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Title

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Journal

Proceedings of the Annual Meeting of the Cognitive Science Society, 43(43)

ISSN

1069-7977

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Publication Date

2021

Peer reviewed

The Role of Mindreading in a Pluralist Framework of Social Cognition

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Abstract

How do we manage to understand the minds of others and usefully interact with them? In the last decade, the debate on these issues has developed from unitary to pluralist approaches. According to the latter, we make use of multiple socio-cognitive strategies when predicting, interpreting, and reacting to the behavior of others. This means a departure from the view of mindreading as the main strategy underlying social cognition. In this paper, we address the question of the controversial status of mindreading within such a pluralist framework. Contrary to many other accounts, we ascribe mindreading an equal status in a pluralist framework. Mindreading is required for a variety of central situations in life and importantly underlies the way in which we understand other people. Mindreading is also no less reliable than alternative strategies; reliability is not so much a matter of different competing socio-cognitive strategies, but rather of their complementary use.

Keywords: Pluralism; Social Understanding; Mindreading; Theory Theory, Simulation Theory, Interaction Theory; Direct Perception; Behavioral Scripts; Stereotypes

1. Introduction

From cradle to grave, successful interaction with others forms a fundamental part of human life. As newborns, our survival substantially depends on the interaction with others, and even after that it remains a critical factor for our striving and thriving as adults. Researchers in social cognition have been interested in the question of what this ability consists in: how does human social cognition work? How can humans usefully predict, interpret, and react to the behavior of others?

Broadly construed, the debate on social cognition was long stuck in the dispute between *Theory Theory* (TT) (e.g. Baron-Cohen, 1995; Gopnik & Wellman, 1992) and *Simulation Theory* (ST) (e.g. Goldman, 2006), or combinations thereof. Although these accounts disagreed on how exactly the attribution of mental states is implemented, they all agreed that social cognition is based on mindreading, i.e. the attribution of non-observable mental states to others. Thus, the debate was about whether mindreading was theory or simulation based, or both. That social cognition depended centrally on mindreading was not questioned. A key development took place in the literature with the introduction of *Interactionist Accounts* (IT) which criticized mindreading-

based approaches on the basis of an unnecessary over-intellectualization of social cognition (Gallagher, 2001; Gallagher & Hutto, 2008). Instead they argued for a more basic interaction-based approach.¹

TT, ST, and IT are, originally, all unitary theories – this means that they propose a single strategy underlying social cognition. Even if they allow for the general possibility of multiple strategies to be employed in social cognition, only one of them is supposed to function as the default or basis underlying the others. In recent years, however, there has been a move away from such unitary theories towards *Pluralist Accounts* (Andrews, 2012; Fiebich, 2015; Fiebich et al., 2017; Newen, 2015; Spaulding, 2018). That is, IT was right in arguing that not all our social cognition depends on mindreading, we have alternative, more basic and interactive means of understanding others. However, it is not the case that we simply replace mindreading as the golden standard of social cognition by means of another socio-cognitive strategy. According to pluralist approaches, there is no main strategy underlying social cognition, instead we make use of a variety of strategies to understand others. Consequently, mindreading *along with* more direct and interactive processes would be deployed in social cognition.

While this general pluralist direction in the recent debate is promising, we want to investigate and question the status of mindreading within current pluralist approaches to social cognition. In part due to a remaining influence of IT, many pluralist accounts argue that mindreading only has a subordinate status within social cognition (e.g. Fiebich et al., 2017). In this paper, we aim to establish the central status that mindreading has in social cognition, even if we acknowledge that alternative strategies also play an important role. Therefore, we argue for an equal status of mindreading within a pluralistic framework, i.e. where mindreading is treated as a socio-cognitive strategy on par with others. The point is not to show the superiority of theory-based inference or simulation. However, we question the understanding of mindreading as an error-prone last straw that we rely on only in those rare cases when allegedly more reliable alternatives are not available.

The paper proceeds as follows: in Section 2, we will introduce pluralism and some of the main proponents of this view, highlighting why they allocate only a subordinate

¹ For a more detailed description of TT, ST, and IT including their advantages and disadvantages see Coninx & Newen (2018).

status to mindreading. In contrast to this, we will argue in Section 3 that mindreading is a socio-cognitive strategy employed in various central situations of human life that proves more reliable than many defenders of pluralism so far think. Note that our aim is not to defend pluralism per se against more unitary accounts of social cognition, but rather to shed light on the controversial status of mindreading within such a pluralist framework. Section 4 summarizes our results.

2. The Plurality of Socio-Cognitive Strategies

The basic idea of pluralism concerning social cognition is that there is no one fundamental strategy of social cognition, but that humans use a variety of strategies depending on what serves the context best (e.g. Fiebich, 2015). In the following, we are about to introduce the four most commonly discussed socio-cognitive strategies that pluralist accounts aim to incorporate (without aiming for completeness): i) *theory-based inference-making*, ii) *simulation*, iii) *direct perception*, and iv) *rule-following*. Theory-based inference making and simulation count as mindreading strategies as they rely on the attribution of mental states by indirect means, i.e. theorizing or simulation others' minds. Direct perception is also employed for the attribution of mental states but without the intermediate step of theorizing or simulating involved in mindreading. Rule following refers to those kinds of strategies that enable us to successfully interact with others without having to make recourse to mental states at all.

First, according to defenders of TT, mindreading relies on the deployment of a folk psychological theory, i.e. a coherent system of law-like assumptions, used for systematic inferences about the mental states of others. This ability is supposed to depend either on a dynamic process of prediction, learning, and modification (Gopnik & Wellman, 1992) or the maturing of an innate module (Baron-Cohen, 1995). These accounts disagree with respect to the acquirement of mindreading abilities, but define mindreading in terms of *theory-based inference-making*. For example, when we watch another person on the train take out a book and then desperately rummage in their bag and feel their pockets while their reading glasses are set on their head, we can ascribe to the person the desire to find their glasses and unawareness about the fact that their glasses are on their head. We can do so based on a set of law-like assumptions of how people in general behave and what their mental states are when they behave a certain way.

Second, according to defenders of ST, we attribute non-observable mental states to other by running *simulations*. That is, we put ourselves 'into the shoes' of another person and simulate the beliefs, desires, intentions, or emotions that we would have or experience if we would be the respective person in the respective situation (Goldman, 2006). This includes the projection of oneself into the other's position as well as certain adjustments taking into account differences between oneself and the respective other. For example, when seeing another person giving a talk in front of a great audience,

we might infer their emotional state (e.g. anxiety) by imagining how we would feel if we would be in their place while we might also take into account that the other is particularly nervous as they wish to be admired by one of the participants in the audience. Both TT and ST can be considered different strategies of mindreading. As our concern in this paper is defending the role of mindreading, we will not always distinguish between theory-based inferences and simulations in what follows and speak instead of strategies of mindreading in general.

Third, defenders of IT (Gallagher, 2001; Gallagher & Hutto, 2008) have criticized TT and ST on the basis that demanding strategies of mindreading are not necessary for a vast majority of social cognition. Instead they argue for a more basic interaction-based understanding of others that allows for smart perception. That is, in many social situations we do not need to infer or simulate the mental states of others, but are able to *directly perceive* them based on social cues such as facial expressions, body posture, or gestures (Gallagher, 2008; Zahavi, 2011). For example, when jointly carrying a table, we might be able to directly perceive the intention of the other person concerning the direction in which they are turning simply by means of their body posture or eye gaze. Similarly, it is suggested that we can directly perceive emotional mental states, such as anger. We do not need to engage in theory-based inferences or run simulations when engaging with an angry person in order to determine their mental state, we can directly see that they are angry.

Fourth, it has been argued that we can predict the behavior of others solely based on our knowledge that people follow certain social rules and show behavioral regularities. In other words, we can interact with others on the bases of *rule following* without attributing any mental states. Social interaction is often significantly shaped by stereotypes and social biases about how members of certain groups act (Andrews, 2012; Spaulding, 2018), by our expectations concerning the behavioral routines of an individual (Fiebich & Coltheart, 2015; Newen, 2015), or the scripts applying to standardized interactions in social situations (Coninx & Newen, 2018; Newen, 2015). For example, I can make predictions about the driving style of taxi drivers based on stereotypes I have about people of this profession; or about a friend's behavior based on my knowledge of their habits. Further, there are certain behavioral rules when one gets on the bus, such as showing the ticket to the driver, which allow for predicting the behavior of others and navigating this context without needing to attribute mental states.

As it stands, the pluralistic agenda seems promising. We have moved away from the idea that there is a single basis for social cognition and instead are faced with a variety of strategies which can be employed flexibly. Mindreading, that is attributing mental states to others via either simulation or theorizing, is just one option. Endorsing a pluralist framework, however, raises the question of what the status of mindreading is within such a framework.

While little has been written explicitly on how different strategies relate to each other (see Westra, 2018 for an

exception), it seems generally assumed that the different strategies should be seen as alternative means of social cognition, where mindreading plays only a subordinate role. The deemphasizing of mindreading in comparison to other strategies seems motivated in reference to three interrelated criteria. *Quantitative criterion*: mindreading is a little used strategy in comparison to alternatives (e.g. Gallagher & Hutto, 2008). *Centrality criterion*: mindreading is not employed in central situations of social interaction, but occurs only in the periphery of human life (e.g. Fiebich et al., 2017). *Reliability criterion*: mindreading is less reliable than alternative strategies (e.g. Andrews, 2017). In other words, while mindreading is a strategy used in social cognition, it is rarely employed, and if so, of minor relevance to understand central situations of social understanding and more error-prone than alternative socio-cognitive strategies.

It is this marginalization of mindreading within the pluralist framework which we object to in this paper. It should be noted, however, that this will not be a point about the frequency with which mindreading is used. We consider the discussion of the quantitative criterion as little fruitful given that we lack a clear standard on how to measure the frequency with which particular socio-cognitive strategies are used. Even if we did, it would require an in-depth comprehensive empirical investigation to determine the use of each concrete strategy. Further, even if it shows that we use mindreading less frequently than some of the alternative strategies, this does not imply that they are less central or reliable which we consider more relevant for the status to be ascribed to a socio-cognitive strategy in a pluralistic framework. In what follows we will therefore focus on the centrality criterion and the reliability criterion in order to highlight the equal status that mindreading should be allocated within the pluralist framework.

3. The Controversial Status of Mindreading

Our argument has the following two strands. First, we show that mindreading is not merely used in extraordinary circumstances but in various central situations of our social life that direct perception and rule following cannot account for (*centrality criterion*). Second, we argue that mindreading constitutes a socio-cognitive strategy that is at least as reliable as suggested alternatives (*reliability criterion*).

3.1. The Centrality of Mindreading

It is a common argument given by defenders of pluralist accounts that mindreading is only used in very unusual circumstances where alternative and less demanding strategies cannot be employed. That is, mindreading might be used in some situations but these are not central to our ability to successfully predict, interpret, and react to the behavior of other. We might need mindreading as a back-up option for extraordinary cases, but it is not key to our striving and thriving as social beings. Testing the centrality of a socio-cognitive strategy is not a simple empirical matter, as normative aspects play a role in determining what constitutes

crucial aspects of human life, including aspects of pure biological survival, socio-economic status, or personal fulfillment. We will therefore not attempt to develop a strict measure here. Rather, we want to point out different situations in which mindreading necessarily comes into play and identify them as relevant paradigmatic cases of human interaction. This argument is based on two steps. First, we must recognize that there are certain cases of social cognition in which mindreading is necessarily employed as alternative strategies come to their limit. Second, we must show that these cases are not just side-phenomena of human life.

A first point to note is that the assumption that mindreading is used only in unusual cases is based, among other things, on a common overestimation of the cases in which socio-cognitive strategies other than mindreading can be employed. For example, it is often assumed that mindreading is only of relevance when we interact with people who substantially differ from us (e.g., people from an unfamiliar culture background or with certain impairments in social interaction). On the contrary, we think that the application of mindreading is much broader given that, taken on their own, all socio-cognitive strategies are quite limited, including direct perception and rule following.

With sufficient background knowledge about a person or situation, smart perception might allow us to directly access not only basic intentions, such as the direction of another person's movement, but also "higher" mental states, such as more complex emotions (e.g., Gallagher, 2008). However, direct perception has its limits, for example, when there are insufficient social cues (e.g., in written communication via letters, emails, text messages, or social media) or when the social situation becomes more complex and multilayered (e.g., when a person tries to cover up their actual feelings out of shame by imitating the bodily cues of another emotion). The same is true of many cases of rule following which only has application in situations in which the attribution of mental states is not required. For example, we might be able to predict the behavior of others and coordinate our movement when being on a busy bus. However, we will not be able to know what another person on the bus thinks when staring at us based purely on rule following. Rule following and direct perception may complement each other in some cases without the need to theorize about or simulate the minds of others. A crucial area that remains inaccessible, however, relates to interactions that focus on the complex idiosyncratic mental states of others (e.g. their world view, existential concerns, or life goals) that are constitutive of their personality. These play a central role, for example, for long term relationships and are accessible neither via direct perception nor rule following (Coninx & Newen, 2018).

Taken together, direct perception and rule following alone seem insufficient for certain social encounters. One could argue that this is unproblematic for recent pluralistic approaches. These allow for mindreading as a subordinate socio-cognitive strategy employed in particular situations. This may include those situations in which we interact with people that profoundly differ from us, communicate in

written format, have to master contractual social situations, or establish in-depth relationships with individuals. However, in order for this to continue to justify the attribution of a subordinate status to mindreading, precisely these situations would have to turn out to be marginal phenomena of human life. In a second step, we therefore intend to show that this is not the case. On the contrary, mindreading is necessary to enable central spheres of our life. In order to show this, we will address the previously indicated examples in more detail. We do not assume that any of these examples on its own can confirm our thesis, but that they jointly speak for the attribution of an equal status to mindreading in a pluralist framework.

First, mindreading is often argued to be an important strategy in understanding people who differ substantially from us with respect to their behavior, for example, who come from different cultures or suffer from disorders impairing social interaction (see also Newen, 2015). In these cases, we cannot always rely on direct perception because the given perceptual cues might not indicate the same mental states or behaviors. For example, patients suffering from Parkinson's disease are impaired with respect to the facial expressivity of emotions (e.g. Bologna et al., 2013). Hence, socio-cognitive strategies of direct perception are of limited use in understanding these patients. The same might apply in situations in which we interact with people of a particular cultural background, in which, for example, emotional expressions are systematically suppressed or related to different mental states and corresponding reactions than we are used to. Moreover, past experiences, social roles, or stereotypes would also not be of help in those situations in which we are not particularly familiar with the relevant social group to which a subject belongs. For many people these situations are clearly peripheral occurrences. It should be noted, however, that for some people interactions with people from various different cultures are a central part of their daily lives, such as in the financial sector or the travel industry. Even for people for whom interactions with yet unfamiliar cultures are rare events, they can still be perceived as particularly significant experiences for their personal development. Finally, it can be added that mindreading might also be needed for various common interactions with young children. Young children substantially differ from adults as they are not yet fully familiarized with the respective social norms and behavioral patterns and their bodily cues often only indicate the need for further considerations.

At this point it is worth highlighting the role of *mindshaping*. The idea of mindshaping is that we not only passively interpret the mental states of others, but actively shape these in order to make another person more comprehensible (Mameli, 2001; McGeer, 2007; Zawidzki, 2008). The attribution of unobservable mental states to others does not exclusively serve the accurate representation of mental states and the accurate prediction of behavior, but allows us to influence the mental states of others and thereby facilitate coordination. This is a process which probably plays an important role in our interactions with children, but also

when meeting different cultures upon which mindshaping can take place in order to increase mutual comprehensibility. For example, our folk psychological assumptions about the mental states of others might turn into self-fulfilling prophecies as we ascribe certain beliefs, desires, intentions, or emotions to children and expect them to behave accordingly. What is important about this is that the adjustments which take place are not merely at the level of behavior – i.e. that we learn to behave according to the practices of a society in line with the rule following strategy – but that this is supposed to directly modify the mental states we actually have in order to allow for better mindreading. Mindreading and mindshaping can thereby be considered complementary in that effective mindshaping depends on mindreading and *vice versa* (Peters, 2019).

Second, we also tend to rely on mindreading when a social situation emerges that offers only a small number of perceptual cues (Baron-Cohen, 1995). Imagine, for example, a situation in which we read an email from an editor or a comment posted under a blog entry. In these cases, we engage in forms of social interactions but all typical cues of direct perception are missing. Thus, particularly in situations of this kind, we seem to rely on the attribution of mental states by means of theory-based inferences or simulations in order to successfully engage in social understanding. It might be objected that although in these cases interactive mechanisms cannot be at work, other processes, such as social roles or past experiences may be employed rather than mindreading. For example, I may have interacted with editors via mail on a regular basis and, therefore, I can rely on certain social scripts or stereotypes in order to explain or predict behavior without explicitly attributing a mental state. Notwithstanding, we often engage in forms of communication in which we have no general rules that we can rely on. For example, an early career researchers might lack previous experience with editors and even for advanced researchers it might appear difficult to associate a random commentator with a social role that allows for the prediction of behavior without the engagement of mindreading. With the progress of digitalization in our life and the fact that we use written communication via various media for central aspects of our professional and private lives, it seems difficult to see only a peripheral role for mindreading here.

Third, socio-cognitive strategies of direct perception and rule following are of limited use when a social situation becomes more complex and multilayered. While it is often emphasized that human beings are cooperative and this collaborative interaction is a driving force in the development of human social cognition (Tomasello, 2020), we should not forget that we are also a highly competitive species. While we may be willing to directly reveal our mental states in some contexts, often we are more withdrawn with strangers or actively try to deceive people. There are many different reasons why people try to hide their actual mental states from others. In some cases, a friend may act as if everything is fine because they are ashamed to about their feelings. In another case, a co-worker may act friendly so that we do not realize

their intention of plotting against us to receive a promotion. In these cases, cues from direct perception may be missing or unreliable and need to be supplemented with more complex mindreading strategies. Rule following cannot replace this, since this is about understanding the mental states of a specific individual in a concrete life situation whose behavior might deviate from the known general rules. These situations require working out what another person is actually thinking, as opposed to what they want you to think; or thinking about how you need to behave in order to make another person think you are thinking something else than you actually do. For these complex activities, it seems unhelpful to resort purely on rule-following strategies which offer only a rather behaviorist approach in the absence of mindreading. Being able to engage in 'mind games', identify tactical deception, and develop counter-strategies seems central for the biological, socio-economic, and personal thriving of humans, even though they might not be used as frequently.

Fourth, mindreading is a central socio-cognitive strategy in that it is fundamental for *how* we understand others. Stueber (2012) has highlighted that mindreading - or more specifically the ability to attribute mental states to others in order to explain why someone acted the way they did - is essential for understanding other people as rational beings. Even if we do not always need to be able to explain the other person's actions in terms of their mental states in order to interact with them, being in principle able to do so is required for our understanding of others as minded and rational beings. This is something which goes beyond direct perception because often one's reasons for action, including also background beliefs and assumptions are not something which can be directly perceived in a particular moment. In this sense mindreading must be seen as a central pillar of social understanding, not because we use it so often, but because it underlies a fundamental aspect of our understanding of other people. Beyond this, mindreading also allows us to build and maintain person-centered relationships with others as individuals. Rule following strategies are necessarily limited when it comes to understanding others as an individual as rules and norms tend to be broader generalizations which are not subject to individual differences. Even if we do have rules for the idiosyncrasies of individuals (e.g. Chris goes for a jog every morning at 6:30) these only allow for limited behaviorist predictions. But it is specifically these individual differences in terms of beliefs, life goals, or fears which are essential for establishing close bonds with individual people. The corresponding attributions also elude direct perception because the set of beliefs, desires, emotions, and the like that characterize an individual are not directly perceivable in a single situation. This is especially true when we are just getting to know a person. Interestingly, situations in which we need to get to know others as individuals might occur regularly in personal, but also in professional contexts. This applies especially to people working in educational or economic jobs which require developing learning strategies adequate for individuals or reacting to individual preferences to make

convincing offers. In particular, mindreading is also required for the maintenance of person-centered long-term relationships going beyond the here and now. That is, we need to attribute complex sets of mental states to keep close relationships with our colleagues, friends, partners, and families.

What this aims to illustrate is that even if we only employ mindreading rarely, mindreading nonetheless underlies much of our understanding of others. It is clear that we do not only see others as objects. But our understanding of others also goes beyond merely seeing them as minded beings: we understand that other people are and complex rational beings with an individualized perspective on the world. It is mindreading which allows us to form this conception, even if the strategy itself is less used in day-to-day life. As such, cases in which we employ mindreading in this manner might be less common but they might prove most meaningful and rememberable to us.

Taken together, these examples show that mindreading plays a central role in social understanding. In the literature, we often find idealized descriptions of situations in which a single socio-cognitive strategy is employed. In many of them, mindreading finds no application. However, those cases in which mindreading is actually employed are not necessarily peripheral to human life. Moreover, we assume that in real life, the plurality of socio-cognitive strategies are not used in strict isolation. In the contrary, humans use all available means in a situation to predict, interpret, and react to the behavior of others in the best possible manner. Therefore, it seems more likely that theory-based inference-making, simulation, direct perception, and rule following are used simultaneously as complementary strategies (see also Spaulding, 2018; Westra, 2018). For example, in aiming to understand and predict the behavior of another person, perceptual cues as well as stereotypes might feed into the ascription of a mental state via mindreading. Moreover, mindreading can influence direct perception or rule following by constraining the search space for perceptual cues or activating certain stereotypes rather than others. This does not exclude that in some cases only one socio-cognitive strategy is employed. The decisive aspect is, however, that mindreading does not only come into play in the periphery of human social interaction.

3.2. The Reliability of Mindreading

A further argument often raised against mindreading is that it is an unreliable strategy compared to the alternative strategies. For example, in areas in which we are strongly dependent on mindreading such as communication via social media we seem to find more error and misunderstandings. The conclusion drawn from this is that mindreading is error prone and should therefore only be used when alternative socio-cognitive strategies are not available.

A first point to note about this is that it is unclear to what extent the reliability of mindreading (or any of the alternative strategies) can be assessed. Westra (2020) argues that we currently do not have any good means of determining the

reliability of mindreading. The reason for this is that reliability of mindreading is often assessed through comparison with self-report. In other words, whether we correctly attributed a mental state depends on whether this corresponds to the person's self-report. However, there are reasons to be skeptical that such an introspective self-report is always accurate. For this reason, it would be difficult to empirically determine whether mindreading really is accurate or not. Therefore, we are once again confronted with the problem of establishing a clear method to adequately empirically test a criterion that is supposed to speak for a marginalized status of mindreading in a pluralist framework.

But despite this, perhaps there is some motivation for being concerned about the reliability of mindreading. As mentioned above, it does seem that areas in which we are predominantly limited to only mindreading, such as online interactions, strategies are more prone to error and misunderstandings. However, the situations in which mindreading is the only strategy available to us are usually rather complex situations where we must make decisions and judgements based on less information than otherwise, or we have to engage in highly specific and individualized mental state attribution. Given the complexity of these scenarios, it does not seem surprising that we would find more error here, simply owed to the situation itself rather than the strategy of mindreading employed.

A different reason for being concerned about the reliability of mindreading is the vast variety of mental states that could be attributed to explain behavior. Andrews (2017) notes that there is no clear one-to-one correspondence between mental states and behavior and that for this reason mental state attributions are likely to be false. For example, there are many mental states which could explain someone's behavior of going to the shop – the need for a particular food item, the desire to prepare for a party, etc. Similarly, there are many behaviors which the desire for a drink could give rise to. This would make predicting a behavior based on a mental state unreliable. In response to this, we might question the level of detail required for most everyday interactions – if we are attributing relatively broad and unspecific mental states or predicting broad types of behavior this would seem to be less of a concern. More importantly, however, the alternative strategies are also not free from this problem. For example, there is also no one-to-one relationship between behavior and rules or norms of society: one and the same behavior can be in accordance with different rules, and norms do not always mandate one specific behavior. Similarly, concerning direct perception, there are multiple reasons why a person might smile – they may be genuinely happy, or they are being polite, or smiling to hide their true feelings.² Purely seeing a smiling face might therefore prove insufficient to attribute one particular mental state with certainty.

This point is true more generally: the accuracy of all socio-cognitive strategies often depends on how much background information we have available to us. If we have a lot of

background information, for example, we know the situation well and we are familiar with the person in question, then all strategies of social cognition used are likely to be more reliable. Background information is crucial in constraining the search space of mental states to attribute to the other person, but similarly it is also needed to constrain the interpretation of another person's behavior based on rule following (see also Coninx & Newen, 2018).

One reason why mindreading might often be considered less reliable is that some of the stereotypical examples highlighted above where mindreading is especially needed, are cases in which we have relatively little background information, for example, when meeting a new person or engaging with strangers online. In these situations, we first need to gain information about the other person in order to improve the reliability of our understanding of them. However, this lack of reliability is due to the lack of background information rather than mindreading itself.

A final point to note is that all three socio-cognitive strategies considered here should be seen as playing an important role in gaining information. As such, our ability to understand others is likely to be most accurate when we are able to make use of a combination of these strategies. When interacting with other people we combine background information, as well as all other information we can gain via direct perception, rule following, *and* mindreading in order to make the most accurate interpretation of the situation. As such, mindreading is not only an ability which gets brought in when the other abilities fail, but a further important source of information which supplements and enriches the information we gain from other strategies.

Fully working out how the different epistemic strategies involved in social cognition interrelate would go beyond the scope of this paper but the basic idea that we derive and combine information for all socio-cognitive strategies can be illustrated with an example. Imagine we meet a friend at a party who does not greet us and seems to avoid us on purpose. This constitutes a violation of the norm concerning general behavior expected from friends as well as this particular friend who has never acted like this before. This prompts the need for the employment of socio-cognitive strategies other than rule following to determine why our friend is behaving in such manner. Perhaps we can directly perceive that the other person intentionally avoids eye contact and we engage in mindreading in order to determine why this is the case. This mindreading is then itself influenced and constrained by the information we have about the person or the situation, e.g. do they show a similar behavior with respect to other people or only us. Further, in conversation mindreading strategies can be updated and combined with cues from direct perception, such as facial expressions indicating whether our friend is more likely to be angry at misbehavior on our part or ashamed at misbehavior on theirs. In general, this illustrates that epistemic strategies of social cognition are

² Ekman, Friesen, & O'Sullivan (1988) have famously argued that there are different types of smile and that a genuine smile differs from a fake one. While this may allow an expert to spot the

difference, it is questionable whether this really is something which is commonly noticed in social interactions, especially if the other person is less familiar to us.

often used in a mutually supporting and flexible manner in order to best meet the demands of a situation.

4. Conclusion

In this paper, we have argued for the importance of mindreading as an equal socio-cognitive strategy within a pluralist framework. Contrary to what is often supposed, mindreading is required for a variety of social situations and is especially crucial for the maintenance of interpersonal relationships. Mindreading might therefore also be considered a central strategy of social cognition because it opens up new spheres of social life. Furthermore, we have argued that there is no reason for considering mindreading to be less reliable than alternative strategies of social cognition. In arguing for this version of pluralism, we have stressed the importance of thinking of the different strategies not only as alternatives but as complementary elements. An upcoming task for future pluralist accounts is to provide a more detailed account of how the different strategies interact and complement each other in social cognition in order to provide the best possible results.

Acknowledgements

Our special thanks to Prof. Albert Newen for numerous thoughtful discussions. This paper was supported by the following projects: Deutsche Forschungsgemeinschaft (German Research Foundation) - GRK-2185/1 (DFG Research Training Group "Situated Cognition") and - NE 576/14-1 (DFG project "The Structure and Development of Understanding Actions and Reasons").

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