# Being clear on content - Commentary on Hutto and Satne Final

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Abstract. In the target article Hutto and Satne propose a new approach to studying mental content. Although I believe there is much to commend in their proposal, I argue that it makes no space for a kind of content that is of central importance to cognitive science, and which need not be involved in beliefs and desires: what I call 'representational content'. Neglecting representational content leads to an undue limitation of the contribution that the neo-Cartesian approach can offer to the naturalising content project. I claim that neo-Cartesians can, on the one hand, help account for the nature of representational content and clarify what makes representational states contentful. On the other, besides explaining the natural origins of Urintentionality, neo-Cartesians should also take the role of accounting for the natural origins of contentful states that fall short of beliefs and desires. Finally, I argue that the only alternative for the authors is to embrace some form of non-representationalism, as Hutto elsewhere does. The success of the proposal thereby turns on the fate of the radical non-representationalist position that it accompanies.

**Keywords:** mental representation – mental content – naturalising intentionality – origins of content – enactivism

### 1 Introduction

In the target article, Hutto and Satne put forward an interesting proposal on how to change the direction of research on mental content. Very roughly, a state of a system has content if it has some sort of correctness conditions, which may be truth conditions, satisfaction conditions or some kind of accuracy condition (e.g., in the case of contents of singular terms). Mental content, despite being a central explanatory posit in the cognitive sciences and in the philosophy of mind, still lacks a fully satisfactory treatment whereby to establish its proper place in the natural order. The main contenders at providing such a treatment make use of fundamentally different strategies: some try to provide a reductive account of mental content, explaining content as being based on some natural relation; others, non-reductive in nature, attempt to explain mental content by either appealing to ascription and stances or to social practices. All, reductive and non-reductive strategies alike have, Hutto and

Satne point out, a host of loose ends, besides being vulnerable to crippling objections either because the reductions do not come through (in the case of the first strategy); or because they seem to fail in that they need to presuppose content so as to even get off the ground (in the case of the non-reductive strategies), and thus do not respect the naturalistic requirement.

The solution, the authors propose, is to change focus and replace the putatively failed attempt at providing a naturalistic reduction of content with an investigation of the natural origins of content. With such an account in hand, we should have all that is needed to explain the place of content in the natural world in a way that is neither mysterious nor anti-materialistic. What is more, this line of research finds a role for all three strategies mentioned above, thereby urging those that have been opponents up to now to join forces and contribute each a part of the whole account. I will follow Hutto and Satne (and Haugeland 1990) in calling the three strategies neo-Cartesianism (reductionist), neo-behaviourism (based on content ascriptions) and neo-pragmatism (based on social practices), though these labels should not be taken too seriously, as the authors themselves admit, and are moreover meant to cover only the main positions in the field¹.

I shall not here be directly concerned with their diagnosis of the failures of those three strategies in clarifying the notion of mental content, and of why they cannot work, as things stand. Rather, I shall focus on their positive proposal for a new framework in which to couch research on content.

The central piece of the general diagnosis, though, works also as the basic assumption on which Hutto and Satne ground the framework they propose. The "offending assumption", as they call it, is to equate intentionality with having semantic content. This assumption is said to be behind the failures of the three traditional strategies, and it is the rejection of this assumption that allows the authors' alternative proposal to take off<sup>2</sup>.

In what follows, I will examine this central assumption and, in particular, how to

<sup>1</sup> One position that has been gaining ground in recent years and which is not included among the main contenders is the 'phenomenal intentionality' view (see *e.g.* Horgan and Tienson 2002).

<sup>2</sup> Although only partially so. See below.

make sense of its rejection that Hutto and Satne advocate. Firstly, I believe, it is important to get clear on what we are talking about when we talk of intentionality, for things do not seem as transparent as we would like them to be in this domain. Hence, I will try to extract from the target article the notion of intentionality (mainly) at play in its arguments. I will then argue that the notion of content at work in the view proposed by Hutto and Satne is too tightly linked to the semantic properties of beliefs and desires, and that it is such a narrow notion that leads them to severely limit the contributions that the neo-Cartesian approach can offer to the naturalising content project. Indeed, neglecting an alternative, broader, notion of content puts, given its importance in the cognitive sciences, undesirable limits on the scope of the endeavour of explaining content naturalistically.

Moreover, as I will try to show, the proposed distinction between Ur-intentionality and intentionality is not fine-grained enough to cover the whole ground, as we need a middle ground notion of contentful state that falls short of beliefs and desires. Once again, I will claim that, as a consequence, the neo-Cartesian can do more than only explain the natural origins of Ur-intentionality: it can help explain the natural origins of non-conceptual as well as of some conceptual contentful states.

These considerations, though, take their force from an acceptance of mainstream, representational cognitive science. If we should reject the representationalist view, as Hutto elsewhere advocates (Hutto and Myin 2013a), and embrace the Radical Enactivism therein proposed, the worries I present below lose their force. This suggests that the framework proposed by Hutto and Satne requires not only that the "offending assumption" be rejected, but also that Radical Enactivism be embraced. The success of their proposal thereby turns on the fate of the radical non-representationalist position that it naturally accompanies.

With these anticipations on board, let us first tackle the distinction between different types of content mentioned above and see how it bears on the picture offered by the target article.

#### 2 Intentionality, Representation, and Content

In the philosophy of mind content can be understood in at least two different ways, even though these two different meanings tend to be equated or confused quite often. These two ways may be more or less related, depending on the overall theory of cognition in which they are embedded. The distinction to which I refer here is that between what we may call intentional content and representational content. The former notion is an element of theories of intentionality, while the latter is an element of theories of representation. I suggest that we follow those philosophers (Cummins 1996; Ramsey 2007; Colombo 2014) who stress the importance of keeping these two kinds of theory separated against the somewhat widespread trend of running them together. But what does the distinction actually consist in? Here is Colombo (2014, n. 6):

More accurately, the problem of intentionality asks how mental items such as thoughts, beliefs, and desires can be directed towards, or be about, other specific items. The problem of representation asks how certain kinds of items, viz. representations, can represent, can be directed towards, or be about, other items. The concepts of intentionality and representation are distinct, and in fact the notion of representation can be used as a means to address the problem of intentionality. Yet, the problem of representation and the problem of intentionality are often taken to be identical.<sup>3</sup>

To cite an example (Colombo mentions Jerry Fodor and Tim Crane), take Burge (2010). He defines the term "representation" as meaning "any sort of intentionality in perception, cognition, or language"<sup>4</sup>, and further on he claims that "even now, accounts of representation ('intentionality') swing from approaches that insist that representation is the special achievement of reflective human beings or language users to approaches that maintain that representation is as common as causally based

<sup>3</sup> Similarly, Ramsey (2007), p. 18: "there seems to be a tacit assumption held by many philosophers that a theory of intentionality *just is* a theory of representation".

<sup>4</sup> Burge (2010), p. 34.

correlation that has a function"5.

I take this last quote from Burge to be particularly illuminating of the potential confusion. For theories that try to explain intentionality by means of social and linguistic practices and theories that explain intentionality by means of correlation need not be targeting the same *explanandum*. From one side, we may want to enquire on how intentional states such as beliefs and desires get their contents; from the other, we may want to understand how mental representations (short of beliefs and desires) get their contents. While it is plausible that intentional contents in some way or other depend on representational contents (though it is possible that they do not inherit the contents of the representation to which they are related<sup>6</sup>), representational contents need not be related in any direct way to beliefs and desires. That is to say, there are representational states that are not related to full-fledged beliefs and desires, as I will illustrate below. If we understand intentionality to be "aboutness" taken broadly, then mental (and non-mental) representations short of beliefs and desires feature intentionality as much as beliefs and desires. Moreover, in this looser sense, if we endorse Hutto and Satne points about Ur-intentionality, as I think we should, there is intentionality that is not contentful and thus not representational.

In summary, we have three different kinds of states that feature intentionality in the broader sense (aboutness): states with intentional content, such as beliefs and desires; states with representational content short of beliefs and desires; and non-contentful states that have the directedness of Ur-intentionality. However, occasionally the term 'intentionality' is used more restrictedly to describe a property only of mental states such as beliefs and desires.

For instance, neo-pragmatist accounts seem to be working with this narrower notion of intentionality as their *explanandum*. Indeed, their view is that content is to be understood in terms of social practices: it is only by being part of these practices that intentional states become contentful. Such practices may consist, for example, in conforming to the ways of living of a society (Haugeland 1990), or in reason-giving to

<sup>5</sup> Burge (2010), p. 432.

<sup>6</sup> Cummins (1996), p. 16.

justify actions (Cash 2009).

If the foregoing considerations are on the right track, we should expect neopragmatists to contribute very little to clarify the notion of content at work in most cognitive science, which is not intentional in the narrow sense, but representational nonetheless. For most of psychology and cognitive neuroscience are concerned with a type of content that lies at the subpersonal level and does not involve full-fledged intentional states such as beliefs and desires. Most of cognitive science has as its objective that of explaining cognitive processes involved in abilities such as linguistic processing, face recognition, visual perception, and so on.

... cognitive processes themselves are typically characterised as an inputoutput conversion couched in representational terms. [...] The challenge for
most cognitive theories [of linguistic processing] is ... [to explain] how an
acoustic input that represents a certain public-language sentence winds up
generating a representation of, say, a parse-tree for that sentence. A theory
about how the visual system extracts shape from shading is actually a
theory about how we convert representations of shading into
representations of shape. The same general point holds for most of the
explananda of cognitive science. Indeed, this is one of the legitimate senses
in which cognitive systems can be viewed as doing something called
"information processing". While automobile engines transform fuel and
oxygen into a spinning drive-shaft, and coffee-makers convert ground coffee
to liquid coffee, cognitive systems transform representational states into
different representational states. (Ramsey, 2007, p. 69)

It seems plausible that the neo-pragmatist approach is limited to the intentionality of beliefs and desires. Or, at any rate, there seems to be no clear way whereby it could account for, *e.g.*, the contents of an edge detector in visual area V1 or of spatial maps in rats' hippocampus, or of the intermediate representational states involved in linguistic and visual processing, and so on, without flirting dangerously with mere ascriptionism or eliminativism<sup>7</sup>. And even if satisfying non-eliminativist

<sup>7</sup> See Cash (2009), in which this attempt is made but, I believe, in a way that does not do away with eliminativist worries. An ascriptionist strategy is hypothesised also by Fenici (2013). Of course, if one embraces non-representationalism about those cognitive mechanisms, this may not seem to be a problem. Nevertheless, non-representationalists must provide accounts of how complex cognitive

accounts of these kinds of representational contents should be provided by the neopragmatist in the future, it is mysterious how such accounts could be provided for animals not involved in social practices. Hence, even if we, for the sake of argument, concede much space to the neo-pragmatist strategy, we will still leave out a considerable range of cognitive phenomena that call for explanation in representational terms: those involving asocial animals. My point here is not to demarcate precise boundaries, so it suffices to me to point out that the neo-pragmatist strategy leaves out at least some cognitive phenomena that are contentful and which, though not intentional in the restricted sense, are nonetheless representational.

These considerations do not of course threaten the neo-pragmatist account of intentional content, but only of representational content in general, as we are understanding these terms herein.

Hutto and Satne might be working with this more restricted notion of intentionality in mind<sup>8</sup>. And this not only because of the space they give to the treatment of the neo-pragmatist strategy, which focuses on beliefs and desires and reason-giving for actions, but also due to the formulation of the main question behind the philosophical enterprise of naturalising content that they accept. As a description of that enterprise, they quote Rosenberg (2013, p. 3), who claims that "the basic problem that intentionality raises for naturalism ... [is] how can a clump of matter, for example, the brain or some proper part of it, have *propositional content*<sup>9</sup>, be about some other thing in the universe". Unless we take this claim to be referring to the narrower notion of intentionality mentioned above, the claim is too strong<sup>10</sup>. For there is no need that representational content be propositional. In most cases, on the contrary, it will be non-conceptual and non-propositional<sup>11</sup>. It is, for instance, hard to

abilities can be explained with no recourse to representations. See the section 'Concluding Remarks' below.

<sup>8</sup> Though they probably are not, and would rather endorse non-representationalism, thus doing away with what I have been calling here representational content. See below.

<sup>9</sup> Emphasis added.

<sup>10</sup> Alternatively, if the project of naturalising intentionality is thus formulated and taken to cover all forms of intentionality, it opens itself to the charge of overintellectualism (Hutto and Myin, 2013a, chap. 5).

<sup>11</sup> Burge (2010, pp. 36, 104), for instance, argues that perceptual content is not propositional even though we explain it propositionally.

see without considerable stretch how a spatial map in rat hippocampus can be said to have propositional content<sup>12</sup>. However, it can be said, on most accounts of representation at least, that it represents the spatial layout of a certain region.

What I would like here to put forward is that the neo-Cartesian attempts at reducing content, if targeted at representational content and not at the contents of beliefs and desires, contra Fodor (1975), can actually succeed. Perhaps Hutto and Satne are correct in their diagnosis that neo-Cartesians are trying to account for content at the wrong level. Nevertheless, that does not mean that they should be relegated solely to explaining non-contentful mechanisms and states, or what the authors call Ur-intentionality. There is a whole domain of explanation between that of intentional states understood as beliefs and desires and non-contentful states, namely that of representational (vs. intentional) content. Neo-Cartesianism can thus have more to do than accounting for the natural origins of non-content-involving intentionality, as Hutto and Satne would want it.

Moreover, it need not be committed to teleosemantics, the main target of criticisms against the neo-Cartesian strategy in the target article. Neo-Cartesians have other cards in their hands that may not be liable to the crippling objections against teleological theories of content, at least when left unsupplemented. When representational content in the aforementioned sense comes to be dissociated from the contents of intentional states, many requirements that intentional content must satisfy may not be present. For instance, representational content may be non-unique<sup>13</sup>, or it may be fixed by the cognitive activity in question as well as by the task domain in which the organism is embedded<sup>14</sup>. Of course, whether anything on these lines can eventually work, thus vindicating, at least partly, neo-Cartesians in their attempts to reduce content, is to be seen. At any rate, given that the stringent requirements on a theory of intentional content may not apply, the endeavour does not seem hopeless.

Neo-Cartesianism seems appropriate at least for representational content that

<sup>12</sup> See Rescorla (2009).

<sup>13</sup> As in Cummins (1996).

<sup>14</sup> See Ramsey (2007).

falls short of the contents of full-fledged beliefs and desires. Here, I think, there opens a problem for the framework offered by Hutto and Satne. For, on their picture, there appears to be no space for this type of content. Indeed, either we make the neopragmatists offer an account of representational content thus understood, which I take cannot be easily provided given the commitments of that position<sup>15</sup>; or we have to completely do away with the notion of representational content<sup>16</sup>, given that, according to the authors, neo-Cartesianism is apt to explain only the origins of non-content-involving Ur-intentionality.

It may be that the framework proposed by Hutto and Satne is not meant to target representational content thus understood. Perhaps when they talk of *semantic* content they intend it to rule out the sort of content I am here considering. However, this is unlikely, for Hutto and Myin (2013a, p. 67) contrast semantic content, which has truth conditions, with mere informational content based on covariance, which has not. At any rate, it looks like the framework outlined by the authors leaves out a rather important kind of content, one that informs much research in the cognitive sciences, and which may play a significant role in the quest of finding an appropriate place for the contents of full-fledged intentional states such as beliefs and desires in the natural order<sup>17</sup>.

# 3 Ur-intentionality, the origins of content and neo-Cartesianism

The notion of Ur-intentionality plays an important role in the framework outlined by Hutto and Satne. The idea is that we ought to distinguish "primitive, contentless from content-based forms of intentionality". Ur-intentionality would thus be some sort

<sup>15</sup> And neither can the ascriptionism of neo-behaviourists, at least if we want to keep to a realist understanding of representation.

<sup>16</sup> That is the line followed by Hutto and Myin (2013a).

<sup>17</sup> Even though some talk of representation in the cognitive sciences may be misleading, as Ramsey (2007) argues at length. But see Shagrir (2012) for a reply that considerably downsizes Ramsey's point. Burge (2010, chap. 8) also argues against what he calls "deflationary" theories of representation, while Hutto and Myin (2013a, pp. 120ff.) adopt a thoroughly non-representational view and contend that the cognitive sciences do not need to posit representations in most cases. See below.

of directedness, or targeting<sup>18</sup>, that is not in itself contentful, and thus neither representational nor intentional in the foregoing sense. Ur-intentionality, as such, is to be found rather widely in the phylogenetic tree, being a feature of any system that sports sensitivity to certain states of the world. According to Hutto and Satne, it is on this level that neo-Cartesians, in their teleological flavour, should focus. That is to say, neo-Cartesians should, by means of the theory of natural selection, explain how mechanisms for responding to specific features of the environment, such as sensory and motor systems, have evolved. Importantly, these systems do not as yet involve representational content or intentional content.

I think that here the authors touch on an important point about representation in general. For it has been common in the literature on representation to regard primitive kinds of sensitivity to the environment as contentful in light of theories that have "under-reduced" representation, that is to say, that have defined representation in a way that is excessively weak<sup>19</sup>. As a consequence, neo-Cartesians have found themselves debating what the representational content of magnetosomes in magnectotatic bacteria should be. I agree with the authors (and with Ramsey and Burge) that this kind of strategy is misguided. Talk of content, in these cases, does not grab a hold and is explanatorily unhelpful. Magnetotactic bacteria do not represent anything but, rather, have evolved to respond in a certain way to certain environmental stimuli courtesy of the sensitiveness of their magnetosomes. In this case, there is what Hutto and Satne call Ur-intentionality, but there is no such a thing as representational or intentional content. Magnetosomes have allowed bacteria to move away from toxic surroundings towards more life-supporting ones by being sensitive to the planet's magnetic field (because there is often a correlation between the two). And this is why they have been selected for: responding in certain ways to magnetic fields. But if there is no question of veridicality or correctness, there is no need for talk about content, as Hutto and Satne point out<sup>20</sup>.

<sup>18</sup> See n. 7 in the target article.

<sup>19</sup> See Ramsey (2007), chap. 1.

<sup>20</sup> See also Cummins (1996), p. 45 and Burge (2010), pp. 300ff. and passim.

I believe that what I call the 'Deflationary Tradition' uses the term 'representation' so liberally as to debase it. [...] The term 'representation' that they invoke has no distinctive philosophical, scientific, or explanatory interest. The term misleads, by drawing interest that accrues from interest in distinctively psychological phenomena, whereas the term is applied to numerous phenomena that are not, even remotely, distinctively psychological. From an explanatory point of view, the term could be dropped in favour of other notions, notions of sensitivity or discrimination, or co-variation, or causal co-variation, or structurally isomorphic causal co-variation, or information-carrying—together with the notion of biological function. (Burge 2010, p. 294)

While I endorse Burge's suggestion not to under-reduce representation and representational content in a way that makes the notions fail to be psychologically distinctive, I do not believe that this should bring to a rejection of attempts to naturalise content. I agree with Burge that the notions of representation and content play important explanatory roles in the cognitive sciences and as such do not require metaphysical vindication or rescue, but I do not think that "naturalising projects" lose their bite as a result. Those projects may rather help explicate what representation is, which proves even more necessary given the lack of agreement on how to employ talk of representation in the cognitive sciences and the risk that some explanations couched in representational terms may need no appeal to representations to be successful. It is thus at least doubtful, I believe, that representation should be regarded as a scientific primitive, as Burge (2010, p. 298) holds. Moreover, as Hutto and Myin (2013a, pp. 116-7) point out, taking representation to be a primitive does nothing to dispel the conceptual and empirical problems that the notion involves.

In any case, I believe that the distinction between contentful and non-contentful states by Hutto and Satne, Burge and Ramsey, though drawn in different ways by the different authors, is a precious one. It keeps us from the temptation of explaining in representational terms that which should be explained with no such terms<sup>21</sup>.

<sup>21</sup> And if I understand the authors correctly, determining the boundaries of this distinction should be the privilege of neo-behaviourists. It is not clear to me, though, that the proposed distinction between intentional agents and intentional patients succeeds in advancing matters. In particular, it seems to me that intentional patients, such as animals and infants, end up having contentful states in

Moreover, as Hutto and Satne rightly point out, the explanatory task does not stop with accounting for how sensorimotor mechanisms respond appropriately to environmental stimuli. The shift of perspective they propose, from trying to reduce content to trying to explain its natural origins, is, I think, a very welcome one. Though as I argued in the previous section I do not think that we should abandon the project of naturalising content, I believe that the question about the natural origins is a interesting one with which theorists should engage. In some cases at least, such as the ones in which only Ur-intentionality is involved, the question about the natural origins of the relevant sensitiveness should be the only one of real interest.

However, I want to advance that, in a way analogous to the considerations in the previous section, the distinction between intentionality and Ur-intentionality that Hutto and Satne draw is not fine-grained enough. For recall that they rely mainly on the neo-pragmatist strategy in order to account for content-involving intentionality. By doing so, they must commit themselves to the implausible view that non-human animals, or at least asocial non-human animals, as well as humans socially isolated from birth and infants, do not feature contentful states, but only forms of Ur-intentionality. While I agree that it is possible that they may not feature intentional content in the sense of entertaining beliefs and desires, the notion of Ur-intentionality fails to capture the representational abilities of such living beings. One of the most important shortcomings of the neo-pragmatist strategy is still to be found in the framework proposed by Hutto and Satne. In other words, there is a lot in the 'content spectrum' between the non-contentful "response tendencies" typical of Ur-intentionality, and beliefs and desires possibly grounded on social practices typical of intentionality (narrowly understood).

Perceptual states, for instance, are plausible candidates for contentful mental states which are not dependent on social practices for their contents and that thus should inhabit the middle ground<sup>22</sup>. There is every reason to believe that many

<sup>&#</sup>x27;merely' ascriptionist fashion (see Shea 2013, pp. 498-9).

<sup>22</sup> Hutto and Myin (2013a, chap. 6) defend the view that perception is non-representational. How perceptual abilities, as well as the aspectual nature of perception, could be accounted for without having recourse to representation is though not clear. See Matthen (2014).

animals as well as isolated humans entertain perceptual states. While these states and their contents cannot be explained by means of social practices, given that there are none involved in these cases, they cannot be treated as cases of Ur-intentionality, for they are (plausibly) contentful. Yet, the natural origins of these kinds of contentful states can be explained by natural selection as much as the non-content-involving states typical of Ur-intentionality.

There is an evolutionary story about how perceptual systems came to be formed and how they exploited constancies in sensory input to produce representations of entities and properties in the environment. Natural selection can provide an account of the origins of content as much as of the origins of environmental sensitivity. For natural selection can explain how organisms became capable of informing their behaviour by means of responding to things in their environment in a way that transcends the stimuli in their sensory organs and places those things in the external world as causes of those stimuli. In other words, contrary to simple environmental sensitivity, which is only concerned with what happens at the sensory surfaces of the organism, perception is already more than mere responsiveness inasmuch as it is about things in the world and, as such, can be correct or incorrect (Burge 2010)<sup>23</sup>.

Similar considerations can be brought to bear for what regards cognitive maps that allow organisms such as bees and rats to navigate their environments. While these cognitive maps do not feature intentional content, they have correctness conditions and thus representational content. Whether and to what extent non-human animals have cognitive maps that represent spatial properties of their environments is still a matter of some controversy<sup>24</sup>. At any rate, cognitive maps in non-human animals, if they exist, are another example of contentful mental state that is not dependent on social practices.

Thus, insofar as we are concerned with the natural origins question, I suggest that neo-Cartesians can and should do more than explain Ur-intentionality. Their contribution can go at least to the level of representational contents that fall short of

<sup>23</sup> Hutto and Myin (*ibid*.) reject Burge's claim that perceiving constancies is sufficient for warranting talk of representational content.

<sup>24</sup> See Burge (2010), pp. 509ff., and Rescorla (2009), especially section 3.

informing full-fledged beliefs and desires.

As another example, take work in developmental psychology. An influential theory in that field of studies, dubbed "Core Cognition", claims that humans come equipped with innate (non-learned) representations and representational abilities which form the core cognition systems<sup>25</sup>. Core cognition systems are generally believed to be dedicated at least to forming conceptual representations of objects, numerosity, and agency. These innate representations cannot clearly be explained by social practices, being innate and present in infants as well as non-verbal animals, but looking for an evolutionary story about how these core cognition modules and basic representations came to be incorporated into the innate tools of animal and human cognitive systems is a quest worth pursuing. Indeed, according to Carey (2009), long evolutionary history is one of the marks of core cognition.

Note, furthermore, that the core cognition thesis, if correct, puts further strain on the division of labour between the three strategies proposed by Hutto and Satne. For here we are not speaking any longer of perceptual representations or cognitive maps that are arguably neither conceptual nor propositional, but, rather, we would be tackling representations with conceptual content, both in humans and non-verbal animals. And it is mysterious how neo-pragmatism, the strategy responsible for explaining the actually contentful states in the picture offered by the target article, can provide an account of how these states come to be contentful at all that does not risk to be merely ascriptionist, making content exist only in the eye of the beholder. For here, *prima facie*, no social practices are involved, no reason-giving for actions, no pressures for conformism. Nonetheless, keeping in place the *caveat* that there is no certainty about how correct the core cognition thesis actually is (though a rather impressive amount of evidence in its favour has been amassed<sup>26</sup>), core cognition representations seem to be contentful in a way not dissimilar to the way beliefs and desires are contentful: they both are conceptual representations.

Once again, these considerations do not directly undermine the picture according

<sup>25</sup> See, for instance, Carey (2009).

<sup>26</sup> See ibid.

to which it is social practices that determine the contents of beliefs and desires. What they suggest, instead, is that the role to be played by neo-Cartesians in the game of explaining the natural origins of content is more encompassing than Hutto and Satne seem to hold. There are kinds of content, and even conceptual content, that should better be explained by neo-Cartesians, these kinds being outside the explanatory scope of what the neo-pragmatist strategy can achieve. And this is moreover desirable, for in such a way we can avoid the implausible conclusion that non-human animals, infants and isolated humans do not entertain contentful states, that they are, as it were, condemned to Ur-intentionality.

# 4 Concluding Remarks

I think that Hutto and Satne put forward an interesting proposal for how to make things move forward in the perhaps stagnant enterprise of naturalising content. The shift in focus that they suggest is welcome and points towards problems that do not seem completely out of reach given the current state of research in the cognitive sciences. I believe that their proposal should be put in connexion with another rather recent line of research. Indeed, as I have hinted at above, fresh efforts have been made in the last few years to move the field towards a better clarification of what the related notions of representation, content and intentionality should denote and what work they ought to do in theories of cognition.

What I want here to suggest is that, in the light of these efforts, the framework proposed by Hutto and Satne should be somewhat modified. The notions of intentionality and Ur-intentionality seem to be insufficient to cover the whole ground. We need something more: an intermediate notion of representational content. As a consequence, I propose, the neo-Cartesian strategy has more work to do if the Intentionality All-Star team is to have the upper hand in the naturalising contest. On the one hand, it can help account for the nature of representational content and clarify what makes representational states contentful. On the other, besides explaining the

natural origins of Ur-intentionality, neo-Cartesians should (at least) also take the role of accounting for the natural origins of contentful states that fall short from the complexities of beliefs and desires.

But, it may be objected, the foregoing considerations are clearly wedded to the mainstream paradigm in the cognitive sciences according to which cognitive phenomena largely involve representations. It is when put against the background of mainstream representational cognitive science that my suggestions gain bite and justification.

In a recent book, Hutto and Myin (2013a) propose that we should reject the idea that much of cognition depends on contentful states. These authors advocate what they call Radical Enactivism, according to which "our most elementary ways of engaging with the world and others – including our basic forms of perception and perceptual experience – are mindful in the sense of being phenomenally charged and intentionally directed, despite being non-representational and content-free"<sup>27</sup>. This approach sets forth the idea that contentful states come to be only when "associated with linguistic symbols and forms of cognition that feature in and are logically and developmentally dependent upon shared, scaffolded practices"<sup>28</sup>.

If we accept this picture, the points I raised above vanish. If much of cognition, including perception, is non-representational, then there is no need, as I urged above, to complement the framework proposed by Hutto and Satne by adding a middle ground between beliefs and desires, and Ur-intentionality. However, that means that for that framework to work we must not only reject the "offending assumption" that all intentionality involves content. In addition, we must also buy into the much stronger assumption according to which most of mentality is contentless. This is, I take, the only way to do away with the gap in the proposed strategy for the Intentionality Team that I have stressed above.

But why should we accept Radical Enactivism? The project in Hutto and Myin (2013a) is mainly negative. The bulk of the book is dedicated to attacking existing theories of content, especially those that base themselves on informational content

<sup>27</sup> Hutto and Myin (2013a), p. 13.

<sup>28</sup> Ibid., pp. 151-2.

understood as covariance. While the authors point out problems with current accounts, they do not show that naturalising intentionality is impossible, or that doing so in informational terms is impossible, but, at most, that there is no satisfying account on offer (yet)<sup>29</sup>.

I will not here dwell on whether the Radical Enactivist position is tenable. It must be stressed, though, that in Hutto and Myin (2013a) little is said about how such a view can produce satisfying explanations of phenomena that go beyond low-level direct coping with the environment, as for instance perception, memory, recognition, planning, mental imagery, learning. If Radical Enactivism is to become a serious contender in the explaining cognition game, it must provide accounts of such phenomena that rival in cogency their representationalist counterparts. And note that the Radical Enactivist cannot claim that these cognitive abilities are indeed contentful, for it would mean, in their picture, that they involve social practices, thus denying that non-human animals can be endowed with them. To be clear, I am not claiming that such non-representational accounts cannot in principle be provided, but only that they have not been, as things stand. Or at least, not with the same level of detail and with equivalent explanatory purchase as those offered by representational cognitive science.

In a few words, if what Hutto and Satne propose as the best path to explaining the place of intentionality in the natural order is to be left unchanged, accepting it requires accepting the radical, and as of now, not sufficiently detailed picture of Hutto and Myin (2013a). That is to say, the strategy they propose for the team, if not complemented in the ways suggested above, requires that the whole team endorse Radical Enactivism. Whether the Intentionality Team would have anything to gain from defending the colours of Radical Enactivism is, though, yet to be shown.

#### **Acknowledgements**

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<sup>29</sup> For criticism of the attacks launched in Hutto and Myin (2013a) against existing theories of content, see the reviews by Matthen (2014) and Campbell (2014).

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