<center>**Inferentialism and collective intentionality[1]**</center>

1. Introduction: project aims and relevance

Inferentialism and the analysis of collective intentionality are two important new approaches in recent international philosophical research, approaching from different theoretical angles the core philosophical issues of social action, practical reasoning, and social ontology. This project aims at exploring the relations between the inferentionalist and the intentionalist approach, thus filling a research lacuna in current research (the only existing studies in the received literature that addresses the topic are Zamorra-Bonilla 2011; de Prado Salas/Zamora-Bonilla 2015).

Inferentialism is at heart a theory of meaning. Its core claim is that language is a social art and meaning a matter of inferential roles that linguistic items acquire vis-à-vis *normative practices* of giving and asking for reasons (Brandom 1994, 2000, 2007; Kukla/Lance 2009; Peregrin 2014), within which social rules, roles, statuses, etc. are being collectively instituted and enacted. Inferentialism thus urges a pragmatic reconstruction of semantics, explaining linguistic meaning as a function of the underlying collective interactions and normative attitudes.

The analysis of collective intentionality addresses the question: What is it for a group of agents to intentionally do something *together*? Its core claim is that such plural actions involve *joint* or *shared intentions* which do not straightforwardly reduce to ordinary intentions driving actions directed at individual goals (Schmid 2009, Schweikard/Schmid 2013). A number of accounts of shared intention have been developed in the received literature (Gilbert 1989, 1996; Searle 1990, 1995; Tuomela 2007, 2007; Bratman 1999, 2014). In spite of the differences between these and other accounts, they all agree that shared intention is key to an understanding of the nature of social rules, roles, statuses, institutions, and practices.

Both inferentialism and the analysis of collective intentionality thus converge in their emphasis on the role of shared activities, but they diverge remarkably in their approaches. While collective intentionality analysis emphasizes the role of shared goals in joint action, inferentialism gives pride of place to cooperative practices of mutual attribution of normative statuses of commitments and entitlements, in the context of which linguistic performances as well as thoughts of rational agents are supposed to acquire conceptual significance (Brandom 1994 calls them *practices of deontic score-keeping*). The convergence as well as the conflicts between these approaches obviously raise a host of issues. What is the relation between shared goals and mutual normative score-keeping? What kind of commitments to joint intentions and group agency is required by the appeal to cooperative practices that institute normative statuses? Are they consistent with "standard" accounts in the tradition of the analysis of collective intentionality (viz. the views of Bratman, Gilbert, Searle and Tuomela)? Or do they suggest an alternative to such accounts — perhaps one that is more consistent with recent attempts to provide *minimalist* accounts of joint action that assume less by way of cognitive sophistication on the part of

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[1] The submitted proposal is a resubmission.

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agents coordinating their activities around shared goals (cf. Millikan 2005; Tollefsen/Perron/Dale 2011; Butterfill 2012; Pacherie 2013)? Last but not least, current work in cognitive and behavioral sciences increasingly documents a key role of interactional activities, based on cooperative motivations and skills of social cognition, in the development of higher socio-cognitive capacities, including linguistic competence and skills and motivation for normative reasoning and agency (cf. Eilan 2005; Enfield/Levinson 2006; Call 2009; Tomasello 2008, 2009, 2014, 2015). In view of these important advances, a pertinent issue to address is how plausible the commitments of inferentialists and theorists of collective intentionality respectively are in the light of this empirical work, and what light, in turn, their analyses shed on that research.

Surprisingly, however, these issues are rarely raised, still less thoroughly explored in the received literature. With the exception of Zamorra-Bonilla (2011) and de Prado Salas/Zamora-Bonilla (2015), the two research programs have never been confronted with each other in the received literature, and no attempt has been made so far to explore and critically assess their relationship (as regards premises, desiderata, possible complementarities, etc.) within a research project that involves researchers from both sides. The ambition of this project is to fill this obvious lacuna by establishing an international research network comprising leading researchers with complementary competences in both domains, thereby providing a platform for a constructive critical dialogue between them. The central issue we propose to address in the project—*How to reconstruct the relation between social practices instituting social-normative realities (rules, roles, statuses) and collective intentionality*?—is arguably of fundamental philosophical interest and has potentially far-reaching interdisciplinary ramifications (as current empirical research on social, cognition and shared intentionality in neighbouring disciplines documents). A specific promise and novelty of this project dwells in the fact that we propose to approach the foundational issue under consideration systematically from two important theoretical perspectives, engaging them in a mutual critical conversation and cross-fertilization. Due to the synergy based on complementary competences of research partners, carefully formulated over-arching research questions, and coordinated joint research activities, the project promises to open new research territories and produce a significant progress.

2. State of the art

2.1. Inferentialism

The term *inferentialism* was originally coined by Robert Brandom (1994, 2000) as a label for his distinctive version of a use-based theory of meaning, designed to provide a viable theoretical alternative to the traditional *representationalist* account of semantic significance of linguistic items as consisting in their referential powers. The basic idea adumbrated by Sellars (1949, 1953, 1954) and further elaborated by Brandom (1994, 2000, 2007) is sometimes called *normative functionalism* (Maher 2012). On this view, meaning of linguistic items is to be reconstructed in terms of normative roles they play in the economy of intersubjective practices, whose participants treat their use as governed by shared rules. Specifically, discursive practices of making, challenging, defending and retracting claims are given pride of place as a model of pragmatic structure

in which normative roles of sentences are constituted, since mastery of such practices is taken to distinguish *sapient* agents acting on and responding to reasons. Because of its crucial role as a vehicle of this *game of giving and asking for reasons* (hereafter GOGAR), language must provide for a system of sentences in *entailment* and *incompatibility* relations, capable of being premises and conclusions in (broadly understood) *material* inferences as well as in practical inferences issuing in actions (cf. Peregrin 2014).

The semantic level of inference and incompatibility is reconstructed by Brandom in terms of what communicating agents are *doing* when producing and consuming discursive moves. They are modelled as treating linguistic performances as effecting changes in *normative statuses* comprising various kinds of *commitments* and *entitlements*, which yield the *content*s of their claims, etc. They do so via *deontic score-keeping*: keeping track of various commitment-preserving relations (commitment to one thing counting as a commitment to another), entitlement-preserving relations (entitlement to one thing counting as an entitlement to another), and incompatibility relations (commitment to something precluding an entitlement to another). Paradigmatically, in making an assertion one is treated as *committing* oneself to giving reasons for it when challenged and *entitling* others to reassert the claim deferring challenges back to the author. In general, then, commitments and entitlements are explained as coming into being by being *attributed*, *acknowledged*, and *undertaken* by participants of GOGAR, against the backdrop of socially coordinated and calibrated *normative attitudes* (such as, e.g., correcting, positive and negative sanctioning, etc.). This social distribution of GOGAR is an essential factor intended to provide for the multiplicity of perspectives the intersections of which makes possible the *objectivity* of linguistic content and its *representational* dimension (Brandom 1994, 2000).

Brandom-style inferentialism, moreover, construes *all* propositionally contentful episodes, including attitudes involved in deliberation and agency, as constituted within normative practices of the type described above. Actions, indeed, are performances „caught up in our practices of giving and asking reasons as moves for which reasons can be proffered and sought" (Brandom 2001, p. 11) and „the propositional contents of the intentional states appealed to in practical reasoning presuppose assertional-inferential proprieties, and hence linguistic social practices' (Brandom 1994, p. 231). Inferentialism thus endorses the idea that rational agents *act on* and *respond to reasons*, but not the order of explanation of those traditional accounts of mindfulness and rational agency that understand normative statuses as a social superstructure presupposing a pre-existing infrastructure of full-blown intentional states. Rather, to be a *mindful* and *rational agent* means to be *a locus of responsibility* and *accountability* "in the social space of reasons", where reasons are understood in terms of normative statuses conferrable on agents through practices of deontic scorekeeping. (Paradigmatically, while beliefs are reconstructed as doxastic commitments, intentions are accounted as practical commitments — cf. Brandom 2000)

Inferentialists are aware that their social-pragmatist perspective on human sapience challenges some well-received philosophical views on linguistic meaning, intentionality and agency.

First, as already pointed out, inferentialism aims to provide an alternative to the representational

paradigm by grounding a theory of meaning in inferrability (a matter of certain pragmatic relations) rather than in reference (a matter of word-to-world relations). Moreover, because beliefs, intentions and related propositional attitudes are reconstructed in terms of normative statuses conferred on agents vis-à-vis assertional-inferential proprieties implicit in the score-keeping practices of GOGAR, inferentialism differs markedly also from action-oriented approaches in the tradition of Grice (1989). The latter account for meanings of linguistic items via special communicative intentions (of a reflexive type) and conventions, helping themselves to full-blown propositional attitudes — including meta-representations of such attitudes required by recursive inferences about other`s intentions and by common-knowledge assumptions— supposed to underlie pre-linguistic intentional agency and interaction, including communication (cf. Lewis 1969; Schiffer 1972; von Kutschera 1983; Meggle 2010).

Second, if intentional attitudes are reconstructed as normative statuses presupposing the whole social network of distributed score-keeping attitudes, inferentialism allows us to dispose of the traditional idea of a contentful mental state as an internal state of an individual organism (whose content is to be physically tokened in the individual organism). Interestingly, some cognitive scientists following Brandom (see also Brandom 2004) have taken the shift from intentional states to normative statuses to its consequences in such a way that it mutated into what Steiner (2014) has come to call "vehicle-less externalism": to the extent that mental statuses constitutively depend for their content on normative social practices, they are not realized in any internal state of the organism as their "vehicle" (rather, individual organisms are viewed as responsible and accountable *owners* of such statuses). This is a *radical dissociation* of the *statuses* from any *states* of the individual (see also Sedivy 2004).

Last but not least, if intentional states are normative statuses, there is no reason to insist that they must be restricted to individual agents and denied to collective ones (cf. Zamora-Bonilla 2011; de Prado Salas/Zamora-Bonilla 2015; Schmid 2009). Viewed thus, the situation has a lot in common with the theory of the intentional stance developed by Dennett (1987), according to which intentionality can be attributed wherever we encounter some behavioural functioning complex enough to make us grasp and explain it in terms of intensions. By analogy, then, it could be suggested that collective intentionality can be attributed, from within the right interpretive-normative stance, wherever groups/collectives function in ways complex and similar enough to the ways of individual agents, so that they could be treated as proper bearers of distinctive commitments and entitlements, and hence as genuine bearers of social accountability.

2.2. Collective intentionality analysis

Collective intentionality is the power of our minds to be jointly directed at objects, states of affairs, matters of fact, goals, or values. The paradigm for or collective intentionality focused in most of the received literature is joint or shared intention in pursuit of collective goals. Other forms of collective intentionality include joint attention, shared belief, collective acceptance, and collective emotion. Collective intentional attitudes permeate our everyday lives from the early forms of joint attention to proper joint action, the formation of peer-

groups, social organization, and social institutions (cf. Schweikard/Schmid 2013). Collective intentionality is a term coined by John Searle (1991), though the idea goes back to Wilfrid Sellars' we-intention, and further back to early 20ᵗʰ century phenomenology (earlier conceptions of collective intentionality can be found in conceptions such as Rousseau's "general will", or perhaps even as far back as Aristotle's conception of joint striving, or *koinonia*).

Over the last quarter of a century, collective intentionality has become the focus of an extended debate in international philosophical research, and a wide variety of analyses of what it means to share an intention, belief, or an emotion have been developed. The main controversial question in the debate is what exactly about intentionality it is that can be collective, or shared. According to the tripartite structure of intentionality – subject or "bearer" of intentionality (*whose* intentionality?), mode of intentionality (*what kind* of intentionality, e.g., belief or intention?), and content of intentionality (what is the intentionality *about?)*, three groups of received theories of collective intentionality can be distinguished. *Subject accounts* argue that what is collective about collective intentionality is (primarily) the subject. The view here is that in order to intend collectively, individuals have to be some sort of a (however temporary) group, and that collective intentionality is to be ascribed to them collectively, as a unit, rather than distributively. The most prominent subject-account of collective intentionality in the received literature is Margaret Gilbert's (e.g., Gilbert 2009). The other competitors in the debate usually try to avoid the assumption of such a plural subject. Mode-accounts argue that collective intentionality is a special and irreducible *form* or *kind* of intentionality of individuals. Prominent authors of this group include John Searle and Raimo Tuomela (e.g., Searle 2010; Tuomela 2014). Content-accounts argue that what is collective about collective intentionality is a special and irreducibly collective *content* of the intentionality in question. The most prominent author in this group is Michael Bratman (e.g., Bratman 2014). These "standard" accounts are quite demanding as regards their normative and/or cognitive requirments. There are also *minimalist* analyses trying to account for joint action/intention without appeal to rich, propositional structures of intentions and saving on both normative and cognitive assumptions (cf. Millikan 2005, 2014; Risjord 2014; Tollefsen 2005; Tollefsen/Perron/Dale 2011, Pacherie 2013).

These differences notwithstanding, there is a widely shared agreement between these theories that in some form or another, collective intentionality is *different* from individual other-directed intentionality, so that there are limits to reducing collective intentionality to individual intentionality. Furthermore, it is argued that collective intentionality is basic for the understanding of social cognition, and that any understanding of normative attitudes towards other agents, social norms and conventions and normative social practices presuppose collective intentionality. Collective intentionality analysis aims at providing an account of the nature of social status and social rules and deontic powers, thus contributing to the debate on the sources of normativity.

Collective intentionality analysis has provided a rich box of conceptual tools that have been applied to a variety of topics in a wide range of academic disciplines other than philosophy, most notably economic theory (analysis of coordination and cooperation and the evolution of social norms and structures), linguistics (the

theory of meaning), and developmental psychology (most notably, the analysis of the development of cooperative communication). In current social ontology, collective intentionality (esp. collective acceptance and recognition) is widely acknowledged as a basic building block of social reality.

Perhaps most important in the context of this research project is that collective intentionality analysis provides an understanding of the nature of meaning and social norms that accounts for the social dimension of meaning that is developmentally plausible and avoids the problematic assumption that in order for an agent to have intentional attitudes, that agent needs to be participating in a normative social practice of mutual score-keeping. This assumption – that is made, among other positions, in inferentialism – is problematic for several reasons. First, there is increasing evidence that many "higher" non-human animals are capable of having proper intentions and beliefs (rather than just perceptions and goals), without engaging in mutual normative score-keeping (cf. Hare 2009; Tomasello et al. 2005; Tomasello 2008, 2014). Second, the assumption can be challenged from the developmental perspective. Behavioral researchers have amassed impressive evidence that human babies come to engage in the kind of cooperative practices that ultimately develop into human linguistic communication (and discursive practices) in virtue of being equipped with pre-existing skills and motivations of shared intentionality (e.g., Tomasello et. al. 2005; Tomasello 2014). Third, if it is claimed that all intentional attitudes are basically social facts, the nature and emergence of social facts themselves becomes something of a mystery.

Collective intentionality analysis, however, can accommodate evidence of intentional activities in non-human animals and human infants. Also, it has some promise to provide a de-mystifying account of social facts, including social norms and statuses. The view of social normativity that emerges from collective intentionality analysis tends to see it as a social extension of instrumental normativity. Just as individual intentions place normative requirements on the agent's behaviour in such a way that given his or her intention, he or she is required to behave in a way that is conducive to the attainment of the goal, collective intentions establish relations between the agents that are such that each participant is required to behave in a goal-conducive way in virtue of an intention *all* of them share. In this view, instrumental normativity is not restricted to the domain of an agent and his or her own (future) self and behaviour, but is extended to the relation between agents; collective intentions include a unified "rational perspective" (some aspects of this idea have been spelled out by Carol Rovane (1998) as well as in subsequent research). This form of unification constitutes a system of mutual normative expectations between the participants, and is the nucleus for the development of social norms according to which social status (such as involved in the inferentialist conception of intentional states) is assigned.

3. Overarching research questions
3.1 Sellarsian roots of inferentialism and collective intentionality analysis

Inferentialism is widely recognized to be the legacy of Wilfrid Sellars` original analysis of propositional content in terms of normatively constrained functional role of linguistic (and derivatively mental) items "in the logical space of reasons" (basically, in social practices of giving and asking for reasons). Many publications have explored in detail this ancestry (Brandom 1994 and 2000; Peregrin 2014b; O`Shea 2007; deVries 2005). Much less attention, however, has been devoted to the interesting fact that it was Sellars who introduced at the scene the very concept of "*we*-intention", subsequently recognized by the leading proponents of the analysis of collective intentionality as their source of inspiration (Tuomela/Miller 1988; for brief overviews of Sellars' concept of *we*-intention and its sources see Hurley 2000; O'Shea 2007, Schmid/Schweikard 2010; Schweikard/Schmid 2013). Even though it has been registered in the received literature that, in Sellars' practical philosophy, *we*-intention plays the role of making attitude-dependence of value judgments compatible with their claim to intersubjective validity, no systematic and detailed attempt has been made to locate Sellars' conception of *we*-intention in the broader context of his inferentialism.

This, we submit, is an obvious research lacuna, suggesting a promising opening of the debate between inferentialism and collective intentionality analysis. Our research in this part of the project aims at addressing the following questions:

1. What is the nature and structure of Sellarsian *we*-intentions?

   - Is Sellars' conception a subject-, mode-, or a content-account of collective intentionality? And how does — or could — Sellars deal with the problem of the group mind?

   - What kind of commitments do Sellarsian *we*-intentions involve? How do *we*-intentions licence normative expectations between the participants to the effect that they will deliver their parts to what they collectively intend?

   - How does Sellars deal with the relation between instrumental, social (conventional), and moral normativity, or with the objection that moral normativity is ultimately reduced to instrumental normativity?

2. How exactly does Sellars' conception of we-intention (and, more generally, his specifically Kantian reconstruction of practical philosophy) fit into his overall inferentialist program?

   - If, as Sellars presupposes (in the „myth of Jones", Sellars 1956), normative *ought-to-be's* are already governing our practical and other thinkings-out-loud, isn't there an ostensible circle involved in his attempt (a) to explain conceptual content and hence thinkings – practical [i.e., intendings], inferential, and perceptual – in terms of socially instituted ought-to-be rules, and then (b) attempting to explain the 'ought's themselves in terms of a specific kind of 'we'-intention?

   - Could the „circle" be avoided (or rendered innocuous) by shifting to the evolutionary point of view — e.g., via a sort of „bootstrapping" accounts (suggested in recent literature by the so-called *minimalist* accounts of intentionality such as Millikan 2005, 2014)?

- What kind of specific inferential articulation do *we*-intentions (as conceptually articulated "thinkings" of a sort) have (e.g. their relation to beliefs, volitions and actions)?

3. What exactly is the conception of a *group* assumed in Sellars' we-intentionality?
   - Put more bluntly: who are "we" in Sellars' conception? What particular relations are assumed to exist between the participants in *we*-intention?
   - How does the "we-dependency" of individual participatory intentions in Sellars' conception relate to Brandom's change from the "I-We"-paradigm to the "I-Thou"-paradigm?
   - How is the transition been made from the "fact" of a *we*-intention to moral obligation in this conception?

Answers to these and related questions will provide a solid base for the dialogue between inferentialism and collective intentionality analysis. Given the prominent role of Wilfrid Sellars in both domains of research, it can be expected that the results of this part of the project will attract a great deal of attention, with good prospects of being published in good international venues. Research activities on this agenda will be conducted in close collaboration with leading experts on Sellars` philosophy of intentionality and agency — in particular, Ch. Gauker (University of Salzburg) and J. R. O'Shea (University College Dublin (UCD)) agreed to be external collaborators and advisors of the project.

3.2. Mutual normative scorekeeping and joint intentionality

In this core part of the project, our research will focus on the foundational question of whether collective intentions (related intentional states) are to be analysed as normative statuses, psychological states or, rather, as hybrid states of a sort. We will examine and compare in detail the *inferentialist* approach proposing to reconstruct (joint) intentionality in terms of normative statuses (instituted by practices of mutual normative scorekeeping) and the *intentionalist* approach urging the reverse order of explanation.

On the one hand, the inferentialist approach has been challenged (from intentionalist positions) on the ground that its core operative concepts of *deontic status* and *mutual scorekeeping* (as cashed out in *commitments* and *entitlements*) are under-analysed. Research in collective intentionality, however, has come up with rather well-developed notions of deontic status as constituted by collectively intentional attitudes such as collective acceptance or recognition. In particular, influential *normativist* accounts of collective intentionality such as Margaret Gilbert's have always understood collective intentions as joint commitments, that is, as a structure of obligations and entitlements rather than some purely descriptive psychological fact (Indeed, Gilbert (1989, 1996) has extensively analysed the type of normative inferences, which joint commitments license.) On this view, the ontology of mental attitudes is a *de-ontology*: normative status is what (most) psychological facts are. Such analyses thus promise to offer deeper elucidation of fundamental inferentialist categories in terms of collective intentional attitudes.

In a similar vein, intentionalists are likely to voice misgivings about inferentialist approach to language. If communicative exchange of discursive moves within GOGAR with its implicit score-keeping infrastructure

is fundamentally a cooperative activity, is it not amenable to analyses in terms of collective intentional attitudes? If so, does this not suggest *explanatory* primacy of intentional attitudes — including collective attitudes — over discursive practices? Perhaps unsurprisingly, many intentionalists are sympathetic to Grice-style accounts of intentional communicative interaction that emphasize (a) the role of intentional attitudes (in particular, special communicative intentions) in communication, and (b) its cooperative, indeed joint character (involving a joint commitment, based on a common ground, to make oneself transparent to the recipient by appropriately disclosing one`s cooperative intention to communicate something of relevance to her). Of particular interest here are also hypotheses recently formulated by empirical scientists that combine elements of collective intentionality analysis (in particular, the views of Bratman and Gilbert) and Gricean cooperative approach to verbal and non-verbal intentional communication (cf. Tomasello 2008, 2014, Clark 1996, 2006). These hypotheses point to *developmental* primacy of the motivations and cognitive skills of shared intentionality required for joint action as playing a key role in the development of higher socio-cognitive capacities, including full-blown competence in linguistic communication and skills and motivation for norm-guided reasoning and agency (cf. several contributions in Enfield/Levinson 2006).

Inferentialists, on the other hand, would likely retort to these charges that intentionalists analyses already presuppose agents capable of having conceptually articulated intentional attitudes — as well as higher-order representations of such attitudes in themselves and others — then proceeding to explain how intentional attitudes can be *shared* so as to underwrite joint activities of a group of agents. For inferentialists, however, the principal philosophical challenge is to explain the nature of conceptually articulated attitudes (expressed in language or thought). At this juncture they propose that in order to entertain and share conceptual attitudes sapient agents must appropriately coordinate and calibrate their normative (paradigmatically, corrective) attitudes (towards one another`s behaviour and attitudes) underwriting socio-linguistic practices characteristic of GOGAR (cf. Brandom 1994; Peregrin 2014; Sharp 2012). They submit that only in this way can we do justice to a constitutive normative dimension (of correctness) of conceptual content (following Wittgenstein`s (1953) argument to the effect that the distinction between *being right* and merely *seeming to be right* makes sense only in the intersubjective context of mutually responsive behaviour of social peers). Normative attitudes expressed in mutually responsive behaviour thus assume explanatory primacy in the inferentialist picture.

It is compatible with inferentialism to treat normative attitudes as expressing (or embodying) rudimentary mental states of sorts, but full-blown propositional attitudes are explained as emerging only through complex social coordination and calibration of such attitudes, hand in hand with conventionalized linguistic means of expressing finely differentiated propositional contents. Thus Peregrin (2014a) has proposed to analyse basic normative attitudes as similar in kind to behavioural propensities famously described by Gendler (2008) under the label of *aliefs*. Moreover, various *minimalist* analyses of joint intention and action have recently been formulated that reduce cognitive load on the part of agents successfully coordinating their activities around shared goals. From a developmental perspective, these analyses might have some promise when it comes to

accounting for coordination of normative attitudes expressed in mutually responsive behaviour, reconstructing it in terms of joint activities of a sort that do not presuppose possession or understanding of full-blown propositional attitudes on the part of agents (cf. Millikan 2005, 2014; Butterfil 2012; Risjord 2014; Tollefsen 2005; Tollefsen/Perron/Dale 2011; Pacherie 2013).

Apparently, both contesting approaches reviewed above have some strong as well as weak cards. But the current state of the debate between them is not sufficiently developed, calling for further critical development to asses properly foundational issues under consideration. In this part of the project we aim to fill the lacuna, our research revolving around the following foundational questions and problems:

1. Can collective intentionality analysis stand on its own?

   - Specifically, how can collective intentionality analysis address the objection that propositionally articulated conditions of satisfaction of contentful intentional states (individual or collective) assume the role of *unexplained explainers*?

   - Indeed, can there be conceptually articulated mental states such as intentions (in *I*-mode or *we*-mode) — "thinkings", as Sellars called them — not having any systematic inferential links to perceptions and actions? And are such links conceivable without taking into account social practices of the sort that inferentialism emphasizes?

   - Is inferentialism thus better positioned to account for individuation of contentful states — including intentional states — thereby promising to provide a foundation for collective intentionality (rather than the other way round)? In particular, can normative attitudes — construed as other-directed behavioural propensities in which rudimentary mental states are embodied — ground both linguistic and mental intentionality?

   - And can group intentions (and related intentional attitudes) be construed as statuses resulting from intersubjective normative scorekeeping rather than mental states individuated independently of social practices — i.e. in terms of their conditions of satisfactions as determined by their pre-given representational content (as suggested, e.g., by Zamora-Bonilla 2011; de Prado Salas/Zamora-Bonilla 2015).

2. Can collective intentionality analysis provide accounts of joint action and intentionality that could ground basic concepts of inferentialism?

   - If basic normative statuses are instituted through social-normative attitudes and practices (of mutual normative scorekeeping), it seems not satisfactory to treat those attitudes and practices themselves as theoretical primitives. Can they be plausibly analysed without taking into account intentional attitudes in general and collective intentional attitudes in particular? In particular, can there be the practice of mutual normative scorekeeping without an underlying joint commitment? Could, for instance, M.

Gilbert's (1989, 1996) notion of *joint commitment* — as a hybrid mental-normative state — be elaborated so as to provide a precondition of the practice of normative scorekeeping?

- Eventually, could alternative collective intentionality analyses provide plausible reconstructions of normative statuses as conferred on agents by collective attitudes of acceptance/recognition of a sort (e.g., influential conceptions developed by Searle, Tuomela, Pettit, and others)?

- Is it plausible at all to treat linguistic communication as (mostly) a cooperative activity, without having an account of shared attention, common ground, joint goals, intentions and commitments as underwriting communication, including exchanges of discursive moves (making, challenging, defending, retracting claims) that belong to the game on giving and asking for reasons?

- Is then some modification "socializing" Grice-style account (communicative intentions, abductive inferences based on the presumption of cooperation) needed to do justice to the intentional structure of cooperative communication? In particular, could M. Gilbert's account of *joint commitment* be useful in this respect, and how could it be related to current empirical work in cognitive pragmatics and developmental psychology (Tomasello 2008, 2014; Clark 1996, 2006; Levinson 2006)?

3. Can *minimalist* analyses of joint intention and action — requiring less cognitive sophistication than classical analyses — provide a more plausible account of coordinated social practices that give rise to higher-level phenomena of normative score-keeping?

- Are minimalist analyses of joint intention sufficient to ground the kind of collective intentionality required by appeal to deontic statuses (e.g., along the lines suggested by Millikan 2005, 2014; Butterfil 2012; Risjord 2014; Tollefsen 2005; Tollefsen/Dale 2011), or is more structure needed for intention to be genuinely joint (e.g., along the lines of Schmid 2014; Perron/Dale 2011; Pacherie 2013)?

- What, in particular, makes such accounts to be accounts of *joint* action (rather than of coincidentally intersecting individualistic actions)? Do they really involve anything worth calling "joint intention", or do they rather involve more rudimentary psychological states and mechanisms?

- How exactly could more complex phenomena of collective intentionality and action — as well as of normative score-keeping — arise from this ground-level minimal intentions and joint actions (What, in particular, are the prospects for *bootstrapping* explanations here?)

The questions treated in this part are highly relevant for current philosophical research, it can be expected that the results can be published in decent outlets. Research activities on this agenda will be conducted in close collaboration with leading experts on inferentialism and joint action analysis. In particular, M. Risjord (Emory University) agreed to participate in the project (as a member of the research tem of the Czech partner).

3. 3. Evolutionary-psychological perspectives

Closely connected questions concern the relation between the phenomenon of normative score-keeping and more basic phenomena of intentional agency in prelinguistic infants (joint attention, shared goals, joint

intentionality and action) and thinking and purposive behaviour in great apes. If inferentialism claims that a system of deontic statuses is constitutive of full-blooded intentional attitudes, it is difficult to explain how such systems could come about, both from a phylogenetic and an ontogenetic perspective. However, it has been argued in important branches of current scientific research (e.g. Tomasello et al. 2005, Tomasello 2008, 2009, 2014, 2015) that the kind of collective intentionality that involves proper deontic status builds on more primitive forms of shared attention, goal-directed action and intentionality, and that it is in virtue of their pre-existing cooperative-mindedness, or shared intentionality, that human babies come to engage in the kind of cooperative practices that ultimately result in human linguistic communication.

In this part of the project, we propose to explore in detail these intriguing suggestions, drawing on and critically engaging important research trends in evolutionary, cognitive and developmental psychology (and other relevant fields interacting in this lively interdisciplinary area). In particular, we shall focus our research on the following central issues:

1. How can we plausibly account for abundant evidence of (a) intentional agency in prelinguistic infants (joint attention, shared goals, joint intentionality and action, second-person self-monitoring) and (b) thinking and purposive behaviour in great apes — cognitive representation, causal-instrumental reasoning, self-monitoring, social cognition, etc.? What kinds of *intentionality, thinking, reasoning* — both individualistic and joint — can be presupposed in psychological accounts of such goal-directed activities (If not full-blown propositional attitudes, then what kinds of "proxies" — e.g., more primitive sorts of "intending", "thinking", "reasoning")?

2. More specifically still, what could have been the role of joint intentionality and action — or their cognitively, affectively and socially more rudimentary antecedents—in emergence and maintenance of complex social-normative practices of giving and asking for reasons (including the communicative means serving as their vehicles), and hence of social-normative score-keeping?

3. What is the connection of such skills (and requisite cooperative motivations) to skills of communicative interaction, both pre-verbal and verbal? Do skills of joint intentionality and action precede or rather co-evolve and mature with skills and motivations for intentional communication? If the later is the case, when, why and how does a mechanism of joint commitment enter the picture? (cf. Tomasello 2008, 2014, Levinson 2006, Clark 2006, Moore 2014, 2015).

4. What light is shed on this issue by recent evolutionary and psychological approaches such as, e.g., Michael Tomasello's important *shared intentionality hypothesis*: proceeding from motivations and skills of individual intentionality, via shared attention and joint intentionality, towards motivations and skills of collective intentionality that provide psychological infrastructure for cultural phenomena, norm-guided agency and conventional linguistic communication (cf. Tomasello et al. 2005; Tomasello 2008, 2014)?

5. What could be an evolutionary plausible explanation of joint intentionality and action as emerging from more elementary cognitive and behavioural forms and what role is to be played in it by environmental and

social factors — e.g. the need of joint coordination in foraging activities or group-level cooperation vis-à-vis inter-group competition (viz. hypotheses suggested, e.g., by Tomasello 2014; Sterelny 2012; co-evolutionary models such as Boyd/Richerson 2004; Bowles/Gintis 2011; or niche-construction models such as Odling/Smee 1996)?

6. How do current psychological accounts of these phenomena relate to — e.g., drawing on, challenging, supporting, complementing — a) standard collective intentionality analyses and b) *minimalist* collective intentionality analyses? In particular, if the interactional experiences and skills of engaging in joint activities are supposed to contribute to the development of higher socio-cognitive skills (including full-blown mindreading skills involving representations of propositional attitudes and recursive inferences embedding them, what kind of intentional (proto-intentional structure) they require (cf. Koreň 2016b)?

The questions to be attacked in this part of the project are highly relevant not only for current philosophical research, but have interdisciplinary ramifications. It can therefore be expected that the results of our research on this agenda would attract attention of researchers from other disciplines, and could be published also in interdisciplinary-oriented journals. Our work here is expected to benefit from confrontation of our research ideas with recent work of leading experts (in particular, M. Tomasello) working in the area (via international workshops, conferences and edited volumes).