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‘The Relational Account of Joint Attention’

Motivations, Challenges, and Perspectives

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Chapter One: Introduction

Joint attention is a psychological everyday phenomenon so indispensable and self-evident in all our interactions with other humans that we are hardly ever aware of it.[1] Indeed, it is such a common and basic part of our lives that at first glance it seems quite puzzling what might actually stir philosophical curiosity about it. In normal circumstances we would not even notice it as a distinct phenomenon, yet everywhere people are watching sunsets together, hold hands in the movies and admire the grace of lions in the savanna; they arrange furniture together, point out shooting stars to each other and chase the cat around the house. All of these activities and infinite more are based on joint attention, but that doesn't answer the question what it is that makes it so interesting to us. A preliminary answer can be given by looking at a simple example.

Yet, before we jump right into the matter, a quick word on terminology seems prudent: joint attention is a term used simply to describe situations in which two or more persons[2] are *jointly* attending to the same object, situation or state of affairs in the world. The critical word is *jointly*: In order to speak of joint attention it is not enough that a number of persons are merely directing their attention simultaneously at the same object. They need to do it jointly. Imagine for instance two customers in a department store – maybe mother and daughter on a pre-Christmas shopping adventure, – who are looking at a beautiful scarf. They are critically appraising it, discussing its qualities and whether it would fit into the daughter's wardrobe. Clearly, these two are jointly attending to the scarf. Now compare the situation of the two customers with the situation of the warehouse detective hiding behind the Spanish mirror who is observing the two, alert for any kind of suspicious behavior. He too is attending to the scarf whose merits the two are discussing. Yet it would feel very forced to claim that all three of them are jointly attending to the scarf.

So what makes the situation of mother and daughter so special? There is little disagreement in the relevant literature that what characterizes their situation (i.e. joint attention) is a certain "openness" (f.i. Campbell 2002/2011, Peacocke 2005, Schmitz 2015, Seemann 2011). It is completely "out in the open" between them that they are jointly attending (Campbell 2002: 166). Unfortunately, this apparent and intuitive 'openness' is merely a metaphor that serves well enough to capture a distinctive yet vague sense of the phenomenon, but of itself does not help to explain it (Peacocke 2005: 298). The mystery remains of how exactly we are to understand this

[1] It was of course Heidegger who ever so darkly warned his all his fellow philosophers against ignoring that which lies completely open to our eyes, because: ‚It is the nature of the plain and obvious to be the actual place

[2] The number of persons involved in joint attention situation is theoretically unlimited, although physical realities practically limit that number severely. For ease of understanding in this discussion we will deal with the minimal amount of involved persons for situations of joint attention, which is two.

'openness' characteristic of joint attention: what is its nature and how does it come about?

It is the objective of this thesis to investigate one of the currently most popular philosophical contributions[3] to that very question: John Campbell's Relational Account of Joint Attention.

Campbell, in line with his overarching Naïve Realist approach to the Philosophy of Mind, argues that we could only make sense of the phenomenon of joint attention by understanding it as a three-place experiential relation. In such a three place experiential relation, the other (the co-attender) is not just an additive feature in the individual experience, but the respective other's co-attendance is *constitutive* for the experience being joint-attentional. The individual mental states of two agents jointly attending to an object are thus constitutively tied to each other, so that they can only experience joint attention if they really are in a joint-attentional situation. What distinguishes the individual experiential states of joint attention from non-joint attentional ones is not what is featured *in the experience* (i.e. some perception of the other and the object, for those could be equally perceived in a non-joint attentional experiential state). Rather, it is how the object and the other are *related to* in the experience. The featured object is now related to (by both/all attenders) as an object of potential joint action or engagement, and the other as a potential 'partner in crime'.

The aim of my thesis is to provide an in-depth analysis of argument, motivation and perspective of the Relational Account of Joint Attention. It will show that, – despite its apparent theoretical elegance, – it ultimately cannot do justice to the phenomenon it seeks to explain. However, the insights gained over the course of our investigation will help to sketch the outlines of a more adequate analysis. The investigation is structured in three systematically different parts that each make up one of the chapters two to four. The second chapter analyses Campbell's argument for the Relational Account in detail. It will make transparent why exactly Campbell believes we need the Relational Account to solve the puzzle of joint attention. Only the last two sections of this chapter feature a critical line of attack. They will show that Campbell cannot plausibly defend any notion of explanatory exclusivity for his Relational Account of Joint Attention. While these arguments do not yet show that the Relational Account itself is implausible, they lay the groundwork for the assessment of further possible motivations in the third chapter. The third chapter is itself separated into two parts which each investigate possible motivations from a different philosophical field. In the first part of chapter three we are going to look at two riddles from the Theory of Mind, Berkeley's Puzzle and Nagel's Riddle of Consciousness, for both of which Campbell's claims the Relational Account of Joint Attention might provide a solution. It will turn out that these putative solutions depend on Campbell's mistaken belief that the puzzle of joint attention could provide unambiguous reason for his

[3] Since philosophical interest in the specifics of joint attention has been so far been moderate at best, ‚most popular' should be taken as a fairly relative term.

Relational Account, and thereby too for his naïve realist view of perception. The second part of the third chapter will then investigate the potential bearing of the Relational Account of Joint Attention on the debate of Collective Intentionality. Here too relational accounts have become quite popular recently; and thus the possibility that the Relational View of Joint Attention might affect this debate productively stands to reason. However, careful analysis will show that Campbell's account offers no new solutions for theorists of Collective Intentionality. The fourth chapter then will look critically at the Relational Account of Joint Intention itself. After discussing and rejecting two recent critiques, I will show that Campbell's view cannot plausibly account for its subject in its own theoretical framework of Naïve Realism and that furthermore it is build on phenomenologically implausible assumptions about the epistemic status that experiences of joint attention have for the involved agents. The chapter finishes with a short outline of a more adequate account of joint attention.

Chapter Two: Reconstruction of the Relational Account of Joint Attention

Section A: Introduction

On the following pages of this chapter I will try to unravel John Campbell's proposal to understand the mystery of joint attention. The chapter serves a double purpose:
Its first aim is not a critical discussion of the details of Campbell's own Relational Account (which is reserved for the fourth chapter), but rather to offer a comprehensive interpretation of the argument that leads him to his unique solution. I will supplement arguments and flesh out details in his line of thought that he takes for granted, but that are non-the-less important to gain the solid understanding necessary to give a critical assessment of his proposal. The second aim of this chapter is to show that Campbell's main motivation to give a Relational Account of Joint Attention is mistaken; namely that it was the only possible account that allows explaining a certain functional role joint attention needs to fulfill for our cognitive lives. I will argue that there is at least one other possibility that fulfills the criteria developed by Campbell and that therefore the need arises for him to motivate the relational account in a different manner. The plausibility of some other motivations will henceforth be explored in the third chapter.

Note again that the focus of this chapter is not yet to criticize Campbell's Relational Account itself nor to argue in its favor, but rather to interpret the path of his argument and then criticize one aspect of it in depth, namely Campbell's critique of certain theoretical frameworks which entitles him to believe the Relational Account is the only possible solution. Thus, as a critique of Campbell's critique the outcome of this chapter does not yet say anything about the plausibility of the conception of the Relational Account itself. The latter will be discussed extensively in the fourth chapter of this work.

Accordingly, the upcoming section will offer an interpretation of John Campbell's baseline assumption that Joint Attention is best understood by highlighting the *functional role* it plays in our (collective) cognitive lives: to allow us to act jointly on specific objects. The next step is to gain an overview of all the possible theoretical options at our disposal to describe Joint Attention and to categorize these options neatly.

I will then proceed to systematically explain why each of these options fails to meet Campbell's criteria for a plausible account of joint attention, and also why at least in one case, the reductive experiential account, he fails to offer a convincing argument for its rejection. The last section then presents the Relational Account in contrast with the reductive experiential account, and seeks to understand and then reject a further possibility to explain the matter of courseness with which Campbell rejects the reductive experiential accounts of joint attention. The upshot of this second chapter will be that the phenomenon of joint attention in itself as understood and analyzed by John Campbell does not justify a *need* to give a Relational Account.

Section B: Theoretical Candidates to Explain Joint Attention

In his 2011 essay Campbell argues that we can subsume the most intuitive attempts to solve the puzzle of joint attention as following either one of two strategies: those that seek to understand joint attention in terms of sub-personal information processing routines, and those that try to do so in terms of beliefs and desires or perhaps other emotions possessed by the subject" (Campbell 2011: 415). Both ways of understanding joint attention inevitably fail to deliver plausible theories in the eyes of Campbell, for reasons that will be explained over the next few sections.

Evidently these two common sense strategies to solve our puzzle do not reflect a conceptual dichotomy, since 'sub-personal information processing states' is a more general psychological concept than 'beliefs', or 'desires'. But for reasons of systemacity it seems we can construct such a conceptual dichotomy by subsuming explications in terms of beliefs and desires under the broader category of *personal level mental states.* As will become clear, in this much broader category of personal level mental states, beliefs and desires are but one of several possible strategies to explain joint attention.

In my interpretation, by *sub-personal information processing routines* Campbell refers to brain states remote from our consciousness (i.e. remote from personal level mental states) that constantly interpret all the perceptual data without burdening our conscious mind with the oft vastly complex computational processes. It refers to all the brain processing and computing that is beyond our conscious awareness that we can neither access nor control in any direct manner. For instance, all the thousand intricate little computations that my visou-motor-processing needs to constantly go through so my fingers hit the right keys on my keyboard while my conscious mind is completely absorbed by the thoughts I want to put into words. If I had to consciously go through all the minute little computations I would never finish a sentence. Sub-personal information processing states are not directly introspectable[4]. We may infer that we have them from our actions, or even thoughts, but they are not subjectively available as themselves. Contrast that with *personal level brain states*, which include all the potential or occurrent artifacts of our conscious life that we can at least theoretically be aware of or introspect. Beliefs and desires, emotions and moods belong as evidently in this category as do perceptual states, whether they are acoustical, tactile, olfactory or visual. Campbell's preferred option of explaining joint attention also belongs in the category of personal level mental states. Thus we need some further criteria to qualify our theoretical options.

In *Reference and Consciousness* (2002) he presents joint attention as a natural extension of his overarching 'naïve realist' picture of perception, he distinguishes two slightly different lines

[4] Which is a definitional matter here, not an empirical one.

along which we can try to locate attempts to understand joint attention. It turns out that if we integrate them into our dichotomy between sub-personal and personal level mental states we arrive at a very neat and systematic picture of the relevant theoretical options that will guide the further analysis of Campbell's argument.

The first divide he presents us with is between *reductive* and *non-reductive*, that is *relational*, analyses. Reductive analyses will seek to explain the phenomenon only in terms of the individual states of the attenders. That means it is perfectly possible for only one individual subject to be in a purported state of joint attention[5], while the other person isn't actually co-attending and thus there is no real joint attention. Conversely, on a non-reductive, relational account as favored by Campbell this is not possible. Here you can only be in a state of joint attention if your presumed co-attender is actually really in the same state of joint attention with you. On such an account "[…] ascribing the relevant psychological states to x already implies that there is someone with whom x is jointly attending" (Campbell 2002: 161).

The second divide in our theoretical options is between *experiential* and *non-experiential* accounts of joint attention (ibid.). One might think that we had this distinction already covered in terms of personal-level and sub-personal level accounts, but we are really dealing with a categorical difference inside the personal level states. By experiential Campbell merely refers to our immediate direct perceptual experience of the world, pure and unhampered by our beliefs, desires or imaginations. He considers accounts of joint attention to be *experiential* when they hold that joint attention reflects a qualitative difference in the perceptual experience of the two attenders.

On non-experiential accounts of joint attention the perceptual experience stays essentially the same. It is only that "[…](a) you are monitoring the direction of the other person's attention, and (b) on of the factors controlling the direction of your own attention is the directions of the other person's attention" (ibid.).

I believe we can imagine two different non-experiential accounts of joint attention that still belong into the category of personal level mental states. For the first one, the one Campbell himself has in mind, the monitoring and controlling functions are classic cases of propositional seeing and desiring, which we can try to spell out for example like this:

P1. *X sees that* Y is looking in the direction of Z. (Monitoring Function)

P2. (*X desires that X sees* what Y is looking at. (Control Function))

P3. X knows that X is seeing Z and that 1 and 2.

P4. *X infers* from 1,(2),3 that X is jointly attending with Y to Z.

Basically, on this picture, which by the way is deliberately over-simplified, a series of

[5] More exactly to experience herself to be jointly attending.

exteroceptual and interoceptual judgements allows X (and conversely Y, too) to conclude that he is jointly attending. This would be the kind of account of joint attention Campbell had on his mind as most likely to be brought up together with the sub-personal processing strategy above. For future reference we can call it an ***inferential non-experiential reductive (INER)*** account of Joint Attention.

A second way to imagine a non-experiential yet personal level mental state account of joint attention would be to think of the monitoring and control functions as purely sub-personal information processing states whose upshot (whenever the calculations imply a joint attention situation) non-the-less becomes subjectively available as a propositional state, for instance:

P1: It is the case that I'm jointly attending with Y to Z.

Admittedly, this amounts to a somewhat curious account of joint attention: if asked, X wouldn't be able to give (universally acceptable) reasons for his belief to be jointly attending. Apart maybe from claiming (for laymen rather unlikely, and for most contemporary theories of knowledge rather insufficient) that P1 had been the upshot of his sub-personal information processing, and maybe his insistence on his general trust in the truth-unearthing capacities of that system. On the other hand, as the debates sparked by the late Wittgenstein's discussion of Moore's infamous *Proof of an External World* have shown, there *seems* to be no scarcity of propositions we usually take ourselves 'to know' with utmost certainty, yet for which we do not have further reasons to give.[6] Thus, even if Campbell did not investigate himself such an account, it seems justified to include a ***non-inferential non-experiential reductive (NNRA)*** account of joint attention in our analysis; especially since it will later help us to make a point about the reductive experiential account of joint attention.

Lastly, then there are ***experiential*** accounts of joint attention, which might be thought of as either reductive or non-reductive. What is distinctive of experiential accounts is that they think of joint attention as marked by "[…] a shift in the nature of your perceptual experience itself, when we shift from solitary attention to joint attention" (Campbell 2002: 161). The ***reductive experiential (REA)*** account of joint attention is a close sibling to the NNRA in so far as, here too, the monitoring and control functions are performed by sub-personal information processing mechanisms. However, other than on the NNRA the upshot of these computations does not become subjectively available as a proposition, but rather as a qualitative difference in our perceptual experience. This 'individuation' of our experience is not to be thought of in terms of *what* is featured in the experience. It is not meant in a way that we now see more or different things; that for instance X would now also perceive Y in the periphery of his experience, nor that the inner qualia of our perceptions change. Campbell doesn't deny that what is perceived might

[6] I'm referring to Wittgenstein's ‚On Certainty' here (Wittgenstein 1969).

be different when there is someone else with us attending compared to no one else being near us. Only this isn't the point. Rather the individuation of the experience provided as the upshot of the sub-personal monitoring consists in a shift in the functional role it now plays as a joint attention experience for our possible actions (ibid.). If our mental state is one of attending to something jointly with someone else, the 'content' of the experienced situation doesn't change, but it is now immediately rational to interact with the object in ways that wouldn't be rational if we were only solitarily attending to it. The subtle shift in how we experience the object of our (plural) attention allows us to immediately engage in joint and coordinated action on the object (ibid. 168f)). **Section C** of the fourth chapter will deal extensively and critically with how we are to interpret this experiential shift.

Please note that on this account the joint attention experience is still reducible to the individual states of the involved subjects. While there is a causal link between the presence of the other person and his specific micro-behaviors that get picked up on and get interpreted by the sub-personal monitoring processes, the experience of being jointly attending still remains only internal to the mental states of the individual attenders (ibid. 163f). Thus it is totally compatible with such an account of joint attention that X takes himself to be jointly attending with Y to Z, and acts in accord with the functional role his experience of Z now has, while Y was merely daydreaming and thus not experiencing a joint attentional state at all.

It is the latter part that would be different on ***non-reductive experiential (NREA***), or ***Relational Account*** of Joint Attention as favored by John Campbell. Everything else remains the same as on the REA with the notable difference that the respective co-attender's co-attention is a constituent of the joint attentional experience of the two subjects (Campbell 2002: 161f). If the other wasn't our co-attender, we couldn't have the experience of a joint attention situation because the only thing that could act as constituent, namely the other's co-attention, is lacking. In other words, we wouldn't be having that experience of being in a joint attention situation if we weren't related to the other in such a way that his experience of being in a joint attention situation was constitutive for our experience of being jointly attending and vice versa. Such a conception of joint attention does provide a logical link between being in certain experiential situation and the situation being exactly as it was experienced. Joint attention is a primitive "three-place-relation between subject, co-attender and object" that becomes realized as "personal-level, non-propositional mental states" (Campbell 2011: 416).

The same causal conditions that control the respective attention of the two attenders on the other accounts hold true for this picture of joint attention. There is still the same (in this case sub-personal) monitoring and controlling of attention happening because there is a set of causal conditions for being jointly attending to something. Even on the NREA, to be in a brain state in which the experience of their respective attention for X and Y is joint, the object

"[…] z must have played a causal role in bringing it about that x is in that brain state, and […] and the fact of y's continued attention to z must be one of the factors causally sustaining x's continuing of attending to z, [and vice versa]"(Campbell 2002: 163).

Again: What is particular (and/or peculiar depending on whom you ask) about the Relational Account of Joint Attention is that it takes experience (in this case the experience of a change of the occurrent functional role of their (X and Y's) attention) as bringing us into direct contact with states of affairs in the world. Imagine we are standing at a lakeside near a random stranger, both of us looking over a lake and there is a lone white swan idly swimming on the shallow waters; and while we are focusing our visual attention on the majestic animal, a subtle shift in our experience of the swan takes place: The shift is subtle because it isn't in the visual 'content' but rather in some kind of unobtrusive certainty, a readiness to engage in all kinds of joint endeavors regarding the swan with the random stranger at our side, whose (the joint endeavor's) prerequisite is that we have both singled out the same 'object' in the environment. The way I understand this is that on a very primitive and basic level the palette of potential actions we could engage in on the respective thing we are attending to has just become enlarged with options that encompass potential joint action with that very specific co-attender. On the relational account, as soon as we experience this shift in in the palette of potential actions, it means *necessarily* that the other too experiences the same shift. The mental state realizing joint attention on this picture is one that can only ever be experienced jointly, because the other's attention (as expression of his mental state) is constitutive for our own mental state in such cases.

Campbell admits the possibility of being mistaken about being jointly attending. Such mistakes however do not happen on the experiential level. "In that case on a Relational View, I did not have kind of experience I took myself to be having [sic!]" (ibid.). We can introspect our experience of a situation as being in a three-place-experiential relation with Y to Z. "However […]," as Campbell notes, "[…] here as so often, introspection is not an infallible source of knowledge" (Campbell 2011: 419). While direct experience of objects, properties and shared attentions always provides an immediate and thus in a sense infallible relation to the experienced 'objects', it is only propositional thought about these experiences that occasionally deludes us.[7]

[7] For instance, if I'm not deluding myself currently, when we are experiencing perceptual illusions on a relational view, we are experiencing exactly what constitutes our experience, only our interpretation structured in propositional thought adds too much to the experience. So we might mistake a life-sized picture of a man for a man given certain circumstances only to realize our mistake an instant later.

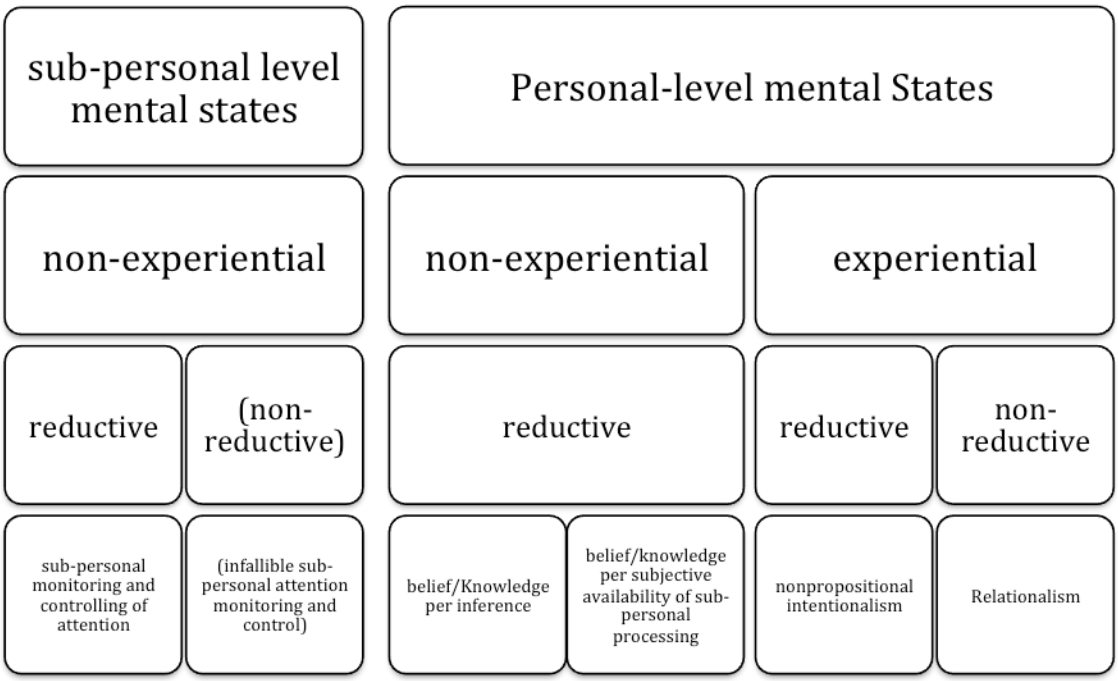

Figure 1. General theoretical options[8] to describe joint attention, after Campbell 2002, 2011.

Peculiar or not, Campbell holds that only with a Relational Account of Joint Attention conceived as above we can understand how it could fulfill the functional role of making joint actions regarding selected items in the environment immediate and un-reflected possibilities for us. In this section we have surveyed the four general strategies Campbell considers to be genuine theoretical options to explain joint attention (see Figure 1) and added a further one (the NNRA). Over the course of the next four sections I will explain the reasons he deems the other four general strategies (and the concrete theoretical options they encompass) unfit to offer compelling explanations, before turning back to the comparatively perceived advantages of his Relational Account of Joint Attention in the last section.

[8] Bracketed options are not mentioned by Campbell himself and irrelevant for the following discussion, but listed non-the-less for completeness sake.

Section C: The Basic Criterion – The Functional Role of Joint Attention

To become clear about what exactly he is analyzing Campbell puts forward what he considers to be the 'canonical form of a report of Joint Attention':

"X and Y are jointly attending to Z" (Campbell 2002: 161).

A proper analysis then must explain what conditions need to obtain in order to make such a report true. Since we are dealing with a psychological phenomenon it must be explained at least partly in terms of the psychological states of the involved subjects. We can also assume that the same conditions must be fulfilled for X as much as for Y (ibid.).

Clearly, it wouldn't suffice to offer a conceptual analysis of the terms 'jointly' or 'openness' we found to be so oddly characteristic of joint attention. That would not tell us anything about how the metaphorical 'openness' comes into existence or what 'is going on' in each of the subjects' minds during episodes of joint attention. Since joint attention is so all permeating and simultaneously so subtle that we wouldn't normally even notice it as a distinctive cognitive phenomenon (if not prompted to do so by an unnaturally inquisitive mind), it doesn't merely expose the limits of our descriptive terminology or a mere lack of understanding this terminology. It rather challenges severely our ability to offer a clear pathway towards a satisfying explanation of the phenomenon since we cannot just investigate mental phenomena the way we can investigate the bio-chemical composition of a plant we just found. We simply can't observe mental states the way we can supposedly observe the corresponding neural activity in our brains. And while on the other hand a detailed phenomenology of how it is to be jointly attending might yield interesting insights and even certain criteria that any complete analysis of joint attention needs to fulfill, it doesn't lend itself easily to an analysis in terms of psychological states. Accordingly, what we need to do is offer a theoretical explanation that is not in tension with either the empirical facts or the phenomenological insights.

The best way to understand Campbell's strategy is to say that, in order to come up with an adequate theory, he starts by postulating a fundamental criterion that any theory of joint attention needs to be able to explain. It would be very unnatural to assume, goes the idea, that such distinctive a phenomenon as joint attention would be cognitively idle, that it served no purpose in our cognitive lives. And indeed there is a very plausible *functional role* for joint attention to play, namely to provide the rational grounds for all kinds of joint actions, ranging from mere talk about an object, to investigating it together, to fighting for possession of an item (ibid. 169). All our collective efforts regarding single objects or state of affairs in the world depend on our ability to attend jointly to these objects or state of affairs beforehand. And it only becomes rational to act jointly precisely because joint attention has this openness about it (Campbell 2011: 417).

The plausibility of this functional role of joint attention can be easily illuminated by

reflecting on the conditions necessary for a child to learn a word like TREE. How could it learn that a tree is called a TREE without joint attention, without 'knowing' what, or better which thing it is that its mother is pointing (i.e. attending) to. The child needs to understand that both it and its mother have singled out the same object in their environment to apply the noise pattern we write down as 'TREE' correctly to that specific thing in the environment. There is obviously way more to learning a language or even just basic words than just joint attention, for instance the 'knowledge' of the child that the noise pattern is to be associated with the referent of their joint attention.[9] Yet, however one might want to fill out the details of an account of language acquisition, this little example alone makes a strong case for joint attention playing a critical role in that process, and that role would be to enable the child to single out the correct objects for the application of its first demonstrative reference terms. It is only in virtue of the 'openness' provided by the joint attention that it becomes rational for the child to associate the voice patterns it is repeating with the very objects it and its mother have singled out jointly in the environment.

The thesis of John Campbell then is that whatever else may be true of joint attention, at its most basic level it has to be what makes it rational to engage jointly with others in coordinated action on specific objects and it does so only in virtue of that 'openness' (Campbell 2011: 417). And the child example (although not Campbell's) gives us already a first hint that the kind of rationality we are looking for here is in all probability a rather low-level form of rationality. It cannot require too much cognitive sophistication if it was to apply to children in language learning age or younger. But then again it is an open question whether rationality of actions demands reflective awareness of it. A question, too, that will linger in the background of the following discussions.

It is noteworthy that, while Campbell holds that joint attention has this functional role to play, he explicitly does not claim, "that [it is] exhausted by this functional role[s]" (Campbell 2002: 169).

This being said, we have now established a still somewhat vague, but non-the-less strong first criterion against which we can measure all the potential candidates for a plausible theory of joint attention. In ***Section E*** of this chapter we will get to know the 'litmus test' Campbell uses in order to lend some concreteness to *the functional role criterion* and make it applicable. We can now start to investigate how the different theoretical options we unearthed in the last section fare in regards to this fundamental criterion.

[9] Many would be probably insists that it demands knowledge.

Section D: The Need for Experience – Joint Attention as Sub-Personal-Level Mental States

Campbell's reasons for categorically denying the viability of any strategies trying to explain joint attention as some or the other form of purely sub-personal-level-mental states are the most self evident. As he writes somewhat euphemistically, "[…] it is hard to see, what [the sub-personal information processing] contribute to the subject's psychological life […]" (Campbell 2011: 415). Sub-personal mental states, as we have seen in the last section, are *per definitionem* not directly accessible for our introspection or other kinds of mental awareness. That's why they are *sub*-personal. But if they are sub-personal in that sense, then clearly they couldn't fulfill the functional role of rationalizing joint actions, which is the guiding assumption of Campbell's whole account (see **Section C** this chapter).

One might want to point against that we also do not need to be aware of all the myriads of sub-personal processes involved in shooting a soccer ball. And while, taken for itself, that is certainly a true statement, it fails to be a productive analogy here. Joint attention means to be in a mental state that makes it *rational* for us to act in manners rational only for people who 'know' they are jointly attending to something. And it seems a pretty straightforward thing to admit that in whatever the exact sense of rationality employed, there is none that can dispense with at least an ambiguous awareness[1] of the fact that is supposed to be the rationalizer of an action. If someone was to break into a city home that unbeknownst to him belonged to a dangerous and unforgiving mobster, but who happens to be far away on holidays, also unbeknownst to the would-be thief, then the latter fact, even if discovered in hindsight, doesn't make his action rational. That is luck. It is not a fact itself, but our awareness of a fact that grounds the rationality or irrationality of our related behavior.

Even in the case of shooting the ball the involved sub-personal processes do not, nor can they ground the rationality of shooting it. At the most basic level the only thing that can make it rational to shoot the ball would be to be aware of there being a ball. We can't shoot balls of whose existence we are not even aware of, with the notable exception of running into them accidentally. Though it is very questionable whether that counts as shooting. As long as non of the information generated by the sub-personal processes becomes subjectively available, whatever states they generate can't play any functional role at all towards *rationalizing* our behavior.

The same holds true for joint attention: if, - as we take for granted here, - it has to play the functional role to provide us with the rational grounds for joint actions, we need not only be aware of the object, but we also need to be aware of the fact that the other, too, is attending to the same object as we are. It needs to be 'all out in the open' between the two attendants. Sub-personal mental states, however accurate and sophisticated, in sheer virtue of being sub-personal do not bring out anything into the open so that we could be aware of it. Hence, any

accounts that try to analyze joint attention purely in terms of sub-personal information processing fail to pass the most basic requirement for accounts of joint attention.

Section E: The Argument from Coordinated Attack

In order to show the strength of his Relational Account of Joint Attention and the unsuitability of non-relational ones Campbell builds on a variation of an argument lent from computational theory (Campbell 2011: 417), the argument from "Coordinated Attack "(ibid.; and Campbell 2002: 164-171), which then becomes his litmus test for theories of joint attention.

He asks us to imagine the following scenario:[10]

Two players are sitting side by side, yet in two different booths staring at the same screen. The booths are constructed in such a way that no direct perceptual contact is possible between the two players, be it by vision, touch or acoustics. They are playing a war game together. On screen there are multiple, differently colored possible targets and they have to coordinate their attack on one of the targets to win. If however they do not manage to attack the same target, then they lose everything and the game is over. Since direct communication is impossible, there are two communication devices installed in the booths for each player. One serves to indicate one of the targets by color, or to transmit a target indication given by the other player, while the second is a simple confirmation button. So when one player wanted to indicate his desire to shoot the green target, he would push the green button and the second player would get the message in virtue of the green button blinking in his booth. Now all he has to do is confirm the target, use his joystick to aim at that green target and hit fire in due time. Winning seems to be a pretty straightforward matter like this. Unfortunately there are a couple of further constraints that need to be introduced in order for the example to make visible what it is supposed to make visible.

The first constraint is that the communication devices available to the two players only work in fifty per cent of their uses. If they work they indicate one target as chosen. If they don't work, they just don't transmit the target-indication, but they never indicate the wrong target. The second constraint, which is not mentioned by John Campbell, but is non-the-less necessary to make the argument work, is that the game is round based. That means that for any one attack on a target that the players may launch, they can only push one of the target indicating buttons once, regardless of whether that push successfully sends a target indication to the other player or not. This constraint is necessary since otherwise the first constraint could be easily remedied through multiple pushes on one target button. It should be possible to hit the confirmation button multiple times.

[10] The following discussion of Coordinated Attack builds mostly on Campbell 2002, as his discussion of the argument is more detailed there.

The whole idea of the *Argument from Coordinated Attack* is to show that the initial fifty per cent chance of a disastrous information inequality makes it impossible to win the game by rational means alone. This becomes very obvious if we imagine for a moment how a typical game that is thus constrained might look:

Player One is fast of decision and selects the green target again. But now he doesn't know whether his target selection has reached the second player. He could only know if the other player succeeded in sending his confirmation through the wire. Yet even if the two players get lucky and of two communication attempts, both are actually successful, after Player One received the target confirmation from Player Two, he still couldn't confidently hit the fire button[11], because he knows that Player Two has no means to know what he (Player One) now actually knows. For all Player Two could know now, player One might still believe that his first message didn't come through, and thus has no reason to fire. Thus Player Two has no reason to fire too. Obviously, Player One could now confirm Player Two's confirmation. But since he also couldn't know whether his own confirmation now went through, this wouldn't alter the situation in any significant way. The Problem is that here is to no rational way to stop these endless iterations of knowledge confirmations here. It doesn't really matter how many confirmations actually make it through, the trouble is always to know whether the last communicative effort was correctly received. It other words, one knowledge loop always remains open. The game played with these constraints in play is rather unfairly rigged against the players.

Interestingly, though, – as Campbell points out – in a more ordinary version of the game, in which the two players are just sitting next to each other staring at the screen, without the restrictions of error prone communications devices imposed on them, there isn't any trouble to coordinate the attack on one of the targets (Campbell 2002: 166; Campbell 2011: 417f.). In 'real life' there isn't much to winning the game: one of the player points at one of the targets, the other nods, both shoot and the target explodes.

We can now use the *Scenario of Coordinated Attack* as a thinking help and litmus test to evaluate the other options to explain joint attention.

[11] Although one might argue, that because of the diminishing probability of successful chains of communication, this might be the best, i.e. ,most rational moment to shoot at all for both of the players.

Section F: Joint Attention as Non-Experiential Personal-Level Mental States

In the category of non-experiential personal-level mental states we have actually two slightly different accounts of joint attention to deal with. Both are essentially variants of classic representational thought. The objection voiced by Campbell against the first one, the inferential non-experiential reductive (INER) account of joint attention then, too, roots back to the classic debate about the possibility of common knowledge. In short, it says that INERs are incapable of providing the full openness required to let joint attention fulfill its functional role.

In long, it means that when we take a closer look at the INER, we find that with the means it provides we always end up in a similar situation as in the restrained scenario of joint attention. In the introduction to the INER as a possible account of joint attention I deliberately didn't paint the whole picture. With the *Scenario of Coordinated Attack* still in mind, it is obvious that P1-P3 do not provide nearly enough knowledge for X to conclude P4.

> ***P1.*** *X sees that* Y is attending to Z. (Monitoring Function)
>
> ***P2.*** (*X desires that X sees* what Y is attending to. (Control Function))
>
> **P3.** X knows that X is seeing Z and that 1 and 2.
>
> **P4.** *X infers* from 1,(2),3 that X is jointly attending with Y to Z.

The argument structure above completely blends out the necessity for X to know that Y knows that P3 and that X knows that Y knows that X knows etc. ad infinity. This would describe the classic problem of how we could ever achieve common knowledge through infinite iterated knowledge states.[12] The answer is we can't, unless we were logically omniscient, which of course we aren't (Campbell 2002: 166).

As a matter of fact, things become even more complicated than Campbell points out when we take seriously the idea that the openness of joint attention would have to be inferred from states of propositional perception. This should become immediately obvious if we just look at one way of fleshing out the inferential operations of the propositional states needed to eventually achieve common knowledge:

1. X needs to see **(P1)** that **there is a Z**.
2. X needs to infer/know from **P1** that **(C1) X is attending to Z.**
3. X needs to see (peripherally) that **(P2) Y is also looking in the direction of Z.** (Monitoring Function)
4. X needs to infer from **P2** that **(C2) Y is attending to Z.**
5. (X needs to **desire (P3) that X sees what Y is attending to.** (Control Function))

[12] David Lewis offered the first complete analysis of common knowledge in these terms in 'Convention' (1969). Since then the debate has received contributions from a wide range of philosophers and game theorists and undergone considerable evolution. For a detailed introduction to the debate see Vanderschraaf and Sillari "Common Knowledge" (2014).

6. (X needs to infer **(C3)** from **C1** and **C2** and **P3** that **(P4) he is attending to Z partly because of Y attending to Z.**)
7. X needs to see that **(P5) Y is (peripherally) seeing *(P6)* that X sees that P1 and X sees that P2.**
8. X needs to infer **(C4)** from **P5** that Y inferred **(C5)** from **P6** that **X inferred C1 from P1 and C2 from P2**
9. X needs to (peripherally) see that **(P7) Y is (peripherally) seeing (P8) that X sees that P5.**
10. X needs to infer **(C5)** from **P7** that..
11. …

n.

The reason it is worthwhile for us to write out the detailed INER and the mix of propositional seeings and inferences it showcases, is not that it proves Campbell wrong in any way but rather that it adds to his point and it will help us to understand why he also rejects the NNRA and REA. There are a couple of things we can learn from looking at the sketch of the first ten iterations of the increasingly complex inferential operations X and Y both need to go through in order to reach common knowledge.

The first observation is something we already know: there is no rational way to close the knowledge loop with the kind of propositional states available for either one of them. Just going through the first ten iterations of X's side demands a mind boggling effort and no human being is capable of going through hundreds of these in an instant, let alone infinite ones.

The second observation is that on such an account we would still presuppose too much. For instance P2 alone is not enough for X to justifiably infer C2. X would need to have some kind of 'Theory-Theory' or Simulation-Theory-Framework in order to interpret directional glances as generating certain attention mental states. We would need to have a whole set of further background beliefs (about whose origins we'd have to tell a convincing story, if the whole account wants to be more then just speculation). These background beliefs would need to tell us something about how to micro-interpret minuscule changes in others' glance direction, intensity etc.

The third observation is related to the second and the most interesting for us, because it already touches on the reasons why Campbell wouldn't consider the NNRA a reasonable alternative to the INER. What we can see on this kind of picture is that we have no clue what is happening inside the other person's head. While *prima facie* it doesn't seem completely otherworldly to claim that - given a sophisticated enough system of background beliefs we could eventually, infer another person's mental state of being attending to a specific thing from our observance of his/her glances, head posture; and maybe (big maybe) it is also possible to simultaneously see correctly (P5) that one's primary visual attention (P1) to Z and one's

secondary visual attention to (P2) was picked up on by the peripheral visual attention of Y. But then it is not that easy at all anymore to also imagine that we could infer correctly from our observance of P5 that Y used P6 to correctly infer C5 that X inferred correctly C1 and C2. For all X could know, Y might have a completely warped framework for interpreting glances picked up on in his peripheral perception, and is inferring all the wrong things. The point is, inferences about the inferences other people might just be making about their occurrent perceptual beliefs do not seem to provide very reliable beliefs.

If we look at it this way, the whole complicated scenario that Campbell build to make his point suddenly makes a lot more sense. On this interpretation of Campbell's use of the *restrained Scenario of Coordinated Attack* even in ordinary situations our own mental states resemble being in the separated booths with very insecure means of communication between those booths. In other words, I can only ever know about my own mental states and it is a very long shot from inferring other people's mental states with nothing else but one's own mental states to base those inferences on.

Thus, Campbell has more reasons to reject the INERs as plausible than 'just' that it demands logically omniscience of the involved agents to go through the infinite inferential iterations needed to reach 'common knowledge' (see Campbell 2002. 166). It is maybe even more gravely the case that the Representationalist paradigm of perception, on which the INER operates, wouldn't even allow *logically* omniscient beings to attain states of joint attention, because the knowledge they have (namely about their own mental states) doesn't even provide sufficient rational grounds to go through the iterations.

Section G: The Rejection of Analyses of Joint Attention as NNRA and as RNA

Now while understanding Campbell's rejection of the INERs, even after introducing the further complications, was pretty much a straightforward matter, things are slightly more complicated when it comes to the RNAs (reductive experiential accounts) and NNRAs (non-inferential non-experiential accounts). The reason for that is that Campbell believes it to be so "[…] evident, that again on this view [he is talking only about the RNA though], the puzzle of Coordinated Attack is insoluble" (Campbell 2002: 167), that he doesn't offer more of an argument than repeating his objection against the INER, namely: "The subject x will still have to achieve infinitary knowledge in order to make the attack rational [sic!]" (ibid.).

I think there are three ways in which we could interpret Campbell's scarce remarks here: The first two are most in line with his actual words, since he said that we would "[…] *still* have to achieve infinitary knowledge [my emphasis]," which suggests that the agents actually have some kind of joint attentional experience, but that is somehow not enough to fulfill the functional role it is supposed to play. In this section I'm going to argue that the first two options are that either the joint attentional experience on these accounts somehow lacks the openness component, or second that the agent has independent reasons to distrust their joint attentional experience to be accurate. I will show that neither of these options can be turned into a compelling argument against the plausibility of NNRAs or RNAs.

The third possibility to interpret his rejection is that Campbell actually denies that we could ever attain meaningful psychological states that indicate joint attention along the lines of the conceptual frameworks provided by RNAs and/or NNRAs. This third option will be discussed in the following section together with the Relational Account itself.

As we learned, both the NNRA and the RNA are very similar in so far as for both only sub-personal monitoring systems are fulfilling the monitoring and controlling functions regarding the others attention, whose upshot then becomes subjectively available. Of course, they differ significantly in the way the ‚situational assessment' of the sub-personal controlling and monitoring instances becomes subjectively available. In the case of the RNA it is a subtle experiential change, which - maybe just like on the Relational Account - becomes expressed as change in the palette of potential immediate actions, which suddenly become extended with all sorts of potential joint actions. In the case of the NNRA that up-shot rather became subjectively available as a belief about the situation one finds oneself in, like

P1: It is the case that I'm jointly attending with Y to Z.

What further unites both accounts is that, since they are both reductive, the causal conditions that trigger the relevant joint attentional brain states to be generated by the sub-personal processes might have a certain margin for error. Certain other conditions might trigger the sub-personal mechanisms to produce the joint attentional state, when truly there wasn't any.

So clearly it seems to be possible that X believes (on the NNRA) he is jointly attending with Y on the green target, hits the fire button, but Y is shooting the yellow target and all is lost; Game Over. But the possibility of losing the game is not the problem here, because, as we saw, even on the Relational Account of Joint Attention there is room for human fallibility; only that there it is a problem of introspective self-assessment.

Rather, the problem is that Campbell thinks this (these) state(s) would not be enough to fulfill the functional role of immediately rationalizing joint endeavors. Once again, there are two possibilities to interpret this:

The first one is that the states of joint attention the subjects find themselves in somehow lack the openness component, which is why then the agents would feel they 'still' needed to go through the infinitary guesses of each other's respective state in order to be rationally entitled to engage in immediate coordinated actions. However, if that were the case it would seem the states of joint attention generated couldn't qualify as joint attentional states after all. This is most obvious in the case of the NNRA:

If someone believed P1: ‚It is the case that I'm jointly attending with Y to Z' that means by implication that he believes that Y also believes that he is jointly attending with him. Otherwise his belief would be something like

P2: It is the case that I'm attending to the same thing as Y does.

Now there are weighty reasons to think the NNRA entirely unsuitable for explaining joint attention. Most prominently, it seems highly unlikely that children or most laymen do have a sophisticated enough concept of joint attention to have a proposition like P1 fulfill its putative functional role in their cognitive lives. But what matters at this point is that *if* they could be reasonably thought to have that level of conceptual sophistication,[13] then, too, we could see a belief thus generated fulfill the functional role. Therefore, even if we would ultimately want to reject the NNRA, it allows us to learn something about reductive personal level joint attentional states: if these are to qualify as joint attentional at all, then the ‚openness' of the fact of it being a joint attention situation must be implicated in that state. If it isn't, then the psychological state doesn't reflect joint attention, but at best shared attention (i.e. I'm attending to the same thing as she does).

This would hold as well for an *Reductive Experiential Account of Joint Attention* (REA), which after all should be a much more plausible contender for acceptable analyses of joint attention, since it doesn't demand any kind of conceptual sophistication of the agents. Here again it must be the case that whatever is the exact nature of the experiential state (generated by the sub-personal processes in response to here unspecified triggers), it must clearly implicate the

[13] Campbell would rightly ask: 'Where from did they gain the necessary conceptual knowledge?'

openness of the situation to the presumed co-attender as well. This argument does also not beg the question, as it merely highlights an indeed analytical truth of what it means to be in reductive personal level states of joint attention. In the light of that truth we can exclude the first possibility of why Campbell might hold that while being in these states agents would ‚still' need to gain infinitary common knowledge: It can't be because these states lack the *openness* from the subjective personal level perspective.

The second possibility is that while on one level these joint attentional states of the agents in the light of NNRA and the REA do clearly indicate the fact of being in a joint attention situation to the agents, for some reason they are ‚still' unable to trust these states. This interpretation might seem slightly more credible on a first view; after all, we found in the last section that according to both of these accounts the actual situation of the two agents closely resembles being in a closed-off booth with very limited means of communication with the outside. Even worse, we found that they do not even really allow the agents to attain any knowledge about the accuracy of their states besides the fact of being in these states. Wouldn't that be an impressive reason for the agents to doubt the trustworthiness of their experiential states and beliefs? Indeed it would, or rather it should, but only if two further conditions were met, both of which, I hold, are very unlikely to obtain.

The first condition would be that the agents had either prior or occurrent insight into the potentially fatal fallibility of their joint attentional belief or experience of the situation. Remember that it was actually one of the conditions of the R*estrained Scenario of Coordinated Attack* that the two players knew about being subjected to error-prone communication devices and also of the rather daunting chances (fifty per cent) of reaching through. But if we tweaked these parameters into something more closely resembling, what the advocates of an REA or even NNRA might have in mind, the results aren't clear as Campbell makes them out to be.

Say, for instance, the two players in the booths wouldn't know that their communication devices are fallible and the chances of successful communication were actually really good, like ninety-nine per cent or better. In such a scenario it would be totally rational for both players to just shoot the target as soon as they have both hit their respective target indicating and confirmation buttons. Even if they lost the (very) occasional game due to communications not received and subsequent one-sided actions, it is most likely they would rather blame themselves for not pressing the button firmly enough or something similar than the communications devices. Just like sensible persons who send an email that never reached the intended recipient would first suspect having put in the wrong address, rather than hardware failure, or nsa/hacker attacks etc., although the latter are very real possibilities (again: provided you know about them). Furthermore, even if after tens of thousand of games and a couple of

hundred of painful losses[14] the agents suspected their communication device to be unrepairably flawed, they would still be rationally entitled to shoot every time they send out their notifications. Because, despite the now apparent fallibility of their communication devices, their non-the-less unscathed high reliability plus the impossibility to increase the rationality through other means (f.i. infinitary knowledge) makes this their only chance to win.

If we transfer this thought back to our analysis of ordinary situations of joint attention according to REAs or NNRAs, we find that as long as the reliability of those states indicating joint attention situations to the subjects is reasonably high[15], we would need very strong extra reasons to lose the rationality generating trust that those states carry in virtue of their apparent reliability. As matter of fact coming up with reasons that are psychologically plausible to affect us strongly enough seems close to impossible. Indeed, the most likely would be knowledge about one's own epistemological predicament. Yet the question remains where from we would ever get this, as this is undoubtedly highly sophisticated knowledge, whose grasp alone we can plausibly attribute only to a limited number of people. Second, as the discussion in this work shows, even if the predicament was real, its realness is incredibly difficult to ascertain (and thus matter of much debate) even from the perspective of agents that wouldn't fail to conceptually grasp it. Third, it is also likely that human beings being all so beautifully human would rather rationalize individually the occasional mishaps that follow from situations wrongly interpreted by their sub-personal mechanism as due to inconsequential reasons, than sacrifice the comfortable trust in these states for the sake of impractical and tiresome epistemic ideals alone.

Thus, it seems already the first condition on whether the epistemic situation according to NNRAs and REAs could itself be a factor making need for additional infinitary common knowledge on top of their joint attention, indicating states from the perspective of the individual subjects doesn't apply, because it seems unlikely most agents would ever attain insight the their epistemic predicament.

Now even if against all odds the first condition could be met, there is a further condition to be met which is at least as questionable as the first: namely that such an insight could affect the agents enough to suspend their immediate trust in their joint attentional states. The scope of that discussion is far beyond what this work could hope to cover. So I will merely sketch a few thoughts that should raise doubts about the possibility.

This is certainly easier regarding REA, because if the joint attentional state is a matter of direct experience, we can expect it is not easily overridden by theoretical beliefs. It is a matter of empirical evidence here that humans are incredible apt at holding on to theoretical frameworks

[14] In all likelihood still a conservative number in comparison to the number of joint attention episodes the average human might have had by the age of ten.
[15] This is a crucial factor indeed for these kinds of accounts, though it is not the concern of this work to set a threshold to qualify reasonably here.

and beliefs, while all their actions scream unheard and unacknowledged defiance into the face of these beliefs. There seems to be a certain primacy attached to direct perceptual experience, when challenged by beliefs that contradict the experience. Consider the skeptical philosopher (and obviously we are dealing here with a skeptical argument[16]) who despite his fervent denial of having any knowledge of things outside of his own states, will still talk and argue with opponents of his views, will jump out of the way of approaching cars, eat and drink and billions of other little things that betray his inability to act in accordance with his beliefs. His beliefs, it seams, are easily overridden by the direct experience of the needs imposed by his frail body.

As I said, this is not a conclusive argument, but there is an intuitive plausibility to the thesis that in order to really suspend one's trust in the truth-exposing nature of one's direct perceptual experiences, there is need for further direct perceptual experience that is in direct conflict with the other, while merely having a strong belief that conflicts the experiential evidence is not enough. You might tell someone who has all reason to trust your good judgment and goodwill towards him, that a certain object you can see from your position is not in fact a big piano, but a very intricate optical illusion created by an artist, but he won't be able to just take your word on this until he has changed his position enough to experience the truth of what you said.[17]

In the case of the NNRA, matters are going to be more complicated, since it is not immediately clear how to defend some kind of primacy of the joint attentional belief against conflicting beliefs. Since, however further explorations of this specific issue would lead us far away from our actual topic, and we already stated that the NNRA is a very unlikely candidate to explain joint attention for other reasons, which was analyzed here primarily for illustrative purposes, we don't need not venture further in this direction.

But in the light of the last arguments we looked at we can safely conclude that, if Campbell thought that on reductive personal level accounts,[18] being in the respective joint attentional states wasn't enough to provide the rationale for immediate joint action in his sense, he was wrong. Thus, this far we could find little support for Campbell's matter of course rejection of the REAs.

There is of course one further possible interpretation of Campbell's remark, which does not follow as clearly from his above remark. If that reading was plausible, it would indeed be a powerful argument against both of the accounts we investigated here. On this interpretation Campbell rather wanted to deny that with the theoretical framework of these two accounts we couldn't even form the kind of psychological states of joint attention. The most likely argument for this objection is to deny that the epistemic situation on these accounts would allow for the

[16] Although Campbell clearly isn't a sceptic.
[17] Campbell uses a very similar argument to endorse the need for a naive realist account of experience (Campbell 2002: 115).
[18] With exception of the INER as discussed in the prior section.

sub-personal monitoring and control processes to generate personal level psychological states that could carry the rational entitlement necessary to make them truly joint attentional; if only from the perspective of the individual agents. In other words: we couldn't be in experiential states that could confer more certainty onto the agents than they are actually entitled to from an externalist perspective.

We will discuss this argument in the next section together with Campbell's relational account. We have encountered so far no reasons to reject the RE. Only the NNRA seemed to demand too much conceptual sophistication of the agents to be a plausible contender for an analysis of joint attention.

Section I: The Relational Account of Joint Attention and the Non-availability of Joint Attentional States Objection

Unsurprisingly, the only account which passes the litmus test of the *Scenario of Coordinated Attack* in the eyes of John Campbell is the Relational Account of Joint Attention (Campbell 2011: 420). Since the ‚three-way-experiential relation' cannot be faked, but is of such a nature that it offers directly and immediately accessible rational grounds for doing coordinated things, like f.i. shooting the target. As Campbell emphasizes, the sense of rationality provided by this primitive relation is not ‚narrow' (ibid.: 419), which would mean some kind of propositional belief that could serve as a literal *reason* to attack. "It does, however, provide a personal-level conscious state in whose presence the firing would plainly be a good idea" (ibid.). We can of course still introspect this state and thus turn it into a propositional belief, but then the primitive relation that we are experiencing would be the cause of that, and not the other way around. This possibility of introspecting the joint attentional state and thus by implication being able to know one's co-attenders mental state is an important further criterion for an analysis of joint attention to fulfill, and Campbell goes in some length to defend it (Campbell 2002: 167ff.), but for now we don't have to be concerned with these points.[19]

Instead, we will look at how the Relational Account braves the Puzzle of Coordinated attack and then compare it with the REA in order to find out, whether we can attribute any plausibility to the ‚Non-Availability of Joint-Attentional-States-Objection' we unearthed in the last section.

We can distinguish again the two conceptual levels which make the Relational Account such an attractive option in face of the challenge posed by the Scenario of Coordinated Attack. The first level is that, since one can only be in the state of joint attention, if the other is also in that state of joint attention, it provides a *perfect* justification for all actions whose execution presupposes prior identification of a specific item in the shared environment by both parties.

[19] Though we will, as soon as we are talking about the problem of the functional shift in Section C of the fourth chapter.

After all, the state of joint attention effectively links the psychological states of both parties. Simply experiencing something as a joint attention situation leaves no doubt about the experiential state of the co-attender. As soon as the players are individually attending to one of the targets and then further experience their attention to be shared by the other, they have reached the perfect ‚rational ground' to shoot the target, or whatever else joint actions might be appropriate given their current background beliefs about the situation; just like only attention to a ball can provide us the ‚rational grounds' to shoot it in the case of individual attention. The first level is the non-reductive or relational part of Campbell's solution.

The second level is that, since that state of joint attention is also a primitive non-propositional and immediate experience we do not need to reason or reflect at all in order to act on those rational grounds for joint action. Just the same as we do not need to reason or reflect about the existence of a glass of water on the table in order to take a sip from it. The immediate experience of its facticity is enough to provide the ‚rational grounds' for sipping and countless other actions regarding the glass. The second level is the experiential part of Campbell's solution and is also the part that will meet the least amount of resistance. As we had seen, the INER fared very badly in the face of the *Scenario of Coordinated Attack*, and although the NNRA could actually provide rational grounds for joint actions, making it a theoretical possibility, its demand for a high degree of conceptual sophistication of the involved agents made it unlikely at best to be an accurate analysis of *basic* joint attention.

There can be little doubt that - leaving specific conceptual objections against the RA out of the picture for now - it is an ideal candidate to explain joint attention. It is easy to see how the instant availability of the relevant information about being jointly attending on the green target would make it immediately rational for the two players to shoot the target in any ordinary situation. Especially since this ‚information', if it comes in form of the experiential states, is absolutely trustworthy.

The question however that must concern us right now again is about what it is that Campbell thinks the Relational Account can deliver that the REA cannot? We had already seen in the last section that, if Campbell thought that on the REA we *could* achieve joint attentional states that, at least from the individual agents perspective, mirror the experience one has on the Relational Account, then the latter doesn't offer enough of a surplus that would justify the rejection of the REA. The only difference would be that on one account the experience *guarantees* the facticity of being jointly attending, while on the other it is only very probable. However, since these differences aren't likely to be reflected themselves in the experiences or otherwise plausibly affecting the way the agents react to being in these states, it doesn't allow for Campbell's matter of course rejection of the REA. From the subjective perspective it might very well provide just the same kind of rational entitlement for the agents as the Relational

Account. Therefore, we concluded, we now need to find out whether it is plausible for Campbell to hold that the epistemic situation of the agents on the REA wouldn't allow for their sub-personal monitoring processes to generate the kind of joint attentional state needed here.

However, if this is what Campbell had in mind, I fail to see how he could make such an argument work. The task was to develop an analysis of joint attention that allows us to understand the openness of joint attention, the fact that for joint attention to obtain, both agents apparently have to be aware that they are both jointly attending to the same thing. Now in order to deny that such an openness could appear to an individual (even unjustifiably) as part of the primitive experiential but reductive mental states, amounts to little else but the denial that primitive mental states (at least regarding joint attention) could actually convey more information than they are - as matter of fact - entitled to convey. After all, the sub-personal processes that would have to compute on such an account whether it's a good idea or not to induce a joint attentional state given the momentarily obtaining conditions, do only have the same kind of indicators to pick up information that we had seen in the discussion of the INER. And as we had seen, those don't allow to say anything with any necessity about the mental states of the agents exhibiting those indicators. So an experiential state that conveys with the full certainty of experiential states of perception that the other is a co-attender to the same object would convey way more information about the situation than the sub-personal processes that generated it had actually access to. But why should that be a problem at all? There is nothing theoretically impossible about the idea that perceptual experiences could convey more then they ‚should'. Psychology of Vision already has shown plenty of examples where the brain actually completes series of unaligned dots on paper into coherent pictures of figures for instance. While these findings are certainly not directly transferable to the matter at hand, it is by all means not something easily ruled out. And that is what Campbell would have to do in order to make a compelling casem that on a reductive experiential account of joint attention the agents would still have to go through the infinitary inferences of common knowledge in order to know which target to shoot and when.

The interpretation of Campbell's Account of Joint Attention and the further arguments I laid out in this chapter so far didn't say anything about the viability of the Relational Account itself. It only objects to the idea that there must be a necessary connection between the subjective rational entitlement transmitted by experiential states and states of affairs they feature in order to explain how these experiential states could have that warrant. While there is no denying the appeal of Campbell's idea, it is an idea that is neither easily defended nor thwarted. And while this doesn't mean that a Relational Account is not feasible at all, it does mean that Campbell needs either a further argument that tells us why we should think of experiential states of joint attention as non-reductive and infallibly fact relating, or he *needs to find another pressing*

motivation for his Relational Account of Joint Attention besides the *functional role* of joint attention to make joint actions viable options for two or more agents.

Chapter Three: Motivating the Relational Account of Attention

Part One: Riddles from The Theory of Mind

Section A: Introduction

In the second chapter we set up our preliminary understanding of joint attention and investigated Campbell's argument for his Relational Account in some detail. We learned about the Argument from Coordinated Attack and why certain explanatory options are unfit to explain the phenomenon; mostly because many of them seem to demand an implausible notion of common knowledge generated through infinite iterations of knowledge ascriptions. While Campbell seemed undoubtedly justified to reject such conceptions that are based on common knowledge, he could not offer a convincing argument that indeed all other options would demand common knowledge. However, since explanatory exclusivity was the main motivation for proposing the (at least somewhat exotic) Relational Account of Joint Attention, it seems Campbell needs to find something more convincing.

Naturally, there are several further motivations one might have to argue for a Relational Account of Joint attention apart from trying to explain how it could provide the rational grounds for immediate joint actions. The question then that this chapter has to ask is whether there is anything out there in the philosophical world we can only explain in virtue of a Relational Account of Joint Attention. The chapter is divided in two parts: the first one deals with two possible motivations from the Philosophy of Mind, the second one with the possible bearing of the Relational Account on the debate of Collective Intentionality. Unfortunately for Campbell however, the upshot of the chapter will be that none of the here investigated riddles and explanatory proposals depends on giving a relational answer to the mystery of joint attention.

It is only prudent to start the first part of this chapter with ideas forwarded by Campbell himself. Campbell thinks that, with a Relational Account of Joint Attention, we have at the very least the theoretical tools to see through two prominent issues in the Philosophy of Mind: *Berkeley's Puzzle* of how we could know anything more about the world apart from our own ideas about it and second the Nagelian Riddle of *Knowing Other Minds.*

In this section I will argue that Campbell is wrong to think that his Relational Account of Joint Attention could offer a solution to either one of the two issues. The reason that will emerge for that is that in both cases his argument does not depend directly on the Relational Account of Joint Attention. Rather it depends on his conviction that an analysis of the phenomenon of joint attention unequivocally makes need for the Relational Account of Joint Attention, which then in turn would make need for a relational account of perceptual experience in general. It is only in virtue of the more general account of perception that Campbell can tackle these two issues in a

meaningful way. As will become clear, joint attention itself is not involved in the issues at stake. Since however – as we saw in the previous chapter – an analysis of the phenomenon of joint attention contrary to Campbell's conviction does not produce an unambiguous argument for the Relational Account of Joint Attention; it also doesn't provide independent motivation for his Relational Account of Perception. Therefore, we have to conclude that Relational Account of Joint Attention cannot be motivated by its impact on the two mentioned puzzles from the Theory of Mind.

Interestingly enough, in 2002 Campbell still seemed to concur with this reasoning. By then, he held merely that the Relational Account of Joint Attention would be a natural extension of his naive realist account of perception, but that it would neither be implicated in it nor or be a foundation for it (Campbell 2002: 157).

Yet in 2011 he seems to have changed his mind on the topic and proposes that the Relational Account of Joint Attention might actually hold the key to solving Berkeley's Puzzle:

> "I want to propose that reflection on the phenomenon of joint attention suggests a way of thinking of sensory experience that is quite unlike the conception of experience as sensation or the conception of experience as representation. And with that conception of experience in place, we can understand of how it can be that sensory experience could be playing a role in explaining our knowledge of a world of objects independent of us" (Campbell 2011: 424).

So far we are not dealing with a very strong claim here, but then he adds that

> "[i]t is not just that the phenomenon of joint attention seems to be incompatible with Berkeley's conclusion. An analysis of the phenomenon explains what is wrong with the motivation for his position, powerful though it is" (ibid.).

In order to show what is wrong with this claim along the lines of my above sketched argument, the next section of this part will first sketch Campbell's *naïve realist* solution to Berkeley's Puzzle and highlight what makes it such a compelling argument. Section C will contrast that argument with the argument for the Relational Account of Joint Attention. Although similarly structured, the latter will turn out to be significantly less forceful than the argument for Naïve Realism. The concluding section of this chapter will then show why the Relational Account of Joint Attention has no relevance to understand 'What it is like to be a bat'.

As will become clear, the argumentative strategy Campbell uses to have his analysis of joint attention bear on both of the more general problems from the Theory of Mind we are going to look at now, is to make the analysis of joint attention an argument for his account of perceptual experience. There is nothing inherently wrong with such a move. However, it does depend on being able to conclusively reject non-relational responses to the question posed by the phenomenon of joint attention. Since we could show in the second chapter that he clearly overestimated the force of his argument in that regard, we will consequently have to conclude that this attempt must fail as well.

Section B: Naïve Realism and the Argument of Direct Contact

First let us look at how Campbell proposes that the Relational Account of Joint Attention helps us deal with Berkeley's Puzzle. Berkeley's Puzzle, as Campbell plausibly portraits it, is the very unlikely (and also unsatisfactory) result of putting together two intuitions about our perceptual experience that are both individually very plausible and convincing.

The first intuition is that "[o]ur knowledge of the world – our grasp of what objects and properties are in the world, and how the world is configured – depends on our sensory experience of the world. Sensory experience is not just idle in our cognitive lives – it has an epistemic role to play. […] It is only because you have sensory experience of your surroundings, that you know there are such things as tables and chairs, trees and cats, women and men. Without sensory experience you could not even conceive of such things" (Ibid. 422).

Unfortunately, the second intuition is that „[s]ensory experience can, in the first instance, provide you with knowledge only of sensory experience itself. Fundamentally, what sensory experience contributes to your knowledge of the world is perceptual sensations. And the having of sensations can provide you only with knowledge of the perceptual sensations themselves" (Ibid. 422f).

Now, as soon as we have both premises in place, it seems unavoidable, as Campbell points out, that we come to Berkeley's conclusion "[…] that all we can ever know or think about are our own ideas" (ibid. 423). But obviously, that is in direct contradiction with our first intuition that we learn something about the world around us via perceptual experience.

In order to solve this puzzle Campbell's strategy is to deny the validity of our second premise. In the 2011 essay on joint attention he doesn't give much more than the gist of the argument, though. In short, it says that the most common argument to deny the second premise, namely Representationalism, must fail, because it simply presupposes what it tries to explain. Representationalism, as Campbell understands it, is simply the idea that in perceptual experience we are representing the world "as being one way rather than another (ibid. 424)." That would seem promising on a first look, as now we are dealing with representations that somehow must be reliably caused by our environment rather than just mere sensations that don't point to anything but themselves. However, this "[…] simply presupposes our ability to represent the world around, and it doesn't acknowledge the role of experience in explaining how we are able to form concepts relating to our surroundings" (ibid.).

We cannot go into a detailed discussion of the arguments against Representationalism, which Campbell has developed elsewhere with great care (Campbell 2002, 114-131, 132-155; Campbell/Cassam 2014: Pos. 591-1135, especially pos. 1022-1134).[20] It will however prove

[20] And which have been the object of much scrutiny and critique that will not be discussed here. (Schellenberg

beneficial to give some further elaborations of what exactly is his point here against Representationalism, in order to understand why his analysis of joint attention does not fit into the picture the way Campbell would like it to.

The first thing to highlight is that Campbell is convinced that the first intuition must be true. The working premise for his whole argument is that indeed our conscious perception of the world has to explain how we think and reason about the world and the things and states of affairs we encounter in it, namely as mind-independent. This thinking about the world as mind-independent surfaces in the way we use certain "[…] patterns of reasoning that exploit the identities of objects over time, across sensory modality and across persons" (ibid. Pos. 1076). Now, the only way Campbell thinks we could be justified in grasping the perceived objects as the 'semantic foundation' for the patterns of reasoning we constantly employ is in virtue of being directly related to the objects themselves in perceptual experience. Let us call this the 'Argument of Direct Contact'. Simply put, it says that in conscious perception we make direct contact with objects and their respective intrinsic categorical properties, because otherwise conscious experience could play no part in explaining how we reason and think about the things we perceive. We learn about the objects and what and where they are by being ‚related' to those objects themselves. In perception we are not just dealing with ideas or sensations, but with the very objects we are experiencing. It is through direct contact with the objects – that are in certain ways, like circular, solid, conic, orange-colored, dense, creamy that we can form and grasp concepts like circular, conic, orange-colored, etc. – that correspond to the properties we experience. Perceptual experience is constituted by the objects we encounter in the world. Without objects, no experience. Without experience of objects, no concepts or ideas of objects.

This, in a nutshell, is the argument for the Relational Account of Perception and Campbell's "straightforward solution for Berkeley's puzzle". The latter is also called 'Naive Realism'[21], because it implies that, all things being normal, the world is exactly as we experience it. The crucial point here for us is that in Campbell's view, if conscious perception was supposed to play any role in explaining how we think and reason about the world, then it must be relating us directly to the things we encounter in the medium-sized world.

This being said, we are now in a position to understand why he finds Representationalism so entirely unsuited to explain how sensory experience could have any role in justifying the ways we think and reason about the world. In broad strokes, Representationalism in regards to perception amounts to the claim that our perceptual experiences are happening inside our minds and could be just the same whether or not they are veridical or hallucinatory. The main

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forthcoming, Schmitz 2014 forthcoming; Burge 2005 among others)

[21] Not to be mistaken with John Searle 'Direct Realism', which however from the perspective of this work would have to be subsumed under the label of Representationalism.

difference is that in one case the conditions of satisfaction inherent to the perceptual experience are actually satisfied and in the other they are not, yet the experiential content of the perception could be the same regardless. In the good case – the only case relevant for the argument at hand – the perceptual experience is actually caused by something in the world that satisfies those conditions. The trouble now with all of the views following this kind of scheme from the perspective of Campbell is that they do not allow us to make sense of the putative functional role of experience, because the experiential state in the mind is not constitutively linked to the state of affairs in the world. Therefore it cannot provide us with any kind of conceptions of mind-independent objects or their categorical properties.

This objection against representationalist solutions of Berkeley's Puzzle in all its variations is as simple as it is powerful: on any representationalist picture of perception the mind-independence or objectivity of the objects it presents or represents to the consciousness of the viewer will always have to be either part of the representational content itself or somehow attached to the circumstances of the occurring representation. As such it is then always already a matter of the mind and cannot validate the patterns of reasoning we employ when thinking about the medium-sized world. And there seems to be no easy way out for the representationalist. Even trying to understand perception primarily as some kind of primitive and non-conceptual states of being presented with visual scenes, that in an epistemically second step become interpreted by our conceptual representation system, does not offer a solution. Even if the interpretations of the non-conceptual representation by the conceptual representation system seemed to be validated, we would still need to ask how it can be that the primitive non-conceptual representation system presents the world in such a way that we find ourselves justified in reasoning about the world as mind-independent. And then again – however we want to turn or twist it – the representationalist must admit that the non-conceptual states somehow portrait the world as mind-independent (compare Campbell's arguments against McLaughlin's non-conceptual representationalist view (Campbell 2014: Pos. 1052-1084)). Therefore, apparently Representationalism cannot account for any role of conscious perception in explaining why we reason the way we do about the objects we perceive.

This is, of course, no mortal blow against representationalist accounts of perception. Other ways (presumably Kantian ways, see Campbell, Cassam 2014) to account for the origin of our concepts of objects as mind-independent are certainly possible and maybe even plausible. However, on these accounts, consciousness is irrelevant to explaining and justifying our grasp of concepts of the world. And as soon as the Representationalist wants to acknowledge any such role for consciousness, he is bound to get into trouble.[22]

[22] Yet, one might think that this argument puts significant pressure on representationalists to account for the

Section C: The Unavailability of the Argument of Direct Contact for Joint Attention

Now that we understand the broad strokes of Campbell's argument against Representationalism as a general theory of perception, we can also see why his argument for the Relational Account of Joint Attention cannot be motivated by its impact or contribution, however indirect, on solving Berkeley's Puzzle.

The first thing to become clear about is just how much the two arguments differ in force. We can see that the setup for both of the arguments is very similar. Both start out by assigning a very clear functional role to having the conscious experience of either objects in the medium-sized world or the fact of jointly attending to one of those objects, but the types of functional roles for the two phenomena are very different.

In the case of conscious perception, its functional role is to provide us with the rational grounds that allow us to learn about the medium-sized world, its objects and their properties, so we can conceptualize them, i.e. to justify the patterns of reasoning we employ regarding the things we perceive; in the case of joint attention it is to provide us with the rational grounds to engage in immediate joint actions regarding the object that is being jointly attended to. The point that I am going to make right now is this: Campbell's argument for the Relational Account of Joint Attention, i.e. why he believes that representationalist pictures (most relevantly the REA) do not allow for joint attention's functional role, misses precisely the element that makes his objection against Representationalism regarding Perception so compelling: The Argument of Direct Contact.

P1. Conscious perception has to play a part in explaining why we think about the things encountered in perception as mind-independent entities.

P2. To fulfill this functional role, conscious perception must be constitutively linked to the categorical properties of the objects, otherwise mind-independence and other categorical properties must be concepts imposed on causal triggers and could not be gleaned from conscious perception of things.

C1. Therefore, in conscious perception we must be in direct contact with the very properties we perceive the objects to be having.

P3. Representationalist views of perception hold that conscious perceptions could be the same whether they are veridical or hallucinatory.

C2. Therefore the representations are not constitutively linked to any categorical properties (no direct contact, we are dealing with mind-made presentations of the objects we seem to perceive, not with objects themselves).

C3. For Representationalists, conscious perception can play no role in explaining the origin of our reasoning about the world as mind-independent.

C4. We need a non-representational account of perception, i.e. The Relational Account of Perception.

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role of consciousness in our reasoning about the world. After all, as Campbell says pointedly, the fact that our perception is in large parts conscious is rather unlikely to have no functional reason at all.

As we can see, the whole argument hinges on the idea that perceptual experience apparently gives us something, namely the raw material (the world and its objects), which could incite us to form the concepts of mind-independence, roundness, hardness etc. As it turns out, the only way it could give us that is by having us make mental contact with those objects that are mind-independent, round, rough etc. Representationalism cannot give us this kind of access to the world; on the contrary, it depends on imposing the very concepts, or their non-conceptual precursors that conscious experience was supposed to ground into the very conscious experience itself.

However, in the case of joint attention, Campbell does not have the equivalent of the *Argument of Direct Contact*: Naturally, the idea here is as well that jointly attending is supposed to give us something that it could give us only from the perspective of the Relational Account. As we had seen, in this case the ‚something' is supposed to be the rational ground for engaging in immediate joint action regarding the object that is jointly attended to. However, in this argument, the role of conscious experience is such that it is still as relevant for a full analysis of joint attention, even if we do not have 'direct contact' or constitutive experiential ties to the states of affairs in the world. The reason for this is that – at least the way Campbell set up his argument – we need conscious experience not only for epistemic reasons but also for pragmatic ones. This will become immediately clear, when we look at the relevant parts of his argument for the Relational Account of Joint Attention.

P1: Joint Attention is the phenomenon of two or more people attending to the same object in their environment, which as a state of affairs must be ‚out in the open' between them to qualify as fully joint attentional.

P2: This openness has the functional role to provide us with the rational grounds for immediate joint action regarding the object of joint attention.

P3: Joint attention must be analyzed in terms of the mental state of the attendants.

C1: In order to fulfill the functional role, the openness must be characterized as a conscious level mental state

C2: Therefore we can exclude theoretical options that seek to explain joint attention as purely sub-personal processes from our list of plausible candidates.

P4: Explaining the openness in terms of mutually ascribed states of knowledge leads to the familiar problems from the discussion of common knowledge.

C3: The openness could not plausibly be a form of common knowledge.

P5: The Relational Account of Joint Attention offers a way to describe the openness as conscious level experiential state that does not depend on (successful) infinitary mutual knowledge ascription.

P6: Reductive experiential accounts of joint attention (i.e. some form of non-conceptual representationalism) would always need to confirm their experience of joint attention by means of infinitary knowledge ascription.

C4: Therefore the Relational Account of Joint Attention is the only plausible account of joint attention.

As I have argued in some length in the second chapter, Campbell is mistaken about P6 and thereby, too, about C4. In the case of ordinary perception, our perceptions of categorical properties might be just the exercise of certain representational processes, which could however be triggered by a variety of causal factors that do not necessarily link representational content and the represented object. Similarly could the fact of jointly attending be a reductive conscious experience *and* do the necessary work for us: provide us with the rational ground to act jointly. Yet, unlike the case of ordinary perception, the reductiveness of the psychological states of the attendants on such an account does not dispense with the need for it to be a conscious experience. Thus, telling a (non-conceptual) representationalist story about the phenomenon of joint attention – however one might want flesh out such an account – is not only possible, it also does not force the representationalist to answer any further inconvenient questions about the origin of our concepts or the role of conscious experience for our cognitive lives.[23]

We can thus conclude on behalf of the Representationalist that there is nothing about the phenomenon of joint attention that inherently makes a case for Naive Realism as envisioned by Campbell, and thereby it also does not impact the questions raised by Berkeley's Puzzle in any straightforward manner. But we have not yet talked about the way Campbell thinks his analysis of joint attention affects the problems arising from Nagel's famous treatise on "What is it like to be a bat" (Nagel 1974). As we will see, the same point as regarding Berkeley's Puzzle applies here: joint attention really affects the problem only insofar as it allows to make a decisive point for a general Naive Realist picture of perception, and thus is not relevant at all.

[23] Though undoubtedly for the latter it suggests itself to think of its functional role primarily relevant for pragmatic decision-making. Though that would still mean to acknowledge the rather counter-intuitive implication of denying its epistemic role.

Section D: The Irrelevance of Joint Attention to Imagine What a Bat Perceives

Campbell's short discussion of what we can know about the mental life of a bat and the entailed critique of Internalism is embedded in a more extended treatment of the question whether and how joint attention could be the foundation for our knowledge of other minds. The idea that Campbell argues for is, simply put, that whatever we may get to know about the different mental states of others and causal relations that hold between them, "[t]there is no such thing as coming to grasp another person's perspective on the world without having first identified which thing it is the person is attending to" (Campbell 2011: 426). It is only in virtue of knowing *what* the other person (or even the bat) is perceiving that we get an understanding of how the other person is perceiving the world at all. Additionally, as Campbell points out, that might be about as much as we can say about what it is like to be person X or an animal Y. The point against Nagel then is that alone is already a lot more interesting than being unable to say at all what it is like to be for instance a bat. Now all this is agreeable enough in my eyes. However, what remains a mystery to me in Campbell's argument is the role that joint attention is to play in facilitating this kind of knowledge. I want to argue that it plays no role at all, and certainly none that could only be fulfilled by a relational account of joint attention.

Campbell's argument goes like this: First, he holds that the Relational Account of Joint Attention is (merely) extensional (ibid. 424). Thereby he means that in its most primitive form all that experiencing joint attention conveys to the two attendants, i.e. what they can learn though introspection of their experience, are the facts about who they are jointly attending with to what. They can learn that it is them and the other attending to the very same thing, but not much more about how the other perceives the thing; that his or her perspective is different to one's own. That is the basic level of insight we get from joint attention. Further mind-reading capacities, however one might want to cash them out, like learning about different perspectives that people can have on one and the same object, then are skills that build on top of the basic capacity for joint attention. Campbell backs that up by citing studies by Moll and Metzloff that show how children's perspective-taking-abilities evolve in steps from the basic 'sharing of perspectives' through joint attention in infants, to the full blown capability of confronting perspectives on singular objects (ibid. 426).

For Campbell, the whole point of going through this is to show that our ability (as healthy grown up humans) to think about and imagine how someone else is perceiving a given scene is rooted in our base ability to identify what object(s) the person would be seeing, which we developed as infants via basic joint attention. Presumably, this would be the link to the original discussion about joint attention, when he then goes on to discuss the perspective taking exercise we routinely engage in, which then is supposed to take away the force of Nagel's

argument. I will get back to that link in a minute. His next step is to argue that this kind of perspective taking is actually an "[…] 'externalist', or real world, exercise" (ibid.). He does so by having the reader imagine he was a stage designer. The stage designer is also trying to imagine how the stage set he is designing might be perceived from the auditorium. The only way he could undertake this task, goes the argument, is by looking at the actual stage set it self and think about how ‚it' might look from different vantage points in the room. Any such perspective taking is about the real world, about the things we encounter in the world. What a stage designer would not and could not do is imagine the effect of the stage set on the purely inner life of the imagined audience. Campbell's point is that as an internalist exercise, where the real world layout of things doesn't play any role at all besides being a ‚causal prod' to generate inner experiences, this might very well be an impossible task (ibid.). We cannot even begin to fathom what it is like for someone else to have the same sensations as one self, if we leave the real world out of the picture. Maybe all the reds seem green to him, and what is hard is experienced the way we experience something soft. And obviously this not what we normally do when we imagine another's perception of things. What we do instead is imagine the "[…] set itself and the audience's experiential relation to the set itself" (ibid. 427). And in doing so "[t]he external thing and its qualitative characteristics are taken as an external given, and then you ask about how that very thing, with those particular qualitative characteristics, will be experienced from different points of view" (ibid. 428).

By acknowledging this we are also ready to understand Campbell's critique of Nagel's famous claim that for all we could ever know about the surroundings of a bat, we could never know about what seems to be simultaneously "[…] the most intriguing and elusive: What it's like to be a bat (ibid.)." The way Nagel puts it, we are once again dealing with a purely Internalist exercise. All that is important and truly elusive are the internal ‚seemings' of the bat. Since Nagel's idea of conscious experience is completely independent of the environment, knowledge about the environment is not going to help us to know how it ‚seems' to be for the bat. Conversely, on Campbell's picture, we still cannot say much about the internal ‚seemings' of the bat, but because conscious perceptual experience for him is constituted by the very things we perceive, knowledge of the bat's surroundings goes a long way to knowing about its mental life, too. Accordingly, the biggest "[…] problem we have with bats is that we don't, in our real-time live encounters with them, know what they are attending to" (ibid). We are in fact so biologically different, that a lot of what bats are attending to is outside of the perceptual range of ordinary humans. "Therefore, it is not possible for us to engage in the three-place experiential relation of *co-attention* with the bat [my emphasis]" (ibid.).

Note that here he is suddenly talking about co-attention as in joint attention. I don't contest the fact that it seems near impossible to ever engage in joint attention with a bat. Yet, what

completely eludes me, is why we would need joint attention at all to imagine *what* a bat would be experiencing in the sense of Campbell's externalist exercise. Campbell himself admits that "[…] joint attention is not always needed, to know how someone else is experiencing, say, the stage set (Ibid.)." But that is an understatement at best. Remember, the mystery of joint attention, which Campbell thought needed a relational response, was to account for the ominous openness that holds between the agents jointly attending. Thus, in order to show that Nagel's riddle of consciousness could be solved by giving a Relational Account of Joint Attention, Campbell would have to make visible that only the openness as conceived by the Relational Account of Joint Attention would allow us to imagine what the bat is perceiving. But as it looks we actually don't need joint attention for that at all. After all, why would the bat need to be aware of the fact that someone is attending to the same things as it does in order to allow this observer to perceive those things? We might need the capability to follow the attention of the bat, which of course is hard enough to attain (very improbable indeed), but we would not need that to be 'out in the open' between us and the bat. In fact, as a naïve realist and externalist it seems we would not even need the capacity to attend to the bats attention, as we could simply posit its attention to different things that we perceive for our exercise. So not only do we not need joint attention in a relational sense, we also don't need joint attention in a general sense, maybe not even the capacity for attention following. All we need is to be an externalist about perception.[24]

As it seems there is no direct bearing of Campbell's argument for the Relational Account of Joint Attention onto the question of 'what it is like to for someone else (or a bat) to experience something'. And therefore we can safely conclude that we also cannot motivate the Relational Account by the answers it provides for those matters, as it doesn't provide any. The only way it could have had such a bearing would have been, if there were certain insights into another's mind we could only have a.) in virtue of being in joint attention with someone else, and b.) if *that* joint attention could only be attained according to the Relational Account. Since all the insight we would need in order to make sense of someone else's perspective, on Campbell's picture, is to know what it is he is attending to, neither a.) nor b:) are fulfilled. The utmost that both the elaborations on Berkeley's Puzzle and Nagel's Internalism could do to motivate the Relational Account of Joint Attention is to provide arguments for a relational theory of

[24] Although, however further the externalist imagination exercise might go in to helping us understand "What it is like to be a bat", it misses completely the point of Nagel's paper, namely: to highlight the difficulty we have to account for the subjective character of consciousness with the reductive methods we use to account for the physical facts of the world. It will take more to address that issue thoroughly than merely subscribing to a naïve realist picture of perception, unless the latter implied the complete denial of an important subjective aspect of consciousness.

perception.[25] The latter than in turn could possibly motivate the Relational Account of Attention, but certainly not the other way around.

Chapter Three, Part Two: Joint Attention and Collective Intentionality

Section A: Introduction

Since we have so far encountered few reasons to motivate the Relational Account of Joint Attention in a necessary way, we might want to draw the circle of our investigation a little wider. In the Theory of Collective Intentionality and of Collective actions we could observe an interesting trend lately: the trend to try to explain collective intentionality in terms of relational accounts. Accounts, thus, that on the surface of it might even implicate dependence on a Relational Account of Joint Attention and/or the related theory of mind.[26] Undoubtedly, collective actions that would depend directly on the Relational Account of Joint Attention are only going to account for a limited amount of what could be considered the realm of collective intentions, since joint attention is itself necessary only for limited amount of collective actions. We can therefore narrow our investigation down to those kinds of accounts dealing with collective intentionality that are focused on joint actions; in contrast to such that might be focused on collective intentionality involved in instantiating social facts like norms, currencies and other social institutions. Remember, that Campbell set up his account of joint attention basically as a way to instant-rationalize joint actions in virtue of a primitive experiential state. That might further incite one to see a connection to the Theory of Collective Intentionality.

A careful analysis, however, will show that any hopes that the Relational Account of Joint Attention could maybe lend more plausibility to relational accounts of collective intentionality, or provide deep insights into how humans share intentions, are misplaced. While we will find nothing that directly contradicts its general viability, relational accounts of collective intentionality do not depend on non-reductive analyses of joint-attention. On the contrary, the insights gained from a close look at the kind of intentions involved in 'small-scale-egalitarian actions' (Pacherie 2011), will make the kind of action-grounding rationality Campbell apparently thinks joint attention needs to deliver seem a little overblown in comparison.

In order to ensure a solid evaluation and to make up for the lack of background information on the debate of collective intentionality, this part of the third chapter will need to follow a wider path to its conclusion. The remainder of it is comprised of four further sections. The first one will introduce the reader to the central question of the debate on collective intentionality and John Searle's proposal to answer that question. By highlighting the central issue of that

[25] But that is not the topic of this work.
[26] Hans Bernhard Schmid thankfully alerted me to the possible bearing of Campbell's account on this debate during an intense seminar discussion on a very early draft of this work at the end of last spring's semester.

proposal we will then be in a position to understand better the motivation to give a relational account of collective intentionality. Michael Bratman's analysis of 'shared intentionality' will serve as a paradigmatic example for such a relational view in section C. Having the necessary background understanding firmly in place, section D will then dive into the highly intricate mechanics between certain biological and psychological capacities, which according to Elisabeth Pacherie's Bratman-inspired account, allow us to share our intentions in action. The last section will then revisit the *Scenario of Coordinated Attack* in the light of Pacherie's analysis, which will significantly diminish its persuasive power in regards to the Relational Account of Joint Attention.

Section B: Collective Intentionality and the Problem with We-Mode Analyses

The Theory of Collective Intentionality tries to analyze how people can actually share intentions and do things together. Herein ‚intentions' may refer to intentions in the ordinary sense of a concrete intention to do something (together) or as well to the philosophical term coined by Franz Brentano at the end of the 19th century to capture the 'aboutness' of the mind; the stunning feature of our consciousness to always be about something, directed at an object or a state of affairs, always representing, presenting something or the other (see Jacobs 2014). So we are talking about conscious mental states here, mostly beliefs, desires and of course intentions to do things. The powerful intuition that carries the discussion is that there is something profoundly different between, for instance, two people just coincidently walking next to each other and the same two people going for a walk together. The observable physical actions of the two might be almost indistinguishable[27], and yet the two cases are clearly different. It is surmised that our capability to engage in these forms of basic collective intentionality lies at the foundation of more complex human phenomena like language and other physical and non-physical institutions. But how do collective intentions differ from individual intentions? That is the big question of that debate.

The first question that we have to answer is what it is about collective intentionality that could make one want to give a relational analysis of its features and what that means in this context. Just as in the case of joint attention we are going to focus on the cognitive aspects first and wonder what has to go on in terms of the mental states of the agents for basic collective intentionality to occur. Relational analyses of collective intentionality arise mostly as a way to evade either of two big horns in the ongoing debate on collective intentionality:

One of the horns is an issue that first got discussed in form of John Searle's critique of

[27] One might suspect that an attentive observant would always be able to pick up on subtle micro behaviours that give away those being there together. But imagine the case of two people whose very intention is not to be perceived as acting together.

reductive accounts of collective intentionality. He thought that while there is an internal difference between collective and individual intentionality, we could not account for it by analyzing it as a summation of individual intentions, f.i. the kind of mutual beliefs or knowledge the agents have about what they are doing. In Searle's eyes this cannot capture the crucial aspects of cooperation and coordination inherent to collective intentionality.[28] In order not to fall into the trap of reductive analyses, he postulated that collective intentionality is rather comprised of a unique kind of intentions: we-intentions.

The problem is that the rejection of reductive explanations *prima facie* might lead to embrace the apparent opposite idea then, namely that collective intentionality would be the intentionality of the collective itself. On such a view collective intentionality uniquely pertains to the collective subject as an entity *sui generis* or some kind of Hegelian ‚group spirit'. Conceived like this, collective intentionality would be truly a primitive form of intentionality that is more than just an assembly of other kinds of intentionality (like molecules are assembled of atoms). However for Searle as much as for most of his contemporary fellow philosophers, even those that disagree with him regarding the first horn, such an entity is little less than the ever-luring nemesis of the whole debate; mostly because of its vague association with collectivist and totalitarian thought (Schmid 2009: 393). Accordingly, philosophers of collective intentionality show what otherwise would be a rather surprising unity in their undivided ascription to *Methodological Individualism,* the idea that all intentionality must reside firmly in the heads of individuals.

Following Pacherie (2009), we can say that evading both of these horns constrains one's options to capture the specialness of collective intentions to three possibilities: They are either special because of

1. Their content
2. The subject or bearer of the intentions in a way that is in line with methodological individualism
3. The psychological mode of the intentions (compare Pacherie 2009: 156f).

While these options are not necessarily mutually exclusive (ibid.) we will first focus on the third option. The easiest way to understand the attraction of relational accounts of collective intentionality is by understanding the kind of problems associated with choosing number three. This would be the preferred option of John Searle. He is not only adamant about his ascription to Methodological Individualism to ward off the threat of the 'group-spirit'. Furthermore, he

[28] Searle's famous illustration for the inadequateness of such conceptions is about a couple of young business men that have all been swayed by Adam Smith's idea that, by maximizing their own interests, they are going to do what is best for the rest of the world. So they are all individually driven to create a better world, they share the same goal and beliefs about how to achieve it; but none of that implies collective intentionality in any way. They lack the intention to cooperate.

wants his conception to fully accommodate *Internalism,* so that it is "[...] consistent with the fact that the structure of any individual's intentionality has to be independent of the fact of whether or not he is getting things right, whether or not he is radically mistaken about what is actually occurring" (Searle 1990: 406). Since he is also troubled by option 1,[29] the only way for him to describe collective intentionality is as a different psychological mode, as we-mode-intentions. So for Searle, whenever we engage in joint or coordinated kind of behaviors, we are intending in a different modus of intentionality that makes reference to the collective (which accommodates the constraint of methodological individualism) and may even make 'purported reference' to other individuals in the collective "independent of whether or not there are actually other members "(Pacherie 2009: 407) (which accommodates the Internalism constraint).

Now it is relatively uncontroversial in the debate that it is indeed his adherence to Internalism that makes Searle's conception of we-intentions problematic. He himself admitted that his account allows for a peculiar kind of mistake that goes beyond merely not meeting the conditions of satisfaction of an intentional state. Namely, it is possible to be mistaken about what it is one is doing. For instance one could take oneself to be pushing a car as part of a collective intention to push the car, while actually there is no one else (ibid. 408). That is not just a mistake in form of a mistaken belief about someone else purportedly being there, pushing along with oneself. Pushing as a part of a we-intention is a radically different action for Searle than doing the same pushing as an I-intention. In his own eyes that would violate Descartes' intuition that we cannot be mistaken about our own intentions (Searle 1998b: 150). While Searle himself seems unperturbed by this admission, others are more concerned:

As Pacherie points out, "[f]or Searle's analysis to be consistent with internalism it would have to be the case that a brain in vat can have genuine collective intentions, not just it can think [sic!] it has" (Pacherie 2009: 161). A brain in a vat could obviously have genuine I-intentions all by itself, no matter how wrong the references to the purported objects of the intentions are. I-intentions are consistent with Internalism. However, if the brain in a vat can be mistaken about its we-intentions being we-intentions, that shows that it cannot we-intend on its own. Ergo, Searle's proposal cannot accommodate Internalism. Hans Bernhard Schmid illustrates the seriousness of this challenge for Searle's account by asking, what it would actually take for a brain in vat to be genuinely we-intending (Schmid 2009: 401). He has us imagine the case of a

[29] He finds it unlikely that we-intentions were special, because they comprise I-intentions that are related internally in a cooperative way to the we-intention. Because that would mean that any we-intention would never be complete without a complementary I-intention to do one's part for the we-intention and thus any we-intentions depends at least on one further I-intention. He furthermore worries about the plausibility of the we-intention bringing about I-intentions, without the we-intention including a further intention to bring about the the complementary I-intention, yet he remains vague on the reasons for his worries (see discussion in Pacherie 2009: 407f).

newly vatted brain, 'Anna', that is being held under the hallucinatory experience of being jointly regarding a picture in the museum with her best friend. Schmid suggests that even connecting her best friend 'Berta's' brain to another vat in such a way that Berta, too, has the intention to be jointly regarding the same picture with Anna, wouldn't be enough to make their intentionality genuinely collective (Ibid. 402.). As he says, it would be very implausible to claim that the two brains in a vat would suddenly have genuine collective intentionality only because they are coincidently and independently having complementary illusions (ibid.). What would rather be needed is explained by Schmid in a footnote: the two BIVs would have to be connected and rooted to each other in such a way that each perceives the other to be doing what the other is hallucinating to be doing, just like in the matrix (ibid. 405). This is very telling, because e*ven brains in vat apparently have to be internally really related to each other and their mutual illusion in order for us to accept that they are having collective intentionality*.

Therefore, we can conclude that trying to capture the nature of collective intentionality in terms of the psychological mode alone is incompatible with a radical Internalism. A strong commitment to the idea of a psychological we-mode thus might lead one on a path to accept at least the underlying principles of Campbell's account of joint attention, which are, as we had seen in the last chapter, profoundly anti-internalist. Unfortunately, since that would make our discussion here much easier, relational accounts of collective intentionality do *not* dispense with Internalism in any necessary way. The problem of Searle's account on my reading is not primarily Internalism, but rather that in combination with the ‚we-mode-thesis' it doesn't allow for the agents to have genuine (collective) intentions under circumstances of illusion. As I will show now, *that* is not a problem for relational accounts of collective intentionality. There are three obvious ways to deal with this problem.

1. Soothe out Internalism and we-mode-thesis by either
   a.) declaring the latter a special case of subject mode that unlike ‚I-mode' has external truth-conditions or
   b.) trying to show we can actually be mistaken in a similar way about our I-intentions as we can allegedly be about our we-intentions.

2. Reject Internalism and embrace the we-mode-thesis in combination with some form of relational account

3. Reject the we-mode-thesis in favor of a relational account of collective intentionality that doesn't depend on a rejection of Internalism.

For the following discussion I'm going to treat first option as a non-option. While I believe that 1.a might be feasible, showing this feasibility is the task of the respective accounts and leaves scope and topic of this work far beyond. Option 1.b, essentially Searle's own solution, I find fairly implausible: all of his example merely show that *in reflection* we might misinterpret the content of our intentions, but not that we actually mistake ourselves for someone else. The intentions we

are mistaken about are still always our own intentions (see Searle 1998a: S. 69ff.).

Instead I'm going to focus on an account that chooses option 3. I will use it in the last section to illustrate how severely limited the functional role is that the Relational Account of Joint Attention could play, even for an explicitly relational view of collective intentionality in action. A good example of an account of collective intentionality that is both relational and neutral regarding the issue of Internalism stems from Elisabeth Pacherie. Her proposal is closely inspired by another seminal work in the field of Collective Intentionality, Michael Bratman's account of shared we-intentions. To get a better grasp of her account and some of the issues associated with its conception, we will first have a quick look at Bratman's proposal.

Section C: Shared Intentions: Bratman's Relational Account of Collective Intentionality

Unlike Searle, Bratman believes that a non-circular reductive account of joint attention is possible. Bratman's account seeks to understand collective intentionality as something of a mix between the first two theoretical possibilities we sketched above in section B. What makes we-intentions special for Bratman is both their content *and* the bearer of the intentionality. He holds that three distinctive features must come together in order for us to speak of proper we-intentionality:

The agents must be responsive to each other's intentions, they need to be committed to the joint activity and they need to be prepared to support the other's efforts regarding the joint goal (see Pacherie 2009: 162). Since exhibition of only one of these features, or only two of them together is not enough to talk of genuinely ‚shared intentionality', as Bratman calls it, he needs to ensure the non-circularity of his conception.

He achieves non-circularity by claiming that commitment to a joint activity doesn't imply further commitment to *cooperate* regarding that activity. Thus, for Bratman it is possible for instance, that I commit to go to the police station with you without, intending to cooperate with you in going there. My commitment to arrive there with you mustn't mean that I will help you get there, should any obstacles arise for you to get there. Otherwise that commitment to the joint activity would obviously presuppose cooperation and therefore couldn't explain shared intentionality as reductive phenomenon firmly rooted in the conscious intentionality of individuals as opposed to in some unspecified biological background capacity[30].

In order to really share the intention we must both intend to go the police station in virtue of having meshing sub-plans to go there, for instance me driving the car, while you shoot at the villainous pursuers at out tails. Lastly, we must both be prepared to help each other to fulfill our respective sub-plans. Our intentions must be interlocking. While they do not necessarily have to

[30] A further objection against Searle's account of we-intentions we have not discussed in this work. For a detailed critique see Pacherie 2009: 161f.

depend on each other, they may not conflict. So it is not a problem if your sub-plan to get there involves shooting our pursuers dead, or merely wounding them. But if your sub-plan is to drive the car yourself, your sub-plan doesn't mesh with my sub-plan, which is also to drive the car and we would need to coordinate, because only one can drive the car.

So on Bratman's account of shared intentionality all the intentionality is rooted firmly in the heads of individuals, but since the content of this intentionality makes reference to the intentions of the others involved in the joint activity, shared intentionality cannot be attained by individuals. For shared intentionality to be achieved, we must be related to the intentions of the others. Of course it is possible on this account that a brain in vat has intentions that make references to intentions that are only purportedly intentions of others. And while that doesn't qualify as genuine shared intentionality, because, there is no one there to share the intentions with, it doesn't create problems for Internalism, as the mistake displays only normal intentionality not meeting its conditions of satisfaction.

While we are not going much further into the details of his analysis, I need to mention the most severe criticism that Bratman's account faces, which arise from the way he analyzes the meshing of intentions, namely:

Where J is a cooperatively neutral joint-act type, our J-ing is a shared cooperative activity only if:

> **(1) (a) (i)** I intend that we J.
>
> **(1) (a) (ii)** I intend that we J in accordance with and because of meshing sub-plans of (1) (a) (i) and (1) (b) (i).
>
> **(1) (b) (i)** You intend that we J.
>
> **(1) (b) (ii)** You intend that we J in accordance with and because of meshing sub-plans of (1)(a) (i) and (1) (b) (i).
>
> **(1) (c)** The intentions in (1) (a) and (1) (b) are minimally cooperatively stable.
>
> **(2)** It is common knowledge between us that (1) (Bratman 1992: 338)

What troubles many commentators is that (1) (a) (i) seems quite a presumptuous intention to have. It might seem questionable whether on the one hand we could intend anything more than our own intentions (Pacherie 2009: 163) and on the other hand – provided that we could, – whether that doesn't presuppose a genuine we-intention beforehand (Schmid 2009: 396). However, to be fair to Bratman he does conceive this as some form of planning intention that builds on an implicit prognosis of a favorable reception of his intention to J by who ever else he wants to J with. Not unalike to his (Bratman's) firm planning-intention to go gardening today, which depends on the implicit expectance of favorable weather conditions. As Bratman says, he may fully assume he is going to go gardening, but if it unexpectedly starts to rain, he may simply

change his intention based on the circumstances (Bratman 2009: 349). His intention that we J, merely assumes that it is *one causal factor* in making you want to form a similar intention to J with him, but not a determining factor. Thus it does not dispense for the others to voluntarily form their own intention of the form „I intend that we J."

However one decides to stand on these matters, it turns out that Pacherie isn't all too concerned about these objections. Instead, she focuses on the fact that the notion of common knowledge seems difficult to satisfy, (rightly so, if we remember our discussion in the second chapter). Certainly it would demand a fully developed capacity for speech. So even if we granted that Bratman's conception was a plausible conception of collective intentionality it is hard to believe it could be the most basic one. Especially if we take into account that for instance for Searle collective intentionality should be the primitive (and biological background capacity), which we share with many animals, which only in a second step enables us to institutionalize language.

Furthermore, Bratman's conception seems to cover only a very specific and sophisticated kind of collective intentionality with "[...] future-directed intentions that involve rational deliberation and conscious planning. [Which] also requires that the participating agents have concepts of mental states and meta-representational capacities, since they must have intentions in favor [sic!] of the efficacy of their own intentions and of the intentions of others" (Pacherie 2009: 166).

Section D: Collective Intentions in Action and the Role of Joint Attention

In contrast to both of these proposals, – Searle's pushing back of collective intentionality into the realm of pre-conscious biological background capacities, and Bratman's high-level planning conception, – Pacherie believes that there are forms of base-level collective intentionality, whose mechanisms we can specify "at least partly in psychological terms rather than directly in biological terms" (ibid. 167). Her findings of what specific capacities actually enable us to engage in collective intentionality regarding 'small-scale egalitarian actions' will prove to be very illuminating regarding the question of what kind of role the Relational Account of Joint Attention could play in collective intentionality.

Two things are noteworthy to remember here:

First, true to her Bratmanian roots, Pacherie is giving what she considers a genuinely relational account of collective intentionality. It is relational in the sense that true collective intentionality arises only from the interdependent meshing of intentions of the agents. Second, we need to remember what were the benefits of the Relational Account of Joint Attention as proposed by Campbell, namely to give our reflective consciousness access to a piece of quasi-indubitable information about the occurrent psychological state of attention of one's co-attender. Even unreflected the experiential state supposedly warrants immediate joint action regarding the object of joint attention. One could say it provides a direct cognitive link between the mental states of the involved, even if only regarding the object of attention and *the fact of his attention being co-attentional.* For what follows let us assume that this was indeed the right way to analyze joint attention, that it was the only way we could attain this piece of necessary information as common ground for joint endeavors without falling in the trap of infinitary knowledge generation. The last section will show that if we accepted that the relational Account of Joint Attention was the only way we could establish the common ground needed for joint action, then it seems almost impossible to imagine how we could establish some of the further mutual manifestness necessary for coordinating joint actions.

Pacherie sums up her view regarding small-scale, egalitarian actions as follows:

> "In face-to-face interactions the coordination of individual actions in the pursuit of a joint goal is made possible in large part by various forms of exploitation of perceptual information. Thus, joint attention mechanisms use perceptual information to determine what is and what is not common perceptual ground among co-actors while motor resonance mechanisms and teleological reasoning use perceptual information about the actions others are performing and situational constraints to infer their goals and future actions and predict their consequences" (Pacherie 2011: 364).

On the intentional level she analyzes how joint actions could unfold over time as a ‚three-tiered hierarchy' of shared distal, shared proximal and coupled motor intentions and their corresponding control processes (ibid. 353). Her basic assumption is that a similar hierarchy of

intentions, – albeit a little more complex, – applies to collective actions as it applies to individual actions.

By distal intentions she refers to planning intentions of the kind we met in Bratman's conception of shared intentionality, while proximal intentions are intentions that are happening ‚online' or *in action*. Coupled motor intentions refer to low-level intentions governing motor-control for actions needing tightly synchronized body movements, for instance in couple dancing or making music as a band or an orchestra etc.[31] Most relevant for us will be the part about proximal intentions as this is where joint attention has to play its crucial part.

Regardless, we will quickly revisit what Pacherie believes shared distal intentions to be: just like individual distal intentions they have to represent the (shared) over-all goal and our plan to achieve the goal, only that the shared intentions represent one's own sub-plans and the ‚meshing plans' of the others. Albeit in both cases Pacherie holds that it is not necessary to really know right away the whole plan and/or each of the other's sub-plans. Rather the goal is seen as committing the agents in both cases "[…] to form a plan that meets means-ends-consistency demands" (ibid. 353). In the plural case that means it commits the agents to some form of coordinated planning by means of a 'triadic adjustment' of their respective intentions regarding the shared goal that must be fueled by their understanding of the efficaciousness of those joint intentions (ibid.). Spelled out like that it undoubtedly seems like a cognitive demanding task. Even if we assume that basic meshing of sub-plans in shared distal intentions happens usually through verbalized communications that alone can hardly explain how all the involved agents attain all the necessary knowledge. Not all of it will ordinary be directly verbalized or otherwise communicated. The standard answer given here is that the ‚rest' is up to our ‚mind reading-skills', which are then cashed out in variations of either the theory-theory or the simulationalist-theory.

Pacherie clearly favors the simulationalist approach and would replace Bratman's requirement of common knowledge with the weaker requirement of ‚mutual assumptions' (Pacherie 2009: 171f.). How this is supposed to work becomes clear from the way she describes the role of shared proximal intentions and their underlying processes.

While shared distal intentions of such complexity may not be involved in all forms of small-scale egalitarian actions, shared proximal intentions certainly are, as they are what makes it possible to tie in shared distal intentions to specific situations of action and coordinate sub-actions towards the goal.

In order to speak of genuine shared proximal intentions, a complex set of conditions needs to obtain:

[31] I will not discuss coupled motor intentions in this work, because it isn't relevant to our question at hand. This does not mean that they don't belong into complete account of shared proximal intention as given by Pacherie.

> "(1) agents each represent their own actions and their predicted consequences in the situation at hand (*self-predictions*), (2) agents each represent the actions, goals, motor and proximal intentions of their coagents and their consequences (*other predictions)*, (3) agents each represent how what they are doing affects what others are doing and vice-versa and adjust their actions accordingly (*dyadic adjustment)*, (4) agents each have a representation (which may be only partial) of the hierarchy of situated goals and desired states culminating in the overall joint goal (*joint action plan*), (5) agents each predict the joint effects of their own and others' actions (*joint predictions*), and (6) agents use joint predictions to monitor progress towards the joint goal and decide on their next moves, including moves that may involve helping others achieve their contributions to the joint goal (*triadic adjustment*)" (Pacherie 2011: 354).

According to Pacherie, we need three basic abilities in order to share proximal intentions: we need to be able to **a.)** share perceptual representations of the situation of action, to **b.)** corepresent actions and proximal intentions of others (while maintaining self other distinction) and to **c.)** predict the effects of ones own and others actions towards the joint goal (ibid. 355, 360).

In line with Campbell's own presuppositions (chapter two, section three) she suggests for a.) that we establish the common ground about the situation of action via joint attention. And while Pacherie characterizes the features of joint attention just as Campbell does (causal coordination of attention, i.e. monitoring and control functions for Campbell, and 'mutual manifestness', i.e. openness for Campbell), she believes that joint attention is realized in form of representations. However, she does not further qualify how the representations are generating the mutualness of joint attention, nor does she appear to find any of this problematic. On the other hand, she seems to demand a little more of joint attention than what Campbell had in mind: as she says, first of all it is "[...] necessary that for the objects to be acted upon, their location as well as the location of possible obstacles, be identified by the coagents and thus that they track the same objects and features of the situation and be mutually aware that they do" (ibid. 355). In the last part of this chapter I will argue that Campbell's conception as it is could at best be a contributing factor in what has to go in to fulfill this role.[32] Until then, I suggest we pretend that it was fully up to the task, regardless of Pacherie framing it in representationalist terms. The second role of joint attention is to help keep track of the coactors' actions and what they are about to do, which is a prerequisite for online action coordination. Knowledge of one's cofactors' attention would provide important cues about what someone is going to do next for instance (ibid.).

But even certain knowledge of ones coactor's attention is not enough, because in the most basic cases of coordinated actions we also need to understand what the others are doing. That means we need to be able to recognize the kind of actions that others are undertaking by the

[32] More specifically I'm going to argue that Campbell's severely underestimates what all joint attention must encompass, and that even with best of goodwill, his conception can't provide all that without further intentional assumptions etc.

immediate motor goals of those actions. For instance, we will know that someone moving his arm about the table is grabbing the bottle of beer that is standing on it. We cannot understand actions detached from their respective motor goals. Thus, understanding of actions and their respective motors requires predictions and must be a representation of an action in form of a means end-relationship. The reason why I emphasize this here is because perhaps (aspects of) joint attention triangles might be explained in terms of Campbell's Relational Account, but we certainly cannot analyze our 'action understanding' without turning at least partially to (assumptive) representations. Not that I believe that Campbell would claim such a thing, but keeping this in mind will help to make an interesting argument at the end of this chapter. By representing an action with its respective motor goal we are making an assumption about its motor goal. Or rather, following Pacherie's extensive discussion of the empirical research, so called mirror neurons in the our motor-resonance system activate the same mechanism and processes are in us that are involved in forming our own motor intentions, which then allows us to ‚retrieve the motor goal' of the observed action (ibid. 365f). The same motor resonance system most probably allows us to predict the outcome of observed actions. Those are further assumptions we necessarily need to make in order to coordinate our actions, and so far we only dealt with the most basic level of intentions. By basic level I mean, we are not making any conscious mental lapses or assumptions about other people's motor goals, but the prediction of our motor-resonance is available to our conscious even if these predictions normally won't be at the forefront of our consciousness.

However, for most of the small-scale egalitarian actions, Pacherie has in mind, we need to share more then just these low-level motor intentions. We furthermore need to be able to predict the probable next actions of our coactors. This kind of 'action anticipation', though it might be assisted by the above described motor-resonance systems, demands more complex 'teleological reasoning' to infer what is the most likely effective course of action, given the known physical constraints of situation and actor (ibid. 358). Action anticipation is thought to recruit the same neurological processes that are involved in forming proximal intentions on the individual level (ibid.). Since reliable predictions depend on a wealth of accurate background information, predictions are more likely to go wrong than in the case of motor intentions.

Since all of these capabilities to form reliable representations of others' motor and proximal intentions are running on the same mechanisms that are employed to form our own proximal intentions, self-other-distinction is a further necessary component of shared intentionality in actions; one that is - albeit still poorly understood -most probably achieved through comparison of a wealth of exteroceptive, interoceptive and motor-feedback signals handled by the processes in parietal cortex and the insula (ibid 359.)

Yet certainly the most interesting and crucial capability is the question of how we integrate

the others' motor and proximal intentions with our own in relation to the joint goal, because that is what ultimately distinguishes cooperative from competitive behavior (ibid. 360). Since empirical research so far is still scarce regarding the underlying processes of that capability, Pacherie admits her proposal is rather speculative in nature (ibid.). What she suggests is that we best think about integration as a Bratmanian 'web of intentions' that allows to relate one's own and the others' (putative) intentions to an overarching intention in favor of a joint activity. Accordingly, "[…] the representation of a joint goal that agents form at the level of SP-intentions consists in a hierarchy of situated goals (ibid.)", of which the latter explicitly represent the instrumental relation of their own and their coactors' actions in regard to the joint goal. This integrated representation of the relations between sub-goals and actions towards the joint goal is on the one hand way more specific than the meshing sub-plan representations we would have at the level of distal intentions, because the latter are not tied to the specific and often shifting demands of the situation of action, and needs not adapt to the concrete successes and failures to achieve sub-goals. On the other hand, it remains more abstract than our concrete representations of our own and others' actions, since it "[…] neither specifies the means to be employed to achieve the various situated goals and subgoals nor who is to do what" (ibid. 361.).

I believe that Pacherie has offered a very illustrative and plausible relational account of *collective intentionality in action* and of the capabilities that would enable us to engage in collective intentionality. To sum it up:

First, it avoids all the biggest pitfalls of the debate of collective intentionality we had seen above. It is not reductive in the bad sense of Searle's objection against reductionist accounts of collective intentionality because the content of the shared proximal intentions makes reference to others' (assumed/predicted) proximal intentions, and the commitment to the joint goal constraints our sub-intentions in such a way that cooperation or cooperative intentions are a consequence, but not already implicated in the (distal) goal intention. ***Second***, it certainly evades the group spirit threat because all the intentionality is still in the individuals' heads fully compliant with Methodological Individualism. ***Third***, since it doesn't presuppose a different *sui generis* psychological ‚we-mode' of intentionality, it doesn't create problems for Internalism (nor does it necessarily endorse it). Maybe even more importantly, it, ***fourth***, doesn't merely push the question of the origins of collective intentionality back into an amorphous background of non-intentional biological capacities, but rather seeks to show how a diverse set of mechanisms that exploit perceptual information operate at a fringe-level between sub-personal and personal level mental states and thereby make a wealth of information necessary for shared intentionality available to our conscious in form of basic representational states. What I found most surprising and at the same time intuitively very plausible about this account, is the stunning amount of assumptions that we apparently have to make just to engage in very basic

coordinated actions. And while I am not going to give a substantial argument for that, I find it equally plausible to believe that some of the same predictive mechanisms fill in all the necessarily missing information for our speech based coordination of shared distal intentions.

Instead, I want to finish both section and chapter by revisiting Campbell's argument of coordinated attack by shining the light of our new information on it. Before we dive into that however, the proper course of action is to address at least the most urgent objection against Pacherie's account as described above. The obvious objection her analysis faces is the same that was ventured against Bratman regarding shared (distal) intentions; that it is just too sophisticated, just too cognitively demanding, that there seem to be just too many representational and intentional states involved simultaneously to be credibly attributed to ordinary agents. A valid point *prima facie*, after all, just thinking about all the mental representations involved in a basic coordinated action like moving the sofa together seems stifling: I'd need to represent my goal to move the sofa as our goal; I need to represent you as having the same distal goal intentions, to relate to the sofa, to my partner in crime, and all the obstacles that might be in the way by means of joint attention; I need to represent my own sub-goals in relation to all the above, while parallely representing your most likely sub-goals and furthermore your most likely proximal intentions in regards to all the above, and the respective efficaciousness of all your likely intentions in regards to the sub-goals and your assumed immediate motor-goals; and, – providing I don't find fault with your likely intentions, – I will have to form my own proximal intentions. That seems a lot of work. Especially, if all the outcome of this complex process amounts to is that I open the door for you, so you can push the sofa through. And it seems unclear even from a phenomenological point of view that we would and maybe even could hold all those representations in our minds all the time.

I would like to make a couple of suggestions that should make the whole endeavor seem cognitively a little more feasible. These suggestions are not meant as extensions or modifications of Pacherie's account, but rather as way of reading it in plausible way.

First, I don't believe that we have to have the whole structure of integrated end-goals and sub-goals and all the related and evaluated proximal intentions of oneself and the others consciously present all the time. That indeed would be a little unrealistic. I'm a firm believer that we can only ever pay quality attention to one thing at a time. Thus, instead I propose that in paradigmatic cases of coordinated action we only ever have one relevant aspect of this whole structure of related intentions represented on a personal level. In most cases that will be one's own proximal intention at hand, firmly anchored to the situation. All the other goals, intentions, evaluations and relations in between will only ‚flare up' as personal-level representations when

they become relevant. Imagine carrying a heavy piano down a narrow staircase.[33] The shared distal intention might be to get the piano from the fourth floor into the truck waiting at floor level. But at any one moment in the whole endeavor your own attention will be focused on fulfilling your next proximal intention (a little left, a little more, not touching there, take one more step), while occasionally switching to representations of the next sub-goal, assessments of progress, upcoming obstacles, the state strength and alertness of your co-actor. All of the latter will flare up when needed, get integrated, and, if nothing demands more immediate attention, get 'saved' into the whole of the operating background structure of representation of the action being shared. This demands further that all sub-goals-and numerous proximal intentions of any given joint actions are indexed somehow as referring to the shared main goal (distal intention).

While it seems to me that this reading of Pacherie's account is phenomenologically plausible, it does have a certain ad-hoc character, and further complications are likely. Not the least because of my somewhat broad use of the term 'representations'; for the above picture to remain consistent 'representations' must at least encompass sub-personal level and personal-level mental states and most interestingly such that are at a fringe level between both levels.

A further objection that could not be thoroughly addressed in this work is of course what form the basic shared proximal intentions would have to take to be plausibly attributed to agents. As we had seen in the case of Bratman's standard analysis of shared (distal) intentions, the ‚I intend that we g' form raised no small amount of critique. This critique is bound to resurface in the case of proximal intentions, maybe even worse, as here we would want to give an analysis that takes it as non-conceptual content. Otherwise Pacherie's analysis wouldn't haven much merits for explaining language and concept acquisition in children.

[33] An exercise in strength and coordination that may reasonably be expected to maximally increase focus in most individuals.

Section E: The Argument of Coordinated Attack Revisited

The aforementioned certain and maybe not yet so certain unsolved issues notwithstanding, Pacherie's account offers some insights that shed a very interesting light on Campbell's solution to what he called the *Scenario of Coordinated Attack*. Campbell had set up his Relational Account of Joint Attention as a unique solution to a unique problem. The unique problem he identified was that the phenomenon of joint attention demands a certain openness that amounts to an ominous awareness or knowledge of all the involved that they are all attending to the same object, while they are all also knowing that they are attending to the same thing. In Pacherie's words, there needs to be a 'mutual manifestness' of the object being jointly attended to. Campbell then proposed that this mutual manifestness of joint attention is not some arbitrary phenomenological artifact of experience, but rather that it has to play a functional role in our cognitive lives, namely to provide the rational grounds for us to act jointly or competitively on specific items in our immediate environment. He then suggested that the only plausible way that joint attention could fulfill this role was under the description offered by his Relational Account. All other options to analyze what must be happening in terms of the psychological states of two co-attendants X and Y, when it is true that X and Y are jointly attending to Z, would ultimately have resort to explanations in form of infinitary knowledge ascriptions. As we could see in the second chapter of this work, he used the Scenario of Coordinated Attack to successfully illustrate that the latter approaches are very implausible indeed, however, not that successful at all to show that all other options are doomed to be explanations in terms of infinitary knowledge ascriptions.

Independent of that discussion, I would like to focus now on how he proposed joint attention would enable us in the unrestrained scenario of coordinated attack to attack right away. A joint action that Campbell could only imagine to be rationality warranted if joint attention was a primitive experiential state of being related to the object as a co-attender with one's co-attender. So we are sitting together in a booth and we are playing the war game again. In order to win we need to both single out the same out of multiple differently colored targets on a big screen in front of us. The stakes are high. It's all or nothing, if we don't hit same target at roughly the same time it is game over. Now Campbell claims that in this (ordinary) kind of scenario all that is needed for a successful attack is for one of us to utter a non-identifying unspecific demonstrative like „Let's attack that one" (Campbell 2002: 166). But the only way that could happen in Campbell's eyes was if being jointly attending was a fact of immediate experience in the same way as maybe the cubeness of a cube is an immediately accessible fact of experiencing a cube perceptually. A fact that, at least on Campbell's picture, is experientially

guaranteed.[34] And which in virtue of that experiential guarantee furthermore allows us an otherwise impossible insight into someone else's mental state, namely him being co-attending with us to the target.

It seems to me that even if a joint attention experience thus described could guarantee us that we are both actually focused on the same target, the picture is still missing a lot of factors that need to be out in the open between us as much as the fact of our attention to the same target – at least if it was to be a successful joint action. And none of these factors could possibly be explained in terms of a relational account. Obviously, I am referring to the host of shared distal and proximal intentions, which we now know to be involved in joint actions, even those of the most basic sort. In order to shoot the target we need not only have both singled out our target and be aware that we have both singled out the same target, we also both need:

1. A shared distal intention to win the game, including shared subgoals, f.i. 'Let's shoot that target'.
2. a host of shared assumptions about our respective capabilities to understand the game and the stakes, to communicate clearly, as well our motor capabilities
3. to represent our shared motor intentions in regards to the target, and of course predict the efficacy of our motor actions in regards to selecting the right target. Maybe one might want to further constrain the game such that we could only observe the screen and our co-attender but not his hands on the target selection mechanism. But then even more so we would have to explicitly or implicitly assume that our co-actor will take the right actions, and not do something stupid.
4. to observe and predict the other's actions (especially important, if attack timing was another crucial factor to win the game. That is, if we had to hit the target roughly at the same time to make a kill).[35]

Thus in order for us to win, we would have to very closely monitor our respective actions, and as we had seen above ,just seeing an action as an action means to represent it as a movement with a goal. The goal or intention is not part of the world. We cannot perceive it. Instead we, or better the processes of our motor-resonance system in this case, impose an assumption about the purpose of a movement on what we perceive. However reliable these assumptions are, and I believe them to be very reliable in most cases, we cannot relate to them directly in perceptual experience, as Campbell supposes we can with joint attention. They are assumptions, they are in our mind, they may go wrong and sometimes they actually do. Of course, none of this directly discredits Campbell's Relational Account of Joint Attention. I think Pacherie's story about how we share intentions in action is in principle compatible with Campbell's Relational Account of Joint Attention and probably as well with his naïve realist account of perception.

[34] I used the word guarantee here, because it surpasses mere warrant. For instance, warrant alone doesn't guarantee the truth of a belief.

[35] That would actually be a reasonable constraint: if we wouldn't have to hit the target at the same time, I could just wait until you shot one target and then shoot it again. No joint attention would be needed at all.

However, what strikes me so odd is to insist that joint attention, in order to fulfill its role in this scheme must guarantee its factualness through direct experience in order to provide the rational grounds for attack, while all the other necessary pieces of information that make shooting a rational decision in this case must be representations that are at least partly assumptive. The way Campbell framed the problem it seemed that joint attention was all that is needed to make attack rational. But after revisiting the unrestrained Scenario of Coordinated Attack with our further insights about shared intentionality in action, it seems that joint attention is just one little piece of many that needs to be in place. And while none of the other pieces of shared intentionality going into a successful attack guarantee being shared in virtue of being experienced as such, they seem to be reliable enough not to topple Campbell's intuition at all: that in ordinary cases there seems to be nothing problematic about shooting the target after a non-identifying demonstrative utterance. If nothing else, this should at least make us take serious the possibility that joint attention would as well be an (at least partly) assumption based experiential state. At the end of the following chapter I will explore further reasons for such a conception of joint attention.

Chapter Four: Criticizing the Relational Account of Joint Attention

Section A: Introduction

In the first chapters we have analyzed in some detail Campbell's argument for the Relational Account of Joint Attention in so far as it is supposedly the only viable option for solving the puzzle of coordinated attack, a claim which we denied, and furthermore whether there was any other compelling motivation from either the general Philosophy of Perception (Berkeley's Puzzle, Nagel's Riddle of Consciousness) or the debate on Collective Intentionality, – which we also denied. Despite these negative outcomes, we haven't yet discussed whether there is actually any compelling argument directly against the plausibility of the Relational Account itself. After all, one might think - necessary or not - that at least it offers quite an elegant solution to the problem of common knowledge. Accordingly, in this part we will have a look at two very different critiques of Campbell's account, as forwarded by Christopher Peacocke and Michael Schmitz, both of which I will argue ultimately fail to be a serious challenge to the Relational Account. In the following section I will argue that Peacocke's objection that Campbell would presuppose what he is trying to explain does not appreciate the set-up of Campbell's account. In contrast, section C will show that Schmitz's critique, as detailed in section C does not find sufficient foothold in the debate of joint attention to convince us that Campbell's account couldn't deal with Illusions.

Instead, I will argue in section D that there are two serious threats to Campbell's view; the first is the way he believes we actually experience joint attention phenomenologically, which at least makes his version of a relational account implausible, the second reason, even worse, being that the kind of direct experience of co-attention needed for his account is not covered by his view his on the philosophy of perception. The chapter will finish with a short section building on the insights gained over the previous chapters that outlines what I believe would be a more plausible account of joint attention.

Section B: Peacocke's Critique: Presupposition of the Explanandum

Let us quickly recap the Relational Account of Joint Attention. On Campbell's view, it the only description under which it could be true that X and Y are jointly attending to Z is, when they are experientially related to the object and each other as co-attenders. Just as the object is a constituent for our experience of the object, so is the respective other's co-attention to the object constitutive for our experience of a situation as joint attentional. We experience this as a subtle shift in the way we perceive the object, thus that it is now a potential object of coordinated action with our co-attender, whether that be competitive or cooperative action. The openness of joint attention is therefore part of the primitive experience itself. The phenomenal shift in our experience implicates the occurrence of its constituents (the respective other's co-attendance). We experience the other as a co-attender only because he is the co-attender. Therefore, simply being in this experiential state of co-attention in theory would furthermore, on a personal reflective level, allow us to know the other's attentional state without having to go through the endless iterations of infinitary knowledge generation.

Peacocke objects that this analysis of joint attention wouldn't really do anything more than to embed the property to be explained, namely the openness. While such embeddings might provide an important constraint on what can be considered joint attention, they cannot offer a complete account of the phenomenon (Peacocke 2005: 300). He proceeds to compare this to the task of giving an account of what it means to be 'fashionable'. Here too, he argues it is not enough to say that for something to be fashionable it has to be believed to be fashionable. While clearly a true statement it is not enough fully explain the property ‚fashionable' because "[t]oo many other properties beside that of being fashionable meet that condition; and correspondingly, it intuitively leaves out too much of what is involved in being fashionable" (ibid.).

Prima facie it may look as if Peacocke had a point here; after all, for Campbell, on an experiential level there is nothing that the experience of someone else as a co-attender is composed of, than him or her being a co-attender. So how the openness actually gets into this seems a reasonable question to ask. Conversely, I believe it is precisely Campbell's idea that there is nothing further underlying the experience of joint attention to an object. Peacocke is right in so far, as truly the openness is fully embedded in the experience of the other as a co-attender to the object, but (at least from Campbell's perspective) there is nothing further to be explained. Campbell does not deny there are causal processes that are generating these experiential states, but the relation that we experience is not a causal, but a constitutive one (Campbell 2002: 162). The *pointe* of his position is that he treats co-attendance as property of the world that is constitutive and is experienced as constitutive for joint attentional experiences.

From my understanding 'constitutive' means two things. First, there is the

phenomenological aspect, which I find hard to object against, at least in the case of ordinary objects, that is: whatever objects and state of affairs we experience perceptually we experience as the very constituents of those experiences; as opposed to just experiential artifacts of some obejcts causing us to experience them as such. For instance, my experience of this water bottle on my desk is an experience of the water bottle itself, not just of something that has the disposition to appear to me as a water bottle. But more than a mere point about phenomenology, for Campbell this is an epistemological issue: these constitutive relations can only obtain if there *are* actually the constituents. The experiential states are factive. For joint attention that means that my experience of you as a co-attender can only obtain when we really are jointly attending.

Your co-attendance to Z is constituted by my co-attendance to Z and vice versa. Therefore, co-attendance, which implicates our whole occurrent experience being joint attentional, including full openness, is the basic experiential (and therefore as well explanatory) unit in Campbell's analysis. Once again, this doesn't mean that there aren't any sophisticated sub-personal causal processes at work, but on the experiential level the experience of someone as co-attender has all the necessary ‚information' available. The openness is a part of the experience of someone as a co-attender, not something added to a normal experience to make it a joint attention experience that could be subtracted from the experience of someone being a co-attender.

This is in stark contrast to the property 'fashionable', for which 'believed to be fashionable' is not the basic explanatory unit. Yet, if fashionableness was constituted alone in virtue of the belief that something was fashionable, than here too we would not have a problem. Or to fit the analogy even tighter to Campbell's account: imagine that our belief of something being fashionable was constitutively tied to all the further conditions that need to obtain for fashionableness. Then having the belief of something being fashionable would be all there is needed to conclude that something is fashionable. [1]

So in summary, it is just not the case that Campbell cheated himself out of giving an explanation of what the openness consists. The way he analyzed the primitive phenomenon of consciousness is such that the openness is less of an additional element that needs to be embedded in the experience to make it fully joint attentional. Instead, it is better understood as one property of the experiential state itself.

Section C: Schmitz and the Illusion of Jointness Objection

A very different kind of critique stems from Michael Schmitz. Schmitz agrees with the phenomenological side of Campbell's view in as much as it "[…] emphasizes its triangular nature; the distinctive way in which the co-attender figures in that relation; and its experiential character" (Schmitz 2015: 7). For him too then, whenever we are jointly attending, we experience ourselves as standing in a three-place-experiential relation to the object in which the other is featured as a co-attender. Although, he finds that alone to be insufficient to wholly characterize a joint attentional experience; mainly because it is missing certain affective features, which could only be intentional.[36] Yet unlike Campbell he favors a reductive-experiential account[37] (see Chapter Two, Section B, G, I), which is the reason why he "[…] reject[s] its disjunctivist refusal to embrace the notion of the intentional content of joint attention experiences" (ibid.). While for him we might as well *experience* the triangular relation as constituted by its parts, the experience does not guarantee the facticity of the other's co-attention. Our experiences are firmly rooted in our minds; and while their truth clearly depends on external facts, – namely whether the other is co-attending or not, or whether there is an other or not, – the intentional contents of our minds that make up our experiences are independent of those facts.

The argument that he gives to back up his objection against Campbell is rather short and consist itself only in the claim that "[…] there can be and sometimes are illusory experiences of jointness, as when you turn to me excitedly to share something – only to discover that my attention has wandered away from the movie you were experiencing as an object of joint watching" (ibid. 8). This in turn leads him to conclude that "[…] we need a notion of experience and an understanding of intentionality that allows us to locate experiences and intentional contents in the minds of individuals in the good cases where we do attend jointly, as well as in the bad cases of illusory experiences of jointness" (ibid.).

The problem with this argument is that it will only convince someone who is already convinced that 'illusory perceptual experiences' actually are, or at least can be happening at the experiential level itself and are not just reflective or introspective mistakes as Campbell claims them to be.[38] After all, the latter gives exactly the same example to argue that this mistake happens on the reflective (Campbell 2002: 163) or introspective level (Campbell 2011: 419). The only difference to Schmitz' example is that the movie is substituted by a swan on a lake. And

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[36] Though that, taken for it self, is not yet an argument against Campbell, as he explicitly states that he considers his notion of joint attention not to be exhausted by the functional role he laid out as its *raison d'être* (Campbell 2002: 169). Thus intentions could very well enrich the primitive experience of joint attention on his view.

[37] whose details, just like the ones of Peacocke's own proposal, won't be discussed here.

[38] Which is a somewhat infelicitious way of phrasing the issue as it seems to presuppose the truth of Schmitz' suspicion.

while Schmitz acknowledges that the epistemological concerns that drive Campbell's position could not possibly be dissuaded in the context of the debate on joint attention (Schmitz 2015: 9), a conclusion I share, he does seem to believe that the TV-watching 'illusion' establishes his point well enough to call for an intentionalist solution.

One reason I believe that this example is not as strong as Schmitz makes it out to be, is that it does not seem to be the kind of situation that we would ordinarily think of as an illusion. In ordinary cases, when we experience perceptual illusions, once the experience is revealed to us as illusory, the revealment will always be accompanied by a sense of genuine puzzlement and, not unusually, a distinct urge to understand the cause and origin of that illusion; an effect on the percipient that strikingly does not lose its grip even after repeated experiences.[39] The situation imagined by Schmitz simply lacks any of these qualities. On the contrary, I would be surprised if anyone finding themselves in such a (pretty common) situation would be surprised at all, to find the other currently absentminded. Even if one was surprised, the surprise is in all likelihood not due to one's primitive experiential state, but may be to one's background assumptions about one's putative co-attender's fervent interest in the object of the putative joint attention. In fact, I will argue in more detail in the last section that the most straightforward explanation for such a situation is that the one surprised didn't pay attention to the other's attention, but that argument will depend on changing our phenomenological picture of joint attention, in regards to both Campbell and Schmitz.

What Schmitz would need to make his objection more compelling is an example whose phenomenology clearly shows that that we are having an *illusory experiential state* that has us be surprised, if the other is maybe not watching the movie but his mobile for a moment. I think that is not as easy as it may seem on a first look, mostly because the experiential shift that marks joint attentional experiences for both Campbell and Schmitz seems to be rather subtle and elusive (more on that later). But furthermore, even plausible examples of illusions or even hallucinations of experiential states of joint attention (where no insight in the nature of the experience is manifest to the subject) would not serve to undermine Campbell's account of joint attention. All that this would allow is to have Campbell admit that there might be situations, in which the mistake is not a mistake of conscious level reflection regarding one's occurrent experiential state (see Campbell 2002, 163), but that there are also intentional states possible that purport to be experiences, while they are clearly not, even in the case of joint attention. But it seems questionable whether that would suffice to even make Campbell modify his account or whether he would even have to feel challenged by this. His disjunctivist denial regards neither the existence of intentional or representational states nor the existence of the occasional

[39] Think of the inevitable effect of looking at a MC Escher painting.

illusion or hallucination, but only that the latter qualify as experiences and that the former are what makes up the base of our perceptual experiences. And whether or not this is a valid reframe of what it means to have illusions and hallucinations is a matter that does not get solved by examples, and indeed must be discussed in the relevant debate in the Philosophy of Perception.

But there are far stronger reasons to question the plausibility of the Relational Account of Joint Attention.

Section C: Dismantling the Relational Account

Despite its elegant conception and seemingly clever circumspection of the riddle of common knowledge through extension of his radical theory of perception, Campbell's Relational Account of Joint Attention unfortunately does not pass the test when subjected to close scrutiny. In the following I'm going to raise three objections against the Relational Account. The first two of these will show that Campbell's proposal depends on intentional ascriptions of properties in a way incoherent with both its ambition and implicit background theory of perception. The third objection then focuses on the phenomenology of ordinary situations of joint attention, which will prove to be incoherent with both Campbell's and Schmitz' assumption of joint attention as a single primitive phenomenon of consciousness, and thereby providing a bridge to the last and constructive section of this chapter.

The first objection focuses on the way Campbell tries to cash out the experiential shift we undergo when we are jointly attending. I'm going to argue that the notion of 'functional role' that Campbell uses in his analyses is incomprehensible, if it is not thought of as an intentional state. He claims that when the other person "[…] enters the content of your experience, […] as your co-attender […]", "[t]here is again no reason to think that this shift, from solitary attention to having the other person enter your experience as a co-attender, should be thought of as a shift in the representational content of your experience. Rather there is a shift in functional role" (Campbell 2002: 169). And then he proceeds to further qualify this shift by stating that as we experience the other as a co-attender the functional role of our attention shifts in such a way that it is now the categorical base for our potential joint endeavors: "[…] [B]eing in the state confronts one with the rational basis for one's actions (ibid.)." But wherever in the relating paragraphs Campbell emphases that this shift is not a „representational change", it seems to be about our relation to the co-attender as "[…] there is no representation of your relation to the other person, and the way in which the other person seems to you to be, may be exactly the same as it was before you became involved in the exercise of joint attention" (ibid.). The latter part of the quote actually implies that all what representational states were offering experientially was the projection of sensuous qualia into our conscious. And while that alone is

a curiously limited conception of representational states, – one not mirrored like this in the rest of Campbell's oeuvre (but also evidenced ibid. 168), – more interesting is the focus on our allegedly non-representational experience of the co-attender. However, instead of taking this bait (that is what the second objection is going to be all about) we will focus on what Campbell doesn't focus on: the experiential shift.

In the case of singular attention he illustrates his point by saying that "[t]he change, when you shift your attention from one plant to another has to do rather with the basis of the functional role of your experience of the object. When you attend specifically to it you are in position to harvest knowledge from it, and to act specifically on it" (ibid.). So what moving our attention around between the objects in our immediate environment does, is that it has us experience different objects as the actionable things of the moment. In the case of joint attention it becomes the possible object of joint action or investigation.

Yet what is hard to understand is how the functional role of our experience of an object could be anything but intentional or representational. The problem is that the functional roles envisioned by Campbell are not properties of the world that we could relate to in perception. On Campbell's general theory of perception, when we are seeing a red cup we are making experiential contact with the red cup itself. We experience it as red, because the redness is part of the cup; and such properties and cups, and pencils and other things in the medium sized world ‚change' our perceptual experience because they constitute our experience. And while of course this picture of our perception has illicited heavy critique,[40] it does at least have an undeniable intuitive appeal. But, even assuming the relational view of experience was plausible, *the kind of functional roles that these objects can play in our cognitive lives in virtue of being attended to are not at all likely to be constituted by these objects*. That makes a lot of sense. After all, it is precisely the point of Campbell's conception that the experienced objects only play that role, when our attention is on them. That might seem trivial and it is unlikely that Campbell actually wanted to say that the objects would themselves constitute this functional shift; but if the object of attention cannot constitute its functional role, what could? The way Campbell phrases it suggests that he believes that the other's co-attention (implying joint attention) constitutes this shift.

But then we are dealing with primitive *intentional* states that mark the object in our experience 'as something *we* can now act on' versus 'something *I* can now act on'. This experience of objects as having a (very primitive and pragmatic) meaning for us clearly surpasses anything that mere direct contact with the macro-properties of the object could provide. While thus experience of objects might still depend on making direct perceptual

[40] Among others by Burge 2005, Schellenberg forthcoming, Schmitz forthcoming 2013, Searle 2014)

contact with the objects as the constituents of our experience, as soon as we attend specifically to them our experience cannot be seen as purely non-representational on Campbell's view.

The reason this poses a serious challenge for Campbell's account of joint attention is that now the experiential shift which supposedly makes the whole situation introspectively available and 'open' to us as co-attenders is revealed as based on a mere causal connection; in contrast to what Campbell thinks it needed to be, namely a constitutive relation. Plainly, there is nothing that could *constitute* our experience of neither such a functional role nor a shift in that functional role.

Currently I see only one possible defense that Campbell could venture against this objection: to admit that truly the shift in functional role might be at least partly intentional, but that I left out of the picture our experience of the co-attender as our co-attender. And it would be the experience of the latter that actually *causes* the shift in functional role of the part of the experience that features the object. *Prima facie* that doesn't seem to be any easier to understand than the original proposal that I took to be that we experience the other as a co-attender (and not just someone arbitrarily attending to the same object in our vicinity) in virtue of the shift in functional role of our experience of the object we are attending to. But for the sake of the argument let us assume that such complex inner-experiential causal relations are possible and have a closer look at what it could mean to experience someone as a co-attender, which brings us to the second objection.

The second objection strikes in a similar vein as the first and holds that here too we cannot make sense of the idea that our experience of someone's co-attention is constituted by his co-attention. The problem is, I believe, that attention and even more so co-attention simply seem to belong to a different ontological category than the material objects and their properties that we ordinarily take ourselves to make contact with in perception. And that explains why, whenever one tries to get a closer look at what could constitute our putative experience of a co-attender as a co-attender, one turns up empty handed. We do not straightforwardly experience co-attendance because there is no property of co-attendance in the world. At least not in the sense that it has any of the qualities normally associated with experience. Campbell's insistence that the subtle-shift in experience is not 'representational' in the sense of a change in the sensual qualia of the experience is a further hint into this direction of thought. He has no other way to cash out an experiential change that does not have any obvious experiential qualities because its putative constituent does not have any experiential qualities. There cannot be a non-subtle shift in how we experience the other, because there is no 'co-attenderness' out there that could constitute our experience of a co-attender the way a red cup could constitute our experience of a red cup. Thus, it seems that Campbell would need a non-subtle experiential shift even more than the representationalist because in order for us to think of an experience as constituted by

something, we would have to make experiential contact with the very property itself on his view. To become clearer about the fact that we could not possibly experience co-attenderness straight away it makes sense to investigate how we might experience someone else's singular attention to an object from the perspective of Campbell's view.

Let us take a step back for a moment. I argued in the previous chapter that there is at least some intuitive plausibility to what we called Campbell's *Argument from Direct Contact*; the idea that we learn about the physical world and its properties by being perceptually confronted with those properties. We learn what is red by seeing red things; we form our concepts of objects being red in response to experiencing red objects. *Prima facie,* the idea that our experiences of red objects are constituted by the experienced red objects is very easy to understand. Yet, in the case of attention, especially co-attention, I fail to see what could do the relevant constitutive work, and on the other hand how that could be cashed out in our experience. Attention is not an object in the ordinary sense, and even less so co-attention. It is well characterized as relation between a perceiver and an object, as Campbell does. But the relation as such is non-material. We can perceive the observer and we can perceive the object he observes. The question is whether we can perceive the relation itself in the same way or, to put it differently: can we be related to a relation?

Frankly, I cannot prove in principle that we cannot be related to relations, but I can show that it is quite implausible. One might think that there is actually some evidence in favor of our putative ability to relate to attentional relations: after all, there can be little doubt that at least in the case of ordinary single agent attention we do 'experience' someone else's looks as attention; that we intuitively understand what it means for someone to be related to something. It is also clear that such perceptions are primitive phenomena of consciousness; no deliberation or reflection is needed. However, what is dubious is not the ability itself, but whether it could be explained in naïve realist terms.

One reason that should fuel this doubt is that we will curiously also understand someone's looks towards an object as him attending to that object even if we cannot see that object. And there doesn't seem to be any more cognitive effort involved here than in the case in which we do see the object, too. How could we perceive a relation without experiencing the relata? This question seems especially pressing, because from the perspective of the observed attender, his relation would have to be constituted by the object. It appears straightforward to explain this phenomenon by claiming that we actually represent the missing relata in our experience with some kind of placeholder, that allows us to recognize the experienced properties of the observed person as a glance (or look at something). On the other hand, saying that we could perceive the relation without perceiving any of the relata make no sense at all. It seems to me that the relation could only be experienced in Campbell's terms by experiencing the relata. The

relation itself – without its relata – has no properties that could constitute experiential states in us. We can become clear about that by looking at a counterfactual case: if we could experience relations independent of their constituents then we should be able to experience someone's attention even if we could see neither the person nor the object she is attending to. Imagine standing in a narrow street with high buildings on each side, facing towards a cross-section only a couple of meters away. Evidently, we would not experience the attention of someone standing behind the left corner, which was directed at a cat behind the right corner, although that attentional relation clearly 'passes' through our field of view.

Thus, since on the naïve realist view we could only experience a perceptual relation in virtue of experiencing its relata, but we can clearly experience perceptual relations as relations with only half of the relata, we can conclude that in the latter cases at least some representational work is necessary. Otherwise we could not experience the relation as a relation at all. The point here is emphatically that part of the experience is something for which no constituent is available.

Yet, if representational states are needed for us to have experiences of other's attentional relations to objects we can't perceive *as relations*, why shouldn't the experience of a relation in the ordinary case be representation based? Such a representative state could very well be thought as overlaying the naïve realist experience of the attender and his object as real world properties, but takes into account that even basic experiential states occasionally seem to demand interpretive work whose upshot could not plausibly be constituted by the experienced objects. While so far we only looked at what it could it mean to be experientially related to someone's attentional relation in the singular case, but the same issue is bound to hold for three-place-experiential relations. It seems on Campbell's view we cannot make sense of how we experience someone else's attention without postulating at least some representational involvement. Therefore, it is also not plausible that our experience of the other as a co-attender was constituted by his occurent 'co-attenderness' nor could the experience of co-attenderness cause the experiential shift in functional role of the object.

There is one further difference between the experience of ordinary objects on Campbell's view and the putative experience of joint attention that is related to this argument: we do not seem to have a clear concept of joint attention in our ordinary thinking about the world.
Joint attention, especially as conceived by Campbell, just seems far too complicated a concept to be directly constituted by a genuine property of the world. For singular attention at least it seems that we do ordinarily have concepts about it that could be derived from experience.[41] We reason and think about others' attention and where they look quite regularly. However, in the

[41] Even if hopefully the above paragraphs have made that quite an unlikely assumption.

case of joint attention it would seem quite a stretch to contend that we had any concepts that come even near to having the semantic content that Campbell's notion of co-attention would demand. We might say things like '*We* are watching the movie', but should we take that as an indicator that we are understanding this to mean that we are currently in a three-place experiential state constituted by our co-attention to the movie? It seems to me that such an utterance is way too vague to allow that conclusion. Conversely, I would suggest that we could take the apparent difficulties to explain joint attention and especially the ominous openness at its heart, as a strong indicator that we do not have a clear conception of what it means to be jointly attending at all. In contrast, we would be hard pressed to find someone who didn't have clear conception of what it means to experience a red cup. Now that doesn't say much more than that the intuitive plausibility of Campbell's account doesn't extend to the puzzle of joint attention. But it seems quite clear now why: because the constitutive elements that we are supposedly experiencing in joint attention are not of a kind of which it would make sense to say that they could *constitute* our experience of them.

The third objection is that Campbell's conception seems to be at odds with the phenomenology of joint attention in regards to another aspect: it concerns the experiential trust that the experience of joint attention is supposed to generate. I will argue that this is not really a feature of joint attention.

Campbell claims that in sole virtue of experiencing a situation as joint attentional we are rationally entitled to engage in immediate joint action to object with our co-attender. We can know that we are jointly attending because there is a subtle shift our experience that has us experience the object as potential ground for the joint endeavors. Our rational entitlement to engage in immediate joint action is itself grounded in the fact that the joint attentional experience is constituted by the three-place-experiential relation. This assures that we could not have such an experience if we were not jointly attending.

Yet it seems to me that I do not trust my experience of joint attention half as much as I do my 'normal' perceptual experiences. Imagine the two of us sat on a bench in the park again, jointly watching the swan swimming on the lake. But the peaceful experience gets interrupted violently. An alligator comes up from depths of the lake, swallows the swan in just one bite and disappears again in an instance. If asked to testify about the incident I would swear to the truth of the event having happened exactly as I saw it. But if you denied having seen the event happen at all, although I took it that we had been jointly attending to the event, I would never swear that you are a liar, because of my experience of the situation having been joint attentional. I would not claim that I knew that you must have had seen it too, because I experienced a subtle shift in the way I experienced the swan at the moment of the kill. I might claim that *I saw you looking at the swan*, if I did. I might say that you should have seen it, because *I saw you looking the direction*

of the event. But I could never invoke a joint attentional experience as understood by Campbell, to make any claims about what *you* had experienced and what not. This raises some serious doubt about whether the joint attention is correctly characterized as a primitive experiential phenomenon whose occurrence *implicates* the other's psychological state. I am fairly confident that we simply do neither experience joint attention like that nor do we think of it of having this kind of power. However, we do certainly think that our normal perceptual experiences implicate the existence of the objects we perceive. Together with the issues and discrepancies unearthed in this section we can already conclude that the Relational Account does not paint a very plausible picture of what is happening in joint attention.

However, this last objection surpasses mere relevance for Campbell's account alone. It applies just as well to reductive experiential accounts that try to analyze joint attention as one single primitive representational state of being related to our co-attender that rationalizes our immediate joint actions to the target; at least, if this experience was supposed to have a similar epistemological status in our cognitive lives as our ordinary perceptual states. Such a conception does not capture our experience of joint attention any better than Campbell's proposal because it tries to give an account of a phenomenon wrongly characterized in the first place.

Section E: Perspectives: Joint Attention as Mutual Assumptions?

In the previous section we could show rather unambiguously that the Relational Account of Joint Attention does not offer a plausible analysis of the phenomenon. First, there is no plausible constituent for the experiential shift that allegedly would allow us to know that we are truly jointly attending. As we had seen, that made Campbell's account uncomfortably dependent on representational states; but furthermore there was also a phenomenological issue: in real life the experience does not generate the kind of trust in the facticity of the joint attentional state that it should, according to Campbell's view.

Now, it would feel rather unsatisfying to conclude this work on a negative note. Therefore, the prudent thing to do is to have a look at what we can learn from all the different investigations endeavored over the previous chapters and try to sketch the outline of a more plausible account of joint attention.

What we can record without much further discussion is certainly that joint attention must be explained in terms of the psychological states of the involved agents and that there is a certain openness to fully realized states of joint attention. This openness is what makes joint attention such a challenge to explain. We can also confidently exclude a number of theoretical options from the list of viable candidates for explanations of the phenomenon: we know it cannot be explained in terms of sub-personal level mental states nor of personal level propositional states that demand infinitary iterative ascriptions of mutual knowledge. Ultimately, we could also add the Relational Account to the list of implausible candidates, as well as reductive experiential accounts that also try to capture the phenomenon as one single action-rationalizing state of experience[42]. That leaves us with a reductive experiential account that evades the pitfall of ascribing to the agents a phenomenological implausible trust in the true jointness of the experience. Giving such an account would not depend on a rejection of Campbell's naïve realist picture of perception. Or if it did, I believe, the reasons for that rejection cannot be found in an analysis of the phenomenon of joint attention. From looking at our findings from the previous section, it would seem plausible to hold that we experience the world in virtue of making direct contact with the objects around us, but that what allows us to experience glances and other attentional states of others is actually the employment of further intentional capabilities.

On such a view we would experience all the properties of the attended object and our presumed co-attender legitimately as constituents of the experience; but furthermore we enrich the material experience with intentions in such way that they ultimately explain the openness of the situation.

Whether or not one wants to reject the naïve realist view of perception, the question remains

[42] This would include non-experiential non-inferiential reductive accounts of joint attention (NNRA; see Chapter Two: Section B, Section G).

how we could cash out the openness of joint attention in terms of these representational states without running into the problem of infinitary iterative knowledge ascriptions. The problem is that if we do not want say that we experience joint attention as one single conscious phenomenon that could on reflection reveal to us that we are experiencing the other as co-attender, the problem of infinitary knowledge ascriptions seems exactly where we are headed. And it is not as easy as claiming that our representations of the matter are primitive non-conceptual representations. Without further qualification the problem remains exactly the same. Only that in the case of the primitive representations the computations of the infinite iterations presumably would have to be processed by sub-personal mechanisms. Yet, that does not make it any less of an impossible task.

Unfortunately, I cannot offer a comprehensive solution to this problem. However, there appear to be two different ways to go about it in principle: the first one is to go with a non-conceptual representational version of Campbell's analysis of joint attention, and simply lower the epistemic warrant that is attached to being in the three-place-experiential-relation. *Prima facie* that would be a relatively weird state to be in, an unqualified 'maybe-experience'. The reason for this is that on this picture we would not really have conscious access to the causal factors, which control our impression of probability because, presumably, these factors are processed by sub-personal mechanisms. The weirdness of this 'maybe-experience' on such an account would be due to the way Campbell's account was originally set up, namely as an either/or-experience. The non-conceptual representational version of his account would have to find a way to explain how the experiential state could transmit varying probabilities of accuracy to the agents. I'm unsure how plausible such an endeavor would be.

The second option, which seems preferable on a first look, is to abandon the three-place-experiential relation altogether and try to explain the openness in terms of mutal assumptions. We are having a genuine joint attention on such a picture when both X and Y are rightly assuming that they are both jointly attending to Z. In order to make such a conception work two further qualifications are needed: the first one concerns the questions as what kind of mental states we should think of these assumptions. Our best shot seems to be some sort of fringe-level representational states like the ones we learned are involved in coordinating our proximal intentions in 'small-scale-egalitarian actions' (Chapter Three, Part Two, Section D). What qualifies these kinds of states is that on the one hand they are the output of sub-personal-processes, and most of the time their information is not at the forefront of our conscious experience, which makes them low-level enough to qualify as primitive states. But on the other hand, they seem to be able to make situational relevant information available to our conscious mind when needed. While this is mere speculation, and further research has to be done, I find it quite likely that we could represent the perceptual focus of a person we are observing – even

passively – in a similar fashion that we represent and mirror other's motor-intentions. The second qualification is that such a picture would need to take into account that the assessments and assumptions regarding other current perceptual awareness are dynamic in nature. It seems to me that these kind of representational states are constantly in flux. Their accuracy, or better subjectively experienced probability, depends on a host of always changing internal priorities and we are aware of all this on some level, constantly. An account of joint attention based on assumptive fringe-level representational states that could flesh out the details of this dynamic would go a long way to demystifying the experience of joint attention.

Chapter Five: Summary

The objective of this thesis was to gain a thorough understanding of John Campbell's Relational Account of Joint Attention. It sought to explore the structure of its argument and the principles governing its underlying theoretical framework. It evaluated different possibilities from different fields of Philosophy that might be thought to motivate the unique nature of its proposal. It used its own presuppositions and the phenomenology of its subject to raise severe doubt about its internal consistency and general viability.

In the end, the investigation has left little reason to believe that the Relational Account of Joint Attention offers a plausible analysis of the psychological states that characterize fully open episodes of joint attention. Already at the end of the second chapter we learned that the primary motivation to give a relational account of the phenomenon was indefensible. Even on the most charitable reading we could not find a way to make plausible Campbell's claim that all explanations of joint attention in terms of reductive experiential states would necessarily have to account for the openness of joint attention by means of infinitary mutual knowledge ascriptions.

We then also had to reject any notions that the Relational Account could offer at least partly solutions to what we called *Berkeley's Puzzle* and *Nagel's Riddle of Consciousness*. In the first part of the third chapter it became obvious that Campbell's argument for this depended on the assumed explanatory exclusivity of his Relational Account. If the Relational account were the only viable analysis of joint attention, then, by implication, it would make a case for Campbell's naïve realist account of perception. And only this account of perception then could potentially affect either of the two *Riddles from the Theory of Mind* directly. However, since we had already seen in the second chapter that the Relational Account cannot claim explanatory exclusivity for joint attention, it also clearly does not impact these solutions, – not even in an indirect way.

Even in the theory of Collective Intentionality we could not find any arguments that could make a compelling case for the Relational Account of Joint Attention. Instead we found a supremely fascinating account of the nature of our shared proximal intentions in actions and their correlating neurological processes. And while these findings did not directly contradict Campbell's Relational Account they did make it seem redundant.

All in all, none of the surveyed options that could possibly motivate the Relational Account of Joint Attention provided any convincing arguments in that direction. There might certainly be other *prima facie* compelling motivations for such an analysis that were neglected in this work. However, despite this theoretical possibility, we have to conclude that the perspectives of the Relational Account look fairly dark. While we did defend it successfully against two objections from the literature, it turned out on a closer look that it is impossible to explain the experiential shift in functional role consistently with the framework that Campbell presupposes. On

Campbell's picture it is only a subtle 'experiential shift', which supposedly makes the co-attention subjectively available to the conscious of the agent, but we could show quite forcefully that such a shift could plausibly be thought of only as an intentional or representational state.

Therefore, in summary I contend that the Relational Account of Joint Attention, as conceived by John Campbell, is of little merit to the debate about joint attention. Future research should best focus on developing a comprehensive account of joint attention in terms of mutual assumptions realized by fringe-level representational states.

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Abstract:

Gemeinsame Aufmerksamkeit ist ein unscheinbares psychologisches Phänomen, bei dem zwei oder mehr Personen ihre Aufmerksamkeit gemeinsam auf dasselbe Objekt gerichtet haben. Auf den ersten Blick scheint wenig Bemerkenswertes daran zu sein. Was es philosophisch interessant macht ist die Tatsache, dass in der einschlägigen Literatur allgemein angenommen wird, dass gemeinsame Aufmerksamkeit erst dann wirklich gemeinsame Aufmerksamkeit ist, wenn die Situation für alle Beteiligten von einer gewissen Offenheit gekennzeichnet ist. Mit Offenheit ist hier gemeint, dass es für alle Beteiligten durchsichtig sein muss, dass sie gerade gemeinsam auf etwas aufmerksam sind. Es ist diese Offenheit, die es so schwierig macht das Phänomen zu analysieren, laufen doch die Augenscheinlichsten dieser Versuche meist auf recht unplausible Analysen in Form gemeinsamen Wissens hinaus. Da muss dann X wissen, dass Y weiß, dass X weiss, dass Y weiß, dass X und so weiter, ohne dass die iterativen wechselseitigen Wissenszuschreibungen je ein Ende nehmen könnten.

Einen der innovativsten jüngeren Ansätze diese Offenheit einzufangen, ohne dabei in die offensichtliche Falle einer Analyse als gemeinsamen Wissens zu fallen, stammt von John Campbell. Im Einklang mit seiner naiv-realistischen (naive realism) Erkenntnistheorie schlägt er vor gemeinsame Aufmerksamkeit als eine primitive Erlebnisbeziehung der beteiligten Aufmerksamen zu analysieren. Gemäß dieser Analyse sind die jeweils gemeinsamen Aufmerksamkeiten der Beteiligten und das erlebte Objekt die wechselseitigen Konstituenten für die erlebte Dreiecks-Beziehung gemeinsamer Aufmerksamkeit. Das bedeutet, dass gemeinsame Aufmerksamkeit von den Beteiligten nur dann erlebt werden kann, wenn sie auch wirklich in einer solchen Erlebnisbeziehung zu den anderen Aufmerksamen stehen.

In meiner Masterarbeit interpretiere ich zunächst ausführlich Campbells Begründung und weise dann sein Argument für den Ausschluss reduktiver-experientieller Erklärungsansätze des Phänomens entschieden zurück. Ich untersuche dann die Möglichkeit weiterer Motivationen für Campbells Vorschlag sowohl aus den Bereichen der Philosophie des Geistes als auch aus der Theorie der Kollektiven Intentionalität. In beiden Bereichen kann ich nachweisen, dass sie keine zwingenden Gründe für einen Relationalen Ansatz gemeinsamer Aufmerksamkeit liefern. Sodann kritisiere ich Campbells Ansatz ausführlich und zeige, dass sein Vorschlag sich erstens nicht im Rahmen seiner eigenen Vorgaben konsistent erklären lässt und ferner, dass er auf einer mit der Phänomenologie gemeinsamer Aufmerksamkeit nicht vereinbarer Vorstellung beruht, die den des subjektiven epistemischen Status des Erlebens gemeinsamer Aufmerksamkeit betrifft. Abschließend plädiere ich für die Ausarbeitung einer vermutungsbasierten Theorie gemeinsamer Aufmerksamkeit.

Abstract:

Joint attention is an inconspicuous psychological phenomenon occurring when two or more people are jointly attending to an object. On a first view there is little remarkable about it. What makes it philosophical interesting is the fact that there is a general agreement in the relevant literature that it is characterized by a certain openness. This openness is supposed to mean that it must be transparent to all the involved that they are jointly attending. It is this openness that makes the analysis of joint attention such a challenge. The most self-evident attempts to cash out the openness will almost inevitably end up as analyses in terms of common knowledge: X must that know that Y knows that X knows that Y knows and so on with out a genuine possibility of ending the infinite iterations of mutual knowledge ascriptions.

One of the most innovative recent proposals to capture this openness without falling into the obvious trap of an analysis in terms of common knowledge, stems from John Campbell. In line with his naïve realist picture of perception Campbell argues that we best analyse joint attention as a three-place-experiential relation. On his account the co-attention of each of the attenders is constituted by the other's co-attention. Because of this constitutive relation one can only experience being in a joint attention situation, if one really is in a joint attention situation.

I begin my thesis with a detailed interpretation of Campell's argument before I reject his argument for the preclusion of reductive-experiential accounts of joint attention. I proceed to investigate potential further motivations for Campbell's proposal as much from the Philosophy of Mind as the Theory of Collective Intentionality. For both fields I can show that they offer no compelling reasons for giving a relational account of joint attention. Lastly, I criticize Campbell's proposal extensively and show that a.) we cannot explain it in a way consistent with its own presuppositions and b.) that it is build at least in part on an implausible phenomenological picture of the experiential warrant joint attentional experiences transmit to the agents. Closing, I offer a short argument for the development of a comprehensive account of joint attention in terms of an assumption-based theory of joint attention.

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