Representationalism or Anti-representationalism?
Perspectives on Intentionality from Philosophy and Cognitive Science

§1 Project outline: topic, questions, aims in relation to current call

Notions of intentionality – of linguistic meaning, mental content, *aboutness* generally– lie at the heart of our conception of ourselves, and of some of our fellow creatures, as perceiving, thinking and acting beings. Understanding intentionality is therefore vital to the philosophical quest to understand ourselves and our place in the scheme of things. One central question here in much recent philosophy has been whether intentionality, fundamentally, is a matter of representing an independent reality ('representationalism'), or rather one of enabling adaptive forms of action and interaction ('anti-representationalism'). In crude metaphors: are thoughts *mirrors of reality* or *tools for coping*? Scepticism towards a sharp opposition here is – as ever in philosophy – a third possible line, but this would still require clarifying the relationship between the two, seemingly opposed perspectives.

A number of individual philosophers, and some established research groups, at different institutions in Norway, work on intentionality in ways that can be seen to bear on this central philosophical question. (cf. §4.2) The research group behind this project believes there is much to be gained from closer cooperation. The current project proposes to nurture an intellectual milieu and set up an organizational framework within which individuals and groups in Norway working on intentionality can constructively engage with each other's separate lines of research, lines often drawing on diverse traditions of thought and literatures. The opposition between *representationalism* and *anti-representationalism* presents itself as a fruitful, unifying and structuring theme for these collaborations.

By supporting the relevant research groups and individuals, and by promoting collaboration between them, the project aims to improve the overall quality of the work of these groups and individuals. We will thereby be addressing two of the fundamental criticisms of the evaluation report, viz. *low levels of collaboration* **and** *publication.* **By looking carefully at the crucial relevance of metaethical concerns to intentionality, we also address a third criticism, viz.** *the neglect in Norwegian philosophy of metaethics as a vital, interlinking area of philosophy, straddling the theoretical-practical divide.* **We believe the prospects for success are very good in view of the fact that we are building on groups that are already somewhat established.**

§2 Scientific background: Representationalism v. anti-representationalism. Scientific aims.

Beliefs, desires, utterances, cognitions, and, arguably, perceptual experiences exemplify intentionality – states or acts that somehow concern something beyond themselves; things with content, meaning or aboutness. What is it for a state of mind to be contentful, or an utterance meaningful? Two intellectual traditions part company on this question.

Representationalists take intentionality to be at bottom a matter of representing the world. On their view, the basic notions to account for and explain the nature of meaning and content are those of *reference* and *truth*. The tradition can arguably be traced to Descartes' epistemological gambits in the *Meditations* and the empiricists' theory of ideas, but in its modern, lingustico-semantic form its main proponents run from Frege (1892), Russell (1918-19) and the early Wittgenstein (1922), via Montague (1973) and Kaplan (1977/1989), to (naming but a few contemporary figures of note) Fodor (1990), Dretske (1995), and Stanley (2008).

Anti-representationalists, on the other hand, hold intentionality fundamentally to be understood in terms of the patterns of use into which intentional states and utterances are woven. The basic notions to account for the intentionality of mind and language, on their view, are those of *(warranted) move,*

inference and/or *expression*. Though Hegel is occasionally cited as an early forerunner of this sort of view, it is most clearly identifiable in language-oriented philosophy of the twentieth century, with notable proponents running from the late Wittgenstein (1953), Sellars (1956) and Rorty (1979, 1982, 1986), to such contemporary writers as Brandom (1994), Horwich (2010), Williams (2010) and Price (2011a, 2011b).

Many of the most heated debates in recent analytic philosopy can be seen as 'gestalted' by this overarching opposition. It seems fair to say that analytical approaches to philosophical questions typically have presupposed a representationalist view. Anti-representationalists contend accordingly that their view has far-reaching implications not only for our understanding of mind and meaning, but for numerous philosophical questions in other domains. Thus the late Wittgenstein (1953), Rorty (1979, 1982, 1986) and Price (2011b) warn that philosophical thinking about morality, mathematics, modality, etc. is constantly in danger of being led astray by fallacious representationalist ideas, maintaining that an anti-representationalist conception of our discourse about these domains will dissolve or at least beneficially transform philosophical puzzlement about them. Indeed the very ideas of 'naturalism' and 'realism' – regulative ideas in much recent analytic philosophy, to the effect, roughly, that philosophy is methodologically continuous with natural science, where natural science is assumed to describe a mind-independent world, and potentially describe it *fully* – is arguably transformed under anti-representationalist assumptions (cf. Putnam 1982, Rorty 1986, Price 2011b).

Though questions in analytical philosophy will be the main focus of this project, the issue of representationalism versus anti-representationalism, as such or under some alternative nomenclature, is at least as prominent in philosophical traditions outside the narrowly analytical. To strengthen the collaborative potentials of the project, we will seek to integrate, to some extent, perspectives from these related traditions.

These traditions perhaps most obviously include American pragmatism, where the Deweyan idea of language as a 'tool for coping, not copying' has been a central influence on Rorty's anti-representationalism (cf. Rorty 1982, Ramberg 2009). Dewey more generally rejects the Cartesian divide between the subjective (representing) inner and objective (represented) outer as a suitably naturalistic starting point for understanding problem-solving behaviour (a classic paper here is Dewey 1896; see also Sinclair 2011 for general discussion of Dewey's naturalism). A further pragmatist idea of significance to our project is James' view of action and the will as fundamental to belief. This bears comparison to Wittgenstein's later philosophy, especially in *On Certainty* where cognitive attitudes of belief and knowledge are seen as something essentially integrated in practices (cf. James 1979, Wittgenstein 1974, Molander 2011).

The phenomenological tradition of Husserl, Heidegger, Sartre and Merleau-Ponty is of course intensely concerned with the idea of intentionality. Broadly speaking, one might see a development from a more representationalist view of intentionality in Husserl and Sartre, with a stress on respectively intentional internalism and externalism (cf. Dreyfus 1982 for this view of Husserl and Rowlands 2003 for a useful overview of Sartre's reaction to Husserl), to a more anti-representationalist, enactivist conception of intentionality in Heidegger and (most clearly) in Merleau-Ponty, the latter stressing the role of body and action in perception (cf. Merleau-Ponty 1962).

A recent development of great interest and significance is that all these three traditions – analytic, pragmatic, and phenomenological – increasingly are coming into contact with one another through the attempt to establish a *cognitive science*, i.e. a natural scientific mode of understanding of cognition and experience, in humans and other organisms. These contacts are stimulated by a contemporary debate in cognitive science over the proper conception of, and explanatory role for, the notion of representation. Representationalism, together with computationalism, as conceived by such analytical philosphers as Fodor (1975, 1990), has been *the* philosophy of classical cognitive science, at least for most practitioners. However, in recent years approaches to cognition of a more 'anti-representationalist' stripe, notably 'dynamicist' (e.g. Chemero 2009), 'embodied' (e.g. Gallagher 2005)

and 'enactivist' (e.g. Hurley 1998, Noë 2004, 2009) approaches, have presented a serious challenge to this orthodoxy. These interrelated challenges are partly inspired by the lines of thought from phenomenology and pragmatism referred to above, most notably those of Dewey and Merleau-Ponty.

Against this complex background the **overarching scientific aims of the project** can be summarised as follows:

a) **The critical exploration of the resources for and challenges facing anti-representationalism in its different guises.**

b) **The investigation of *interrelations* between different representationalist and anti-representationalist conceptions of intentionality, in different domains and approaches.**

In the following we outline several problem areas, many foreshadowed in the above overview, in which an opposition between representationalism and anti-representationalism has figured prominently. Each would be a natural focus point for workshops or courses. We end with a problem area directly concerned with point b), above, that has so far received little attention and would therefore potentially constitute a completely new avenue of research.

The exact content and structure of the workshops/courses would be decided in the initial meetings of the coordinating group and during the development of the project. We see this as especially appropriate in view of the fact the overarching aim of the call to which this proposal is a response is to encourage collaboration. We want to open for dynamic interaction between workshop/course themes and the interests of the coordinating group members, as well as their own contact networks.

§3.1 Representationalism v. anti-representationalism about language and thought I: the reasons for and implications of rejecting representationalism

One of the clearest and most eloquent critiques of representationalism, and statements of an anti-representationalist alternative, from recent years is Price's *Naturalism without Mirrors* (2011a). As such, his work is a useful starting point for reflections on the reasons for and implications of rejecting representationalism.

Price uses the metaphor or the 'matching game' to characterise an entrenched, purportedly naturalistic approach in analytical philosophy. Imagine a child's sticker book. At the start of the book we have pages of stickers with various recognizable motifs, which then have to be matched to and placed on somewhat less obvious line drawings on subsequent pages. By analogy, the relevant entrenched approach starts with a bunch of sentences commonly presumed true, on the one hand, and the real world, as portrayed by natural science, on the other, purporting to match up true sentences with real-world truthmakers. Sometimes this match-up is easy. Yet for sentences speaking of such matters as meaning, mind, modality, and mathematics, we seem to face a real challenge in locating what in the world-as-described-by-science could make them true. What Jackson (1998) lauds as Serious Metaphysics could be seen as a paradigm of this approach (cf. also Haukioja 2009 for a review of a recent 'state of the art' anthology in this approach).

According to Price, this purportedly naturalistic approach is hostage to the representationalist picture encapsulated in the sticker book metaphor. The approach faces the difficulty, moreover, that truths about representation itself fall among those that, by the approach's own lights, are hard to 'place' in the natural world. Indeed, Price argues, there are reasons to doubt that these representational relations will be countenanced, in the appropriate way, by science. A battery of interconnected arguments are advanced, but a recurrent theme is that insofar as, say, theories of reference must apply to themselves, there is no sense to be made of an empirical adjudication between non-equivalent

purportedly naturalistic theories of reference – each will be right by its own lights. Naturalism combined with representationalism is in effect self defeating.

If truth and reference cannot be invoked as stubstantive, explanatory notions, as representationalists contend, what are we to say of them? *Semantic minimalism* is (part of) the reply for most anti-representationalists, including Price (cf. also Horwich 2005, 2010) Minimalism admits the legitimacy of claims like "'snow' refers to snow" and "'snow is white' is true iff snow is white', but does not see these as enunciating genuine relations between words and the world, but rather reflecting certain language-internal, functional properties of the words 'refer' and 'true'. Yet how shall linguistic content be understood, if not by appeal to truth-conditions or reference? Price here invokes a generalised or global expressivism. Questions of meaning are to be answered by exploring why we use particular discourses in particular natural situations, given certain natural needs. Along with reference and truth, ontological commitment is thus also deflated, Price argues. Thinking that there is something weird about, say, moral values turns out to be a kind of use-mention fallacy. (We note *en passant* the connection here to traditional debates in metaethics.)

Insofar as Price's expressivism is global certain worries may seem to arise as to how one can make sense of the position without, in the last analysis, positing some kind of unknowable thing-in-itself, or else seeing it simply as a kind of game-playing exercise without any ontological commitments, even of a deflationary kind (cf. Knowles 2011). This raises the question whether anti-representationalism *has to* or *ought to* be wedded to global expressivism. Other anti-representationalist views might suggest not, e.g. Horwich's metaphysically realist meaning-as-use view, Williams' or Brandom's Sellarsian pragmatism, or Rorty's radical quietism (cf. references above, and Kraugerud & Ramberg 2010 on Rorty's quietism). A further figure of note in this debate is Simon Blackburn, who finds the whole opposition between 'coping' and 'copying' misconceived. He seeks to defend a common sense notion of representation consistently with adhering to semantic minimalism (cf. Blackburn 2006). McDowell (1994) may arguably also be read as an attempt to 'overcome' this opposition. Indeed, in his most recent work Price himself has introduced a distinction between *i-representation* and *e-representation* aimed at assuaging some of the perceived anti-realistic implications of global expressivism (cf. Price 2011b).

We will explore such questions as: Are the arguments against representationalism as convincing as Price and others present them? Is semantic minimalism in itself something that leads to anti-representationalism? Is anti-representationalism committed to global expressivism? Is the opposition between anti-representationalism and representationalism really so stark? Can one be an anti-representationalist without giving up on some kind of realism?

§3.2 Representationalism v. anti-representationalism about language and thought II: 'the meta-ethics of thought'.

The 'metaethics of thought' asks in what ways, if any, meaning or mental content may be 'fraught with ought', as Sellars (1956, 1962) famously argues they are. Are intentional states or utterances of such-and-such types essentially subject to norms? If so, what are these norms? And what would their existence mean for the proper conception of normativity and intentionality? For instance: Are beliefs by their very nature things that ought to be abandoned if false, or groundless, or contrary to the evidence – and what would that imply for the nature of beliefs, or of 'oughts'?

Anti-representationalists have traditionally been heavily influenced by the idea that intentionality has an essentially normative dimension. Thus the view of intentional states and utterances as moves in a 'space of reasons', subject to a 'score-keeping' of entitlements and commitments, is foundational to both Sellars and Brandom. Yet the link between a normativist conception of meaning/content and anti-representationalism is not univocal. One recently influential anti-

representationalist, Horwich (2005, 2010), is among the most robust contemporary defenders of the view that normativity has no essential place in an account of meaning and content, advancing a non-normativist use theory of meaning/content. However, in deflating the explanatory import of truth, Horwich has been criticised for failing to appreciate the normative significance of truth itself (cf. Wright 1992, and Price 1998 for an anti-representationalist response to Wright).

Further, even among anti-representationalists who see normativity as essential to meaning/content, the link between their anti-representationalism and meaning/content-normativism is not without tension. One source of this tension is the commitment, in many leading anti-representationslists, to a broadly anti-realist view of normativity. Thus Brandom (1994) supports a 'normative phenomenalism' that takes the existence of normative reasons to depend on their acknowledgement as such. Price (2011a) supports a non-cognitivist expressivism about normativity (as he does for all other discourse, see above); he also, like Brandom, holds that central intentional states and acts are inherently subject to norms (Price 1998). However, critics have suspected a destabilising tension between judgement-dependent or expressivist views of normativity, on the one hand, and an essentially normative character on the part of the judgements made or attitudes expressed, on the other. Thus Jackson (1999) argues non-cognitivism about becomes viciously circular if mental attitudes themselves are essentially subject to norms. Likewise, Hattiangadi (2003) and Glüer and Wikforss (2009) find an incoherence in the combination of Brandom's normative phenomenalism and the foundational role he assigns to normativity in his account of intentionality. These arguments raise intriguing questions for anti-representationalism that have yet to be sufficiently explored.

We will explore such questions as: Can – and should – anti-representationalists make room for norms of truth or objective correctness, and if so how? In general, is an essentially normative character of meaning or content better news for anti-representationalists than their opponents? Are Jackson, Hattiangadi, Glüer and Wikforss and others right to posit a tension between anti-realist view of normativity and content/meaning-normativism, pointing up a problem for leading anti-representationalists?

§3.3 Representationalism v. anti-representationalism in cognitive science

Cognitive science is the interdisciplinary scientific study of mind and mental processes. A foundational assumption in much fruitful cognitive scientific research, in such diverse areas as language (Chomsky 1986), vision (Marr 1983), memory (Baddeley 1986), learning (Gallistel 1990), and reasoning (Newell & Simon 1972), has been that cognition is *computational*, involving algorithmic operations over discrete symbolic tokens ('representational vehicles'). The approach has been become known as classical cognitive science (CCS). Furthermore, in the words of its most influential philosophical advocate, Fodor, there is 'no computation without representation'(1975: 34): conceiving of operations over tokens as computations presumes construing these tokens as laden with content – as having a semantics. Fodor argues the only view of their contentfulness that fits their role in fruitful cognitive scientific explanation is a representationalist view, on which content is individuated in referential terms, and constituted by nomic environment-brain relations.

This poses a *prima facie* challenge to anti-representationalists, particularly in view of the fact that most of its recent proponents take consistency with science to be a crucial constraint on credible philosophical views. A fairly concessive response to the challenge, exemplified by Horwich (2005), is to accept a classically computationalist view of cognition, but dispute that our conception of the content of the inner Language of Thought, deployed in this computation, need be representationalist. Instead, Horwich argues, his use theory of meaning can and should be extended from public language to the Language of Thought.

More radical responses to the Fodorian challenge have gained strength over the last three decades, however. Connectionists (Rumelhard *et al.* 1986, Churchland 1989) propose a non-classical view of the computation that constitute cognition. Even more radically, dynamic systems theorists (van Gelder 1998, Chemero 2009) deny that a fruitful cognitive science need conceive of cognition as computation at all, emphasizing how cognition unfolds in a deeply enactive way, the brain inextricably coupled to its somatic and physical environment. These theorists pick up on, and seek to re-invigorate, the earlier (non-computational) ecological approach to cognition, pioneered by Gibson (1966). Related streams of research are gaining currency under such headings as 'enactivist' or 'embodied' cognition. Notably, Hurley (1998) and Noë (2004, 2009) develop views of perception as arising not from symbol crunching but a dynamical interplay between sensory activation and motor behaviour; Gallagher (2005), drawing at once on neuroscientific studies and the phenomenological tradition, seeks to show how our embodiment limits and conditions the varieties of cognitive processes available to us. Many of these approaches bill themselves as 'anti-representationalist'.

However, beside the Fodorian challenge in its traditional form, a new, cognitive-science inspired challenge to anti-representationalism has recently emerged. In his recent, major study of the minimal preconditions for objective perception, Burge (2010) argues for the centrality of representational notions to any psychologically scientific understanding of perceiving and acting creatures. Burge relies less on the preconditions for computation here than on (i) what he regards as an entrenched scientific fact, viz. that sensory-perceptual capacities that achieve *perceptual constancy*, succeeding in presenting features of the environment as constant through variation in one's subjective perspective on them, constitute a foundational, unified, psychological kind, and (ii) that the nature of this kind is to be understood, in part, in terms of notion of norms of objective representational *correctness* and perceptual *reference*.

Burge's monograph also raises the more general issue of the proper understanding and significance of the concept of representation as employed in cognitive science and neuroscience. In the latter discipline there has been a good deal of work charting the role of the hippocampus in enabling navigational behaviour, leading to the idea of internally represented 'cognitive maps' (O'Keefe & Nadel 1978, Moser *et al.* 2008). A noteworthy claim of Burge's in relation to this is that the 'mere relevance of stored structures to metrical relations in physical space does not invest those structurs with representational content regarding space' (2010: 511). Though this issue may be terminological, it also potentially promises some illumination of the relationship between anti-represntationalism and the compatibility of this view with cognitive science.

We will explore such questions as: What are the strengths and weaknesses of the various' anti-representationalist' paradigms in cognitive science? How should we understand 'representation' in cognitive science and neuroscience? Would resolving these issues offer succour to anti-representationalism as a general philosophical position, or are they orthogonal to it?

§3.4 Representationalism v. anti-representationalism in perceptual experience and skilful coping

Perception falls among the capacities studied by cognitive science; indeed, it is widely thought to be an area where cognitive science has been notably successful (Palmer 1999). However, it deserves special consideration under our project, thanks to the importance of perceptual experience to philosophy of consciousness, to epistemology, and, not least, historically to the traditions of thought we are addressing.

Perception again can be seen to ground a challenge to anti-representationalism (as foreshadowed by the previous section). Perceptions are *meaningful impressions*, it may seem. On the one hand, they seem possessed of intentional content – to present things around us as being certain ways. One the other, perceptions appear to be something passively done to us by the world – something

we're 'saddled with', in McDowell's (1994) phrase – not something we do in it. The passive, non-reasoning character of perception makes it hard, at least at first blush, to see how to apply anti-representationalist's favoured explanatory notions of *inference*, *warranted move*, *expression*, *use*, and so on.

One influential anti-representationalist response to this difficulty deploys, in effect, a divide-and-conquer strategy, dividing perception into (intentional) *observational judgments*, on the one hand, and (non-intentional, non-epistemic) ways of being sensorily affected, on the other (Sellars 1956, 1968; Rorty 1979; Brandom 1994). This goes hand in hand with a rejection of *nonconceptual* intentional content as an instance of an alluring 'Myth of the Given' (cf. Nes 2008 for this issue).

A forceful objection to this Sellarsian view is that perception, unlike judgement, is 'cognitively impenetrable' (Fodor 1990), but should still, on epistemological or even purely phenomenological grounds, be considered intentional. Phenomenological arguments from transparency have been particularly influential over the last coupe of decades (e.g. Tye 2000). Very recently however, non-intentional adverbial views have been starting to stage a bit of a fight-back (Coates 2007; Breckenridge forthcoming).

Another, underexplored option for anti-representationalists would be to aim to appropriate a notion of nonconceptual, intentional content within their framework. Crudely, they might venture a form of 'use theory' of perceptual content, paralleling use theories at the levels of language and thought. Steps towards such a theory may indeed be found among such theorists as Grush (2007), whose view critically incorporates many of the ideas of perception as a deeply active, exploratory process, found in Hurley (1998) and Noë (2004, 2009). However, one challenge facing this approach emphasising deep links between vision and action, concerns its suitability for the content of *conscious* vision, i.e. for visual *experience*, as visual consciousness apparently have several surprising dissociations from the motor-guiding aspects of vision (Milner & Goodale 1995, Clark 2001).

'Active perception' theorists typically stress that what enables perception to be contenful, on their view, is not haphazard behaviour but *skilful* activity (Hurley 1998, Noe 2004). Now, for activity to be skilful, one might reasonably suppose, is for it to manifest *know-how* – practical knowledge of how to do things. This suggests an explanatory strategy, seemingly congenial to anti-representationalists, of accounting for the intentional content of perception in terms of a perhaps more basic practical competence. However as Stanley and Williamson (2001) argue, there are reasons to think know-how itself reduces to a species of propositional knowledge. If they are right, it is liable at least to complicate the appeal to skilful activity as a perhaps more basic element in an account of perceptual content. Stanley and Williamson's argument has generated an intense debate, drawing rejoinders in favour of a non-propositional view of knowledge-how from Noë (2005) and extensive replies in a new book from Stanley (2011).

The issues in this section have important connections with the role of indexicals in the characterisation of perceptual and agentive content, currently central to the CSMN's Linguistic Agency project (Cappelen & Dever, forthcoming), and will be pursed in close co-operation with the latter.

We will explore such questions as: How far do the phenomenological arguments for the intentionality of perception go? In particular, how successful are they in refuting an adverbialist view, in light of the recent defences of the latter? Could – and should – an anti-representationalist view of nonconceptual content be developed? How far should one follow Hurley or Noe in thinking of perception as essentially active – if very far, is that bad news for representationalists? What difference does the distinction between a propositionalist and a non-propositionalist view of knowledge-how do to the explanatory role the latter can play in anti-representationalist conceptions of intentionality?

§3.5 Cross-linkages

The debates outlined in §§3.1-4 above each form a focus point for the evolving dialectic between representationalism and anti-representationalism. However, the *inter-relationships* between these debates – and the possibly different notions of intentionality they involve – also raise crucial questions, that have yet to receive the attention they deserves. Tyler Burge's important monograph *Origins of Objectivity* (OUP 2010), discussed in §3.3 above, is a recent exception. Burge also shows how questions about perception (§3.3-4) link with those of the 'metaethics of thougth' (§3.2), arguing that norms applying already at the level of perception constitute an underappreciated, simple form of normativity, allowing for the attribution of correspondingly simple, yet still objective forms of intentionality.

While Burge's monograph is path-breaking, it offers only one particular conception of the cross-linkages there may be between these issues. The relationship between (anti-)representationalism about thought and language and (anti-)representationalism in cognitive science, including perception, is quite generally underexplored. Does anti-representationalism about thought and language commit one to rejecting classical cognitive science, or the idea that perception or consciousness is representational? Conversely, can empirical work confute or confirm broader philosophical claims (as Burge argues in relation to particular philosophical projects)? Within cognitive science itself there is much scope for exploring intentional notions, both in a representationalist and an anti-representation vein. To gauge the broader metaphysical and epistemological bearings of the opposition between representationalism and anti-representationalism one should not, then, look exclusively to language or reflective thought; one should also have their roles in cognitive science in view.

§4 Formal issues: Activities, funding, project group, publication, strategy, gender

§ 4.1 Activities and funding (see grant application for full details)
Applied for from NFR: 3 project group meetings, 3 workshops with stipends for travelling master students, 1 writing retreat for group plus international guest(s), 1 phd course with stipends for Nordic participants, 33% coordinator position, master scholarships. The exact topics of the worskhops and the phd course will be decided by the project group at their first meeting.
Contributed by managing institution (NTNU): 2-year post-doctoral position, 55% professorial position in total each year (Knowles 25%, Haukioja 15%, Molander 10%, Finke 5%).
Contributed by cooperating institutions (University of Oslo, University of Bergen, University of Stavanger): 20% position in total per year

§4.2 Project group
The project is conceived as a collaboration between researchers at three of the evaluated units: Philosophy at NTNU, Philosophy at University of Bergen (UiB) and Philosophy at University of Oslo (UiO). In addition we have brought in two researchers from the University of Stavanger (UiS). The project is led and managed by NTNU.

The researchers at NTNU are members of the recently established research group *Cognition, Concsiousness and Reality* (http://www.ntnu.no/filosofi/ccr). The UiO researchers are members of NFR Centre of Excellence: *Centre for the Study of Mind in Nature* (http://www.csmn.uio.no/). The UiB researchers have also worked together on various collaborative projects on perception and philosophical method. Also, researchers at both NTNU and UiO have been interacting, along with Nordic colleagues, within the Nordic Pragmatism Network, devoted to issues closely related to the project themes (http://www.nordprag.org/). CVs for all members of the group are included.

       Executive group (with affiliation and relevant interests)
• Jonathan Knowles (Professor NTNU, *research director*) Anti-representationalism and its implications for realism and naturalism, philosophy of cognitive science.

- Anders Nes (Post-doctoral fellow, UiO, *research coordinator*). Metaethics of thought, perception.
- Mette Hansen (Doctoral fellow, UiB). Perceptual content, inter-modal perception.
- Jussi Haukioja (Professor, NTNU). Theories of reference, metaethics of thought.
- Bjørn Ramberg (Professor, UiO/CSMN). Neo-pragmatism, Rorty

Other members (affiliation, interests)
- Herman Cappelen (Professor, UiO/CSMN). Indexicality in relation to action and perceptual content.
- Hedda Hassel Mørch (Doctoral fellow, UiO). Phenomenal consciousness and physicalism.
- Steffen Borge (Post-doctoral fellow, NTNU). Philosophy of language.
- Ståle Finke (Professor, NTNU). Phenomenology, enactivist and embodied views of intentionality.
- Bengt Molander (Professor, NTNU). Pragmatism, Wittgenstein, 'know-how'.
- Ronny S. Myhre (Doctoral fellow, NTNU). Consciousness and representation in cognitive science and neuroscience.
- Gunnar Karlsen (Assoc. Prof. UiB). Perception, Merleau-Ponty.
- Anita Leirfall (Assoc. Prof., UiB). Kant, philosophy of perception, non-conceptual content.
- Ståle Gundersen (Assoc. Prof., UiS). Phenomenal consciousness, physicalism, cognitive science
- Tarjei Mandt Larsen (Assoc. Prof., UiS). Phenomenology, phemonenal consciousness, perception.

§4.3 Publication

An important aim of the collaboration is to nurture high-quality research publications from the Norwgian participants. To futher this we will implement the following:
1) Members of the project group will be expected to present papers at at least two of the international workshops.
2) We will towards the end of the project period organise an intensive two-to-three day "writing retreat", where all project group members will be expected to attend, together with two international guests. At the retreat, each member will submit a near-final draft paper in advance, which will be read by two other project members and one of the guests, who will meet and discuss in small groups at the start of the retreat. The retreat will offer a chance to make final revisions and improvements to one's paper in a highly concentrated atmosphere.
3) Project members will be expected submit at least two journal-length papers, or the equivalent, during the project phase, where at least one of these submissions will be to a "level 2" journal/publisher, in terms of the Norwegian classification.

§4.4 Strategic considerations

The application is in full accord with the follow up plans submitted by the Philosophy Department at NTNU and the strategic goals of the Humanities faculty at NTNU, which together stress intra- and interinstitutional collaboration, national and international networks, interdisciplinarity, and efforts to improve publication. Many of the issues are of principle relevance to cognitive neuroscience, which has a strong position at NTNU (cf. Centre of Excellence/Kavli institute: Centre for Biology of Memory). Edvard Moser, director of this unit, will contribute to one of our workshops with a lecture on spatial representation in neuroscience.

§4.5 Gender

We aim to encourage greater participation of women in philosophy. There are three women in the project group. We will appoint (a) female professor(s) II as holder(s) of the PhD course. A search committee for this position has been already been established, and consultations with strong candidates begun. We will invite at least one female guest to each of the workshops. Master scholarships have had a positive effect on recruitment of women to masters studies.

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