects, events, and persons. In this final section, I want to pursue the implications of this presupposition. It will appear that there is support in contemporary orthodox social ontology of my claim that perception of social objects influences social understanding and social interaction.

Searle (1995, p. 85) writes, “we have status indicators in the form of marriage certificates, wedding rings, and title deeds” which serve ‘epistemic functions’ (p. 120). For Searle, social reality is an epistemically objective, even if ontologically subjective, reality (pp. 8–12). This means that whereas some entities, for instance stones and trees, are ontologically objective in

the sense that their existence is independent of what anyone thinks about such entities, other entities, for instance dollar bills and marriage, depend for their existence on people's assigning and recognizing a social meaning of pieces of paper and social relationships. The 'epistemic functions' of some objects, for instance wedding rings and title deeds, can be thought of as *indicating* what role or function an object or person carries. This is an interesting line of thought connecting to my argument that socially meaningful objects and persons have downward influence on cognition and agency. Because, if, as Searle claims, what meanings persons and objects are bestowed with are indicated, then perceptual access to such indicators certainly implies access to information about social meaning. To conclude that social entities have an influence on social understanding is close to home.

Consider the example of being Secretary General of the U.N. For Searle, having this status *means* that the person has a range of actions open for him or her – a set of 'powers' (p. 106). Interestingly, if social meaning – or social statuses and functions, in Searle's terminology – is indicated by objects so that subjects are epistemically justified in identifying social meaning when perceiving the indicating objects, and if social meanings entail an appropriate way of interacting, then subjects with perceptual access to indicators are in position to make sense of others and their social surroundings. Searle seems never to have seen or have been interested in this implication.

But is it justified to claim that social objects that exert influence, through perception, on social cognitive and interactive processes? Outside of research in social ontology, empirical support for that claim can be found. Shaun Gallagher (2008a) argues that perception of socially meaningful objects is 'smart'. By smart Gallagher means that perception need not be supplemented by other cognitive processes for an observer to make sense of perceptual input (pp. 539–40). Perception of socially relevant objects is 'direct', according to Gallagher, in the sense that there need not be inferential steps or simulative processes premised on perceptual input; perceptual input is in itself sufficiently informative for recognition of something as a car, rather than recognition of something as a car being an inference from perceptual input of metallic mass in a certain shape.

Gallagher have developed the direct perception account, introduced by J. J. Gibson, in the last decade (Gallagher 2001, 2004, 2007, 2008a, 2008b). Although answering how precisely perception can be direct is not a *sine qua non* for my argument to go through, I will give a review of experiments carried out by Marcel (1992), reported by Gallagher and Marcel (1999), about how focus on, and agency in, socially significant situations enhance cognition and agency. Reviewing the experiments is only a way of showing that socially significant objects and events can influence social cognition through perception, and thus that the downward or circular relation between social reality and social cognition and interaction is empirically supported.

Marcel (1992) distinguished three levels of intention formation: intentions in *abstract decontextualized*, in *pragmatically contextualized*, and in *socially contextualized* agency. Abstract decontextualized agency is "detached from what would ordinarily be considered a significant context" (Gallagher and Marcel 1999, p. 9), for instance handling a cylinder shaped object in an experimental setting. Pragmatically contextualized agency is "performed in the course of a natural activity whose purpose arises from personal projects and concerns" (*ibid.*), for instance dishing a teacup. Socially contextualized agency "has a meaning defined by cultural categorizations … and represent states of the self in regard to others" (*ibid.*), for instance serving friends cups of tea at a tea party. What Marcel found was that patients suffering from ideomotor apraxia, that is, persons with difficulty in executing intentions in body movement, had near normal abilities in socially contextualized agency, whereas they had great difficulties

in abstractly decontextualized settings. This led Gallagher and Marcel to conclude that when subjects' intentions are guided by focus on socially significant objects and events involving their social relations to other people their cognitive and agentive performance is enhanced (p. 12; cf. Leontiev and Zaporozhet 1960). Hence there is experimental data in support of the claim that socially meaningful objects and persons influence social cognition and interaction. Since most, if not all, theories in social ontology agree that social objects and meaning emerge from or are constructed in social cognitive and interactive processes, we can conclude that there is empirical support for the claim that there is downward or circular influence between socially meaningful objects and persons, on the one hand, and the social cognitive and interactive processes from which social meaning emerge, on the other.

Reconsidering Searle's notion of social statuses being indicated, it seems we have found in experiments on social cognition a basis for the conclusion of my argument. That is, the social ontology of situations in which people act and cognize influence social cognition and interaction, while social cognition and interaction influence the social ontology of situations in which people act and cognize.

5 Conclusions

Social ontology is about the existence conditions of social phenomena; phenomena involving two or more subjects, their relations and interactions, and often socially meaningful objects involved in interaction. Social cognition is about the sense-making processes, interactive, perceptual, simulative, or theory-like, that enable subjects to understand social phenomena.

In the first sections of this paper, we have seen that social reality is given rise to by social cognitive and interactive processes. The 'give rise to'-relation from such processes to social phenomena can be characterized in several ways. Social objects or units involved in social phenomena can be *created* through speech acts or believed sharing of mental states accepted by a group as the group's goals, beliefs, and so on. Social phenomena can also *emerge* from repeated social interactions in absence of any declarative or performative speech-acts, or believed shared acceptances of goals, beliefs, and so on. The former, constructivist, sense implies some ascription of mental states among people involved in the creation, what in social cognition is called 'mindreading', whereas the latter implies a history of recurrent social interactions not necessarily involving mindreading. The upshot of these implications is methodological: they suggest that research in the domains of social ontology and social cognition is inexorably linked – theoretical presuppositions in one domain are depends on results in the other. A prognosis and desideratum of the state of debate in social ontology and social cognition respectively is, therefore, that only an account that consistently and coherently integrates creation and understanding of social meaning of objects and persons will and should lead the way for future research.

In the latter sections, it has become clear that beyond the desideratum that researchers on social ontology and cognition coordinate efforts, and beyond the prediction that such coordination is fruitful for future research, there is a real reciprocal dependency between social cognitive and interactive processes, on the one hand, and socially meaningful objects and persons, on the other. Thus, a second prognosis and desideratum provided by this paper is that only accounts of social ontology and cognition providing explanation and prediction of social phenomena's and social cognitive processes' reflexive influence on each other will and should lead the way for future research.

In conclusion, whether we analyze the 'give rise to'-relation from subjects to social phenomena in constructivist or emergentist terms, the proposition that I have argued in favor of

suggests itself: social reality is partly determined by underlying social cognitive and interactive processes, and social cognitive and interactive processes are in turn partly determined by the structure of social reality. The result is that the constitution of social reality and the progression of social understanding and interaction can be understood as co-dependent and co-determining.

Acknowledgements: I would like to thank two anonymous referees at Abstracta for crucial insights and criticisms.

References

Baron-Cohen, S. (1995) *Mindblindness: An essay on autism and theory of mind*, Cambridge: MIT Press.

Bratman, M. (1992) 'Shared Cooperative Activity', *The Philosophical Review* 101, 327–341.

Bratman, M. (1993) 'Shared Intentions', *Ethics* 104, 97–113.

Bratman, M. (1999) *Faces of Intention: Selected Essays on Intention and Agency*, Cambridge: Cambridge University Press.

Bratman, M. (2009) 'Modest sociality and the distinctiveness of intention', *Philosophical Studies* 144: 149–165.

Butterfill, S. (in press) 'Interacting mindreaders', *Philosophical Studies*.

Davidson, D. (2001) 'Agency', In D. Davidson (ed.) *Essays on Actions and Events*, Oxford: Oxford University Press.

De Jaegher, H. (2009) 'Social understanding through direct perception? Yes, by interacting', *Consciousness and Cognition* 18, 535–542.

De Jaegher, H., Di Paolo, E.A. & Gallagher, S. (2010) 'Can social interaction constitute social cognition?', *Trends in Cognitive Science* 14, 441–447.

Di Paolo, E.A., Rohde, M. & De Jaegher, H. (2010) 'Horizons for the Enactive Mind: Values, Social Interaction, and Play', In J. Stewart, O. Gapenne and E.A. Di Paolo (eds.) *Enaction: Toward a New Paradigm for Cognitive Science*, Cambridge: MIT Press.

Durkheim, E. (1950) 'Les règles de la methode sociologique', In A. Giddens (ed.) *Emile Durkheim: Selected Writings* (1972), New York: Cambridge University Press.

Gallagher, S. (2001) 'The practice of mind: theory, simulation or primary interaction?', *Journal of Consciousness Studies* 8, 83–108.

Gallagher, S. (2004) 'Situational Understanding: A Gurwitschian Critique of Theory of Mind', In L. Embree (ed.) *Gurwitsch's Relevancy for Cognitive Science*, Dodrecht: Springer.

Gallagher, S. (2007) 'Simulation trouble', *Social Neuroscience* 2, 353–365.

Gallagher, S. (2008a) 'Direct perception in the intersubjective context', *Consciousness and Cognition* 17, 535–543.

Gallagher, S. (2008b) 'Inference or interaction: social cognition without precursors', *Philosophical Explorations* 11, 163–174.

Gallagher, S. & Marcel, A.J. (1999) 'The Self in Contextualized Action', *Journal of Consciousness Studies* 6, 4–30.

Gallagher, S. & Zahavi, D. (2008) *The phenomenological mind*, London: Routledge.

Gallese, V. (2005) "Being like me': Self-other identity, mirror neurons and empathy', In S. Hurley and N. Chater (eds.), *Perspectives on imitation* vol. 1, Cambridge: MIT Press.

Gallese, V. (2007) 'Before and below 'theory of mind': Embodied simulation and the neural correlates of social cognition', *Philosophical Transactions of the Royal Society B* 362, 659–669.

Gallese, V. & Goldman, A.I. (1998) 'Mirror neurons and the simulation theory of mind-reading', *Trends in Cognitive Science* 2, 493–501.

Greenwood, J.D. (2003) 'Social Facts, Social Groups and Social Explanation', *Nôus* 37, 93–112.

Goldman, A.I. (2005) 'Imitation, Mind Reading, and Simulation', In S. Hurley and N. Chater (eds.), *Perspectives on imitation* vol. 2, Cambridge: MIT Press.

Goldman, A.I. and Sripada, C.S. (2005) 'Simulationist models of face-based emotion recognition', *Cognition* 94, 193–213.

Grice, H.P. (1989) *Studies in the Way of Words*, Harvard: Harvard University Press.

Gilbert, M. (1989) *On Social Facts*, Princeton: Princeton University Press.

Gilbert, M. (1990) 'Walking Together: A Paradigmatic Social Phenomenon', *Midwest Studies in Philosophy* 15: 1–14.

Gilbert, M. (2006) 'Rationality in Collective Action', *Philosophy of the Social Sciences* 36: 3–17.

Gilbert, M. (2009) 'Shared intention and personal intentions', *Philosophical Studies* 144: 167–187.

Lavelle, J.S. (2012) 'Theory-Theory and the Direct Perception of Mental States', *Review of Philosophy and Psychology* 3, 213–230.

Leontiev, A.N. & Zaporozhet, A.V. (1960) *Recovery of Hand Function*, London: Pergamon.

List, C. & Petitt, P. (2011) *Group Agency: the possibility, design, and status of corporate agents*, Oxford: Oxford University Press.

Marcel, A.J. (1992) 'The personal level in cognitive rehabilitation', In N. Von Steinbüchel, E. Pöppel and D. Cramon (eds.) *Neurophysiological Rehabilitation*, Berlin: Springer.

Michael, J. (2011) 'Interactionism and Mindreading', *Review of Philosophy and Psychology* 2, 559–578.

Miller, K. & Tuomela, R. (1988) 'We-Intentions', *Philosophical Studies* 53, 367–389.

Scweikard, D. & Pettit, P. (2006) 'Joint Actions and Group Agents', *Philosophy of the Social Sciences* 36, 18–39.

Searle, J. (1969) *A Theory of Speech Acts: An Essay in the Philosophy of Language*, Cambridge: Cambridge University Press.

Searle, J. (1983) *Intentionality: An Essay in the Philosophy of Mind*, Cambridge: Cambridge University Press.

Searle, J. (1995) *The Construction of Social Reality*, New York: The Free Press.

Searle, J. (2003) 'Social Ontology and Political Power', In F.F. Schmitt (ed.), *Socializing Metaphysics: The Nature of Social Reality*, Oxford: Rowman & Littlefield.

Searle, J. (2006) 'Social Ontology: Some Basic Principles', *Anthropological Theory* 6, 12–29.

Searle, J. (2010) *Making The Social World: The Structure of Human Civilization*, Oxford: Oxford University Press.

Simmel, G. (1908) 'Exkurs über das Problem: Wie ist Gesellschaft möglich?', In D.N. Levine (ed.) *George Simmel: On individuality and social forms* (1971), Chicago: Chicago University Press.

Toby, J. & Cosmides, L. (1995) 'Foreword', In S. Baron-Cohen (author) *Mindblindness: An essay on autism and theory of mind*, Cambridge: MIT Press.

Tollefsen, D.P. (2002) 'Collective Intentionality and the Social Sciences', *Philosophy of the Social Sciences* 32, 25–50.

Tuomela, R. (2002) *The Philosophy of Social Practives: A Collective Acceptance View*, Cambridge: Cambridge University Press.

Tuomela, R. (2003) 'Collective Acceptance, Social Institutions, and Social Reality', *American Journal of Economics and Sociology* 62, 123–165.

Tuomela, R. (2005) 'We-Intentions Revisited', *Philosophical Studies* 125, 327–369.

Tuomela, R. (2006) 'Joint Intention, We-Mode and I-Mode', *Midwest Studies in Philosophy* 30, 35–58.

Tuomela, R. (2007) *The Philosophy of Sociality: The Shared Point of View*, Oxford: Oxford University Press.

Tuomela, R. & M. Tuomela (2005) 'Cooperation and trust in group context', *Mind & Society* 4, 49–84.

Wimmer, H. & Perner, J. (1983) 'Beliefs about beliefs: Representation and constraining function of wrong beliefs in young children's understanding of deception', *Cognition* 13, 103–128.