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Glock, Hans Johann

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Hans-Johann Glock

# Propositional Attitudes, Intentional Contents and Other Representationalist Myths

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Hans-Johann Glock: University of Zurich, glock@philos.uzh.ch

## 1 What is representationalism?

What do I mean by representationalism? The label is currently used for a confusing variety of distinct positions. Let me distinguish my target from two of these. What I do not mean is the idea that philosophy can investigate the capacity of mind and/or language to acquire knowledge about a mind-independent reality. Representationalism in this sense has been vociferously opposed by Rorty (1979), to the common acclaim of literary critics, social theorists and so-called continental philosophers, and to the widespread dismay of many analytic philosophers. Nor do I mean the view that a systematic theory of meaning for a specific (natural) language specifies the truth-conditions of sentences of that language. Representationalism in this sense contrasts, for instance, with the kind of inferentialist semantics propounded by Brandom (1994).

My target is neither as specific as the second position nor quite as general and diffuse as the first. For my purposes, representationalism has been summarized neatly by Fodor: ‘the mind is pre-eminently the locus of mental representation and mental causation’ (2003: 8). It is a ‘representational system’, and thinking is ‘representing things in the world’ (Crane 2004). Representationalism thus understood is part of the mainstream of modern philosophy. In the wake of Descartes, ‘mind’, its equivalents and cognates have been treated as the label of a special kind of thing or realm—whether it be the mind of Cartesian dualists or the brain of materialist monists. Prominent among the denizens inhabiting this realm are *cogitationes*, ideas, *Vorstellungen*, etc., which both represent and are caused by phenomena—objects, facts, etc.—in the material world.

Especially in the empiricist ‘way of ideas’, these mental proxies tended to be conceived of as images of the kind that occur to us when we imagine a visible phenomenon. But there is also a version of representationalism that is lingualist rather than imagist and conceives of them as symbolic in nature, as in William of Occam. A transmuted contemporary version of the imagist brand is the idea of ‘nonconceptual content’ (e.g. Cussins 1992; Peacocke 1992; Bermúdez 2003).

cp. Glock 2013a: 222). It holds that at least some kinds of representations— notably those involved in animal thinking and pre-reflective human perception—are ‘proto-propositional’ and consist of nonconceptual components.

I shall concentrate the mainstream of representationalism within analytic philosophy, which is of the lingualist type. According to this orthodoxy, intentional verbs like ‘think’, ‘believe’, ‘perceive’, ‘desire’, ‘intend’ etc. signify *propositional attitudes*, i.e. relations between a subject and a (propositional) ‘content’ or thought, a complex entity which has concepts as components.<sup>1</sup> As will become abundantly clear in the sequel, I regard this orthodoxy as mistaken and the terminology as misleading. Therefore I shall refer to intentional states as *thought* and employ ‘thinking’ or ‘having thoughts’ in the sense of being in an intentional state. This terminology is in line with Hume (1740: 1.3.16) and Davidson (1984: 156; 2001:98-100).

The most prominent contemporary manifestation of representationalism, and one of the clearest, is Fodor’s representational theory of mind (RTM). Intentional states like belief and desire ‘are constituted by relations to mental representations’, namely ‘thoughts’ (Fodor 2003: 141, 10). Concepts are ‘the constituents of thoughts’ (Fodor 1998: 25). Thoughts and concepts constitute types of ‘mental representation’ and a ‘kind of mental particular’. As mental *particulars*, they are ‘objects in the mind’ or ‘in the head’ of individuals; they are ‘concrete’ rather than abstract; and they have causes and effects in the physical world (Fodor 1998: 3, 7-8, 22; 2003: 13+n). As mental *representations*, they have ‘representational content’. They contribute to the content of our intentional states, to what we believe, desire etc. They do so by determining the conditions under which our beliefs are true and our desires satisfied.

Furthermore, according to Fodor’s ‘language of thought hypothesis’ mental representations are symbolic rather than iconic. *External* sentences are meaningful because they are correlated with *internal* signs, sentence-like representations in the brain the tokening of which constitutes our thinking (believing, desiring, etc.). The ultimate carriers of intentional content are sentences in ‘Mentalese’, physical tokens of computational types. When we engage in conceptual thought, Mother Nature inscribes signs of a computer programme into our brains. Concepts, according to Fodor, are nothing other than the token-words of the language of thought, and thoughts are its token-sentences.

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<sup>1</sup> See, e.g., Frege 1918; Russell 1940; Moore 1962: ch. 3; Price 1969; Burge 2005. I shall not dwell on the major schism within this branch of representationalism, namely between those who regard representations as Fregean senses and those who regard them as structured propositions à la Russell. But it will make a brief appearance in section 5.

The current representationalist orthodoxy involves three distinct elements: a relational model: an intentional state is a relation between a subject and a content, something the intentional state is directed at; propositionalism: these contents are propositions; a building-block model: propositions are (abstract) wholes which have (abstract) parts—concepts.<sup>2</sup>

I shall argue against all three components. First, many intentional constructions do not take the form ‘V-ing that *p*’, and cannot be reduced to anything ‘that-ish’. Secondly, even that-ish intentional states like believing or desiring that *p* are not uniformly attitudes towards propositions. Thirdly, what we think—the ‘contents’ of our thinking—are not complex entities with concepts as components. As a result, thinking should not even be regarded as a *bona fide* relation or attitude.<sup>3</sup>

## 2 Against universal propositionalism

Some contemporaries would have us believe that the philosophy of mind should take its lead exclusively from the cognitive sciences. But our pre-theoretical mental concepts determine the topic both of the cognitive sciences and the philosophy of mind, and they are embodied in the way we use mental terms, or, more generally, in our mental discourse (see Glock 2013b). For this reason, I shall approach the question of whether propositionalism holds for *all*

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<sup>2</sup> Thus for Burge representations are tokened, structured, instances of inner symbols, expressing *representational contents* (Burge 2005: 67). Perception is representational in that it purports to be about something and to represent it as being a certain way (Burge 2005: 3).

<sup>3</sup> Non representationalist approaches in philosophy include eliminativism, behaviourism, and instrumentalism. Non-representationalist approaches in cognitive science include behaviour-based robotics and Dynamic System Theory. Ryder 2009 surveys these positions from a representationalist point of view. There is also a distinguished group of Neo-Aristotelians and Wittgensteinians that repudiates representationalism, including Brandom, Hacker, Kenny and McDowell. Several of my animadversions to representationalism are indebted to Kenny and Hacker in particular. But others are inspired by neo-Fregean and instrumentalist ideas, notably the repetition problem diagnosed by Künne and the measurement analogy deriving from Davidson (see scts. 4-5 below). Moreover, none of the declared critics of representationalism distinguish its three components; indeed, some of them—including Kenny and McDowell—subscribe to propositionalism.

types of intentional states (all forms of thinking) through looking at our employment of intentional verbs, verbs ascribing intentional states.

Intentional verbs occur mainly in three sentential forms:

- |     |   |                                       |                |
|-----|---|---------------------------------------|----------------|
| I   | A | Vs (thinks/believes/expects, etc.)    | that <i>p</i>  |
| II  | A | Vs (intends/plans/means, etc.)        | to $\emptyset$ |
| III | A | Vs (loves/desires/thinks about, etc.) | <i>X</i>       |

According to the aforementioned orthodoxy, the verbs that can replace ‘*V*’ denote different types of *intentional attitudes*, ‘*A*’ the *subject* of these attitudes, and the substitution instances of ‘that *p*’, ‘to  $\emptyset$ ’ or ‘*X*’ their *contents*. All three forms display a hallmark of intentionality, namely that nothing in reality needs to correspond to the (grammatical) direct object: one can believe something which is not the case, intend to do something which never happens, and love someone who does not exist. *Prima facie*, (I) expresses a relation towards a proposition or—sticking to the lingo of ‘attitude’—*propositional attitude*, (II) a relation towards an action or *action-oriented attitude*, (III) a relation to an object or *object-oriented attitude*. Nonetheless it is customary to subsume all forms of intentionality under Russell’s (1912) label ‘propositional attitude’. This is no coincidence. There is a pervasive tendency to regard (I) as basic and to disregard other forms of intentionality.

In addition, one finds more explicit manifestations of what one might call *propositionalism* about intentional states. Several authors have maintained that statements like

- (1) A intends to climb a tree
- (2) A admires Angela Merkel
- (3) A sees the Matterhorn
- (4) A craves M&Ms

can be analysed into statements of the form

- (I) A Vs that *p*.

Yet these reductive projects are unprepossessing.

McDowell’s (1996) *may* be right to reject ‘non-conceptual content’, if he means to insist that every object we can identify perceptually can somehow be described conceptually, perhaps with the additional aid of demonstratives. It does not follow, however, that there is a list of *propositions* which captures precisely and completely what A perceives when she admires the Matterhorn—the content of A’s visual field.

Tugendhat (1976: ch. 6) contends that even those intentional states which are ostensibly directed towards objects, for example loving, pitying or admiring someone, imply propositional attitudes, attitudes the expression of which involves a *that*-clause. Although Dorothea Brooke does not exist, I can admire her only if I believe that she exists. I beg to differ. There are many literary characters that I admire, even though I am fully cognisant of their fictional status. Furthermore, even if action- and object-oriented states uniformly implied or presupposed *that*-ish states, it would not follow that properly analysed they all are logically or semantically equivalent to statements of type I. Tugendhat further contends that if I picture Dorothea Brooke to myself as a fictional character, I picture her as existing. To be sure, to imagine an apple is not to imagine an apple as non-existing, but neither is it the same as to imagine *that there is an apple*, which is what Tugendhat needs to establish. Moreover, it is far from obvious that when I imagine Dorothea Brooke, I imagine her as existing rather than as non-existing, provided that either of these options makes sense in the first place.

Kenny (1963: chs. V, XI) steers a different course to a proximate reductionist destination. He maintains that sentences where 'I want' is followed by a direct object (rather than by an infinitive), as in 'I want an *X*' can often be expanded into sentences of the form 'I want to  $\Phi$  an *X*': I want an apple – I want to eat an apple, etc. Furthermore, in reports of what he calls 'affective attitudes' the grammatical object of the attitude takes a different form depending on the verb: either a 'that' clause, or an infinitive (I hope that *p*, I want to  $\Phi$ ; I prefer to  $\Phi$ , etc.). Nonetheless, he maintains, they could all be expressed using the construction 'A volits that *p*', since he thinks of these affective attitudes as taking an attitude to a state of affairs. Although this would not dispense with object-oriented intentionality in cases other than wanting unaffected, it would mean that action-oriented cases could be reduced to *that*-ish cases, and hence to something propositional in form. But it is far from obvious that intending to do something is tantamount to wanting a certain state of affairs to obtain. It certainly requires more than simply voliting that the results of the action come about. There is all the difference in the world between A wanting that it be the case that A climbs a tree and A seriously intending to climb a tree. Finally, even if all statements of the form 'A wants to  $\Phi$ ' could be faithfully paraphrased by statements of the form 'A volits that *p*', it would *not* follow that the propositional construction is more basic. For the possibility of paraphrase cuts *both ways* (Glock 2003: 66-70). And the infinitive construction is much more readily understood than Kenny's propositional alternative.

Perhaps the shortcomings of these three reductions could be rectified, and perhaps there are other, more plausible, versions of reductionism. However, we

should not hold our breath. For reductionism confronts a series of obstacles of principle.

The first is a generalisation of a point I just invoked against Kenny. Intending to climb a tree is not the same as desiring to be up the tree plus believing that (only) climbing will do the trick. One can do both, without (seriously) intending to climb the tree, e.g. because one shies away from exertion. Arguably, someone who knows himself incapable of climbing the tree cannot intend to do so, while nonetheless having the appropriate belief / desire combination. To be sure, a young child can intend, try and make an effort to jump over its own shadow. Yet this is only because the child does *not realize* that this is impossible. A cannot intend to do something that A *believes* or *knows* to be impossible.

Following Searle (1983: 30), one might insist that

(5) A intends to  $\Phi$

must be tantamount to

(5') A intends that A  $\Phi$ -s

The reason is that (5) allows of adverbial modifications of the form

(6) A intends to  $\Phi$ M-ly

And (6) means

(6') A intends that A  $\Phi$ -s M-ly.

Why? 'M-ly' does not modify the intending, it modifies the verb ' $\Phi$ '. And such a verb makes sense only in the context of a sentence.

However, the last step is contentious. One might hold that the adverbial modification specifies *what kind of  $\Phi$ -ing* A intends to perform. Of course, the linguistic category *verb* must be understood ultimately not through the infinitive construction on display in 'A intends to  $\Phi$ ', but through the construction 'A  $\Phi$ -s'. But it does not follow that it must be analysed in a that-ish manner.

The second obstacle concerns intentional states like admiration. Admiring Merkel is not tantamount to admiring any particular fact about her. Nor is it identical with believing that Merkel is admirable. One may have that belief, yet fail to admire her. In fact, I find myself in this situation. I think that Merkel is admirable on account of being an astute tactician, on account of having consigned to the political dustbin so many macho Christian democrat challengers, and on account of how she handled the Euro crisis. And yet, when I try to ad-

mire her, my toenails start curling, metaphorically speaking, perhaps because of my inveterate left-wing leanings and sensibilities. There is an emotional or affective aspect to admiration that is not captured by the propositional paraphrase.

The third obstacle concerns perception. It is connected to a wide-ranging and passionate debate about the idea of non-conceptual content, to which I cannot do justice here. But my main concern is this. We need to distinguish propositionalism from *conceptualism* à la McDowell. Perhaps there is no ‘non-conceptual’ content, that is, no feature of what one sees that cannot somehow be conceptualized, described in linguistic terms, if only of an ostensive kind. Nevertheless it would not follow that seeing the Matterhorn can be paraphrased into a construction of the form ‘seeing that *p*’. For it would not guarantee that there is a list of propositions that captures precisely and completely what A perceives—the content of A’s visual field. This much ought to be clear from the failure of phenomenalism.

The final obstacle is once more a generalisation of an objection I raised against Kenny. Let us assume that all cases of action-oriented (type II) and object-oriented (type III) intentionality could be glossed in terms of that-ish (type I) intentionality. Because of the aforementioned *symmetry of paraphrase*, this would not demonstrate that such paraphrases display the underlying logical form of the analysanda or capture A’s mental reality. In the absence of a compelling reduction, however, it is sheer dogmatism to insist that (1) – (4) ultimately express attitudes towards propositions. Of course, the *reasons* people have for admiring Merkel or intending to climb a tree can be expressed through that-clauses. But so can the reasons people have for kicking a ball, and no one would conclude that kicking a ball is therefore anything other than a relation to an object.

### 3 Against that-ish propositionalism

Not all theorists of intentionality subscribe to reductionism. In his later writings, Brentano took the opposite—and in my estimation even less plausible—view, namely that at the most basic level all intentionality is non that-ish. Husserl, Wittgenstein, Dretske and Annette Baier among others, acknowledged that intentionality comes in that-ish and non that-ish varieties. But they had different reasons, and recognized different non that-ish constructions, such as ‘A saw B cross the road’ – the naked infinitive, ‘A saw how B  $\Phi$ -ed’, ‘A saw the rabbit as a duck’ and ‘A admired B as a dancer’ (see Mulligan 2013; Glock 2015).

Nevertheless, that-ish intentionality remains of paramount importance. Does propositionalism at least hold for all of these cases? My answer is negative. Many intentional verbs cannot be characterised as expressing a relation either to a proposition or to a sentence.

Before arguing this case, we need to dwell on two components in that-ish constructions of type (I)—the ‘V-s’ and the ‘that *p*’. On the one hand, there is the *intentional verb* (‘thinks’, etc.), which informs us, e.g., that A believes, rather than, for example, knows or fears that *p*. On the other hand, there is a noun-clause (‘that the sun is out’, etc.), which informs us of what it is that A believes, the content of her belief, and is therefore known as the *content-clause*. Switching to the material mode, there is the kind of intentional state on the one hand, the kind of content on the other. These two parameters are in turn connected to an equivocation in nouns like ‘belief’, ‘hope’, ‘desire’, etc. ‘A’s belief’ can refer either to *what A believes*, namely *that* the sun is out, or to *A’s believing* that the sun is out. A’s believing can be erroneous, sensible, or tentative. But what A believes—e.g. that the sun is out—i.e. the content of her belief, cannot (White 1972: 81-3). Conversely, while what A believes can be true or false, A’s believing cannot (although A can of course believe truly or falsely).<sup>4</sup>

The problem with that-ish propositionalism concerns the relation between intentional verb and noun clause. It makes no sense to expect, fear or hope a sentence or proposition, at least not the same sense as to expect, fear or hope that *p*. And given that what I can suspect is what you can believe, this difficulty may be contagious. That is to say, it may show that even though it makes sense to believe the proposition that *p*, believing that *p* is not the same as believing the proposition that *p* (see White 1972; Hacker 1992).

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4 Similarly for ‘statement’: a statement can either be what someone does—namely to perform a speech-act—or what someone states. It is customary to speak of an act/product or act/object ambiguity, on account of the difference between the judging of something to be the case and that which is judged. But while some intentional verbs denote *bona fide* acts of either a linguistic or mental kind, this does not hold true of long-standing beliefs and desires (see Glock 1996: 58-63). And the term ‘object’ commits the reification I inveigh against. The term ‘product’ partly revokes that reification, yet in an unacceptably metaphorical manner. A doesn’t produce a content that *p* by judging that *p*; rather, judging that *p* is a modification of A to be cashed out in terms of A’s (physical, linguistic, mental) acts and abilities. Or so I shall argue. Even a meticulous analyst like White puts a foot wrong terminologically. He distinguishes between what A believes, namely that *p*, and what A has, namely the belief that *p*. But that second locution differs from the first only through the apposition of the label ‘belief’. And while it is tempting to think that the *belief* that *p* is simply what A believes, there is no temptation to hold that the *believing* that *p* is what A believes.

One might respond that in its philosophical usage, ‘proposition’ is a term of art which is exempted from the vagaries of certain intentional verbs in English that rule out locutions like

(7) A fears/expects/hopes the proposition that *p*.<sup>5</sup>

But this invites the challenge to explain what precisely that technical term means. Worse still, because of the illicitness of (7) that challenge cannot be met by stipulating that propositions are simply what we believe, expect, hope, etc.

The denial that what we believe is *always* a proposition seems to imply, however, that in cases in which we *do* believe the proposition that *p*, we have two beliefs, the belief that *p* and the belief ‘in’ the proposition that *p*. The rejection of that-ish propositionalism seems to engender a kind of double-vision. But it is far from clear that believing *in* the proposition that *p* actually equates to believing *the proposition* that *p*. Even leaving this point aside, the appearance of double-vision is deceptive. To say that *A* believes the proposition that *p* is not to ascribe to her a belief in addition to her belief that *p*. Rather, it is to place her belief that *p* in a certain context or focus. Believing that *p* is simply a matter of *believing something to be so*, whereas believing the proposition that *p* is a matter of *believing something to be true*. In the case of simply believing, the focus is on how things are or might be, in the case of believing a proposition, on how they have or might be stated or believed to be. Interpolating ‘the proposition’ between ‘believes’ and a that-clause ‘that *p*’ is appropriate only if a proposition—a sentence or statement—is already in circulation or at least in the air (see Rundle 2001). In switching from ‘*A* believes that *p*’ to ‘*A* believes the proposition that *p*’ we do not maintain the presence of an additional belief; rather, we redescribe the original belief in a particular way.

## 4 Against the building-block model

One might grant that what we believe is not always a proposition, while nonetheless insisting that believing that *p* is a relation to a *content* referred to by the content-clause. That much is taken for granted even by nonconceptualists, who deny that all intentional states are relations to *propositions*. I challenge this

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<sup>5</sup> In the sorely missed St. John’s College discussion group at Oxford, Peter Strawson once tried to assuage nominalist qualms by insisting: “‘Proposition’ is just a term of art.’ To which Bede Rundle replied: ‘Yes, one of the black arts!’

shared assumption. My first step is to reject the *building-block model* of contents. According to this model what a subject believes (the content of A's belief) is a proposition or thought, a complex (abstract) object of which concepts are the components; thus the thought that dogs bark is a complex abstract object of which the concepts DOG and BARK are abstract parts. By a similar token, A's state of believing is a mental process of accepting the whole proposition, and thinking one of the component concepts is a stage in this process; thus to believe that dogs bark, A must think DOG and think BARK. In summary, if A believes that *p*, then she stands in a relation of grasping and accepting an abstract entity, a proposition, of which concepts are (equally abstract) components. It follows that one cannot grasp or accept the whole proposition without having or grasping its constituent concepts.

Its popularity notwithstanding, however, the building-block model is problematic. There are both empirical and conceptual qualms about the idea that entertaining a part of a thought correlates with a definite stage of a more protracted mental or neurophysiological process—the entertaining or judging of the whole thought. As Wittgenstein remarked: 'Thought and intention are neither 'articulated' nor 'non-articulated'; to be compared neither with a single note which sounds during the acting or speaking, nor with a melody' (1967: 217). Without mentioning this passage, Künne complements the musical analogy by its positive counterpart:

... the complexity of a judgment is not like that of a melody but rather like that of a chord. In judging that the moon is round you simultaneously exercise your ability to think of the moon and your ability to attribute roundness. In this respect episodic thinking is different from saying. (1996: 75)

Even in a relatively complex judgement, the subject exercises *several* conceptual capacities *at once* rather than sequentially. This is yet another respect in which even episodic thinking differs from saying, the case on which it is modelled by the building-block position.

Even if these points could be waived, we would only be dealing with stages of *thinking a thought* (of believing that *p*), not with stages of thoughts (of what is believed, namely that *p*). As regards the latter, the building-block model transposes the part/whole relation from the spatial and temporal sphere to a sphere—that of abstract entities—to which, *ex hypothesi*, neither spatial nor temporal notions apply. What seems to give sense to talk of parts and wholes in the case of propositions or thoughts is the fact that the linguistic expressions of thoughts—namely sentences—have components—namely words (see Kenny 1989: 126–7). What is said or thought has genuine components to the extent to

which its linguistic expression has components. These ‘conceptual components’ are, for instance, what A explains when A is called upon to explain what she has asserted (queried, etc.) through the utterance of a sentence composed of words expressing the concepts concerned.

A final objection to the building-block model is what Künne (2008: 179-82) calls the *repetition problem*, noted yet not solved by Bolzano. By contrast to Bolzano and Künne, let us contemplate the problem with respect to propositions rather than complex concepts. How many concepts occur in this ‘content’?

(8) The aunt of my uncle knows the uncle of my aunt

Irrespective of how the concepts involved in a proposition are ultimately to be individuated and counted, the appropriate answer does *not* double-count *aunt* and *uncle*. This displays a significant difference between the ‘content’ on the one hand and a *bona fide* complex object like the (token-) sentence (8) or a *bona fide* sequence of occurrences like the utterance of (8). The concepts *aunt* and *uncle* are not quasi-spatial or quasi-temporal parts of genuine wholes; rather, they are *principles of intellectual operations* that are *employed in dual capacities* by a subject who thinks that the aunt of her uncle knows the uncle of her aunt (see Glock 2010).

## 5 Against the relational model

When a human adult believes that *p*, the concepts expressed by the components of ‘*p*’ are involved not sequentially; rather, the subject exercises *several* conceptual capacities *at once*. This paves the way for challenging the final component of linguistic reasoning, namely the relational model. Even in the linguistic case, A’s thinking that *p* is *not* a *bona fide* relation between A and an object *that p*, whether abstract or concrete. Talk of ‘propositional attitudes’ is misguided not just on account of ‘propositional’, as Quineans would have us believe, but also or even primarily on account of ‘attitudes’. For the idea that belief is a relation between a subject and an entity amounts to a reification of what we think (believe or desire to be the case).

My case for this verdict starts with two features of our intentional verbs that do not fit the relational model. The first concerns the intensionality of thought. According to a mainstream going back to Frege, in statements of type (I) intentional verbs invariably create intensional contexts. If we substitute co-

referential terms within the content-clause, this may lead from a true attribution like

(9) Sarah believes that Cicero was Roman

to a false one like

(10) Sarah believes that Tully was Roman.

The main dissenting voice is that of direct reference theorists harking back to Russell's account of propositions. They insist that if (9) is true, (10) must be as well, even if Sarah fervently repudiates the belief attributed to her.<sup>6</sup>

Both positions are predicated on the relational model: there *must be* a definite answer to the question of whether (9) and (10) are true; and that answer depends on *what kind of entity* Sarah is related to – a Fregean proposition consisting of modes of presentations or a Russellian one consisting of objects and properties. If we look at our actual practice of belief attributions, however, both positions come up wanting. They ignore the context-sensitivity of belief attributions. We can *sometimes but not always* report Sarah's belief in terms that run counter to those she would accept herself, contrary, respectively, to Fregeanism and Russellianism. The limits of substitution within the content-clause are not dictated by an entity—a propositional content—but vary according to the communicative situation.

Let me illustrate this context-sensitivity.

(11) Sarah thinks that the old fool is adorable

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<sup>6</sup> They are prone to reason as follows. If 'Sam believes that Cicero was a Roman orator' is true then so is 'Sam believes that Tully was a Roman orator', even if Sam fervently repudiates the belief attributed to him. Appearances to the contrary arise only because the second belief attribution carries the conversational implicatures that Sam would assent to 'Tully was a Roman orator' or to a sentence with the same content (since Sam might not speak English). However, apprised of these circumstances most competent speakers would reject the second attribution as downright false rather than misleading. Furthermore, they entertain no thoughts whatever about the relation between belief and propositional contents expressible in a miscellany of natural languages; consequently, when uttering or hearing 'Sam believes that Tully was a Roman orator' they certainly do not insinuate or pick up the implicatures imputed to them. For objections to Fregeanism that are not based on this equally dogmatic Russellian alternative see Kenny 1975: 51; Rundle 1997: 83; Wettstein 2004: chs. 8-9.

can be uttered without presupposing that the subject would assent to ‘The old fool is adorable’. This even goes for content-clauses that the subject *could not* use. We can say

(12) Sarah thinks that the old fool will give her a biscuit

even if Sarah is an animal or a child that lacks the concepts of a fool and of a biscuit.

Even within a single content-clause we can speak for the subject, the speaker and the hearer. Consider the following pair of sentences:

(13) Sarah believes that Bishop Berkeley is buried in Oxford Cathedral

(14) Sarah believes that the author of the *Principles* is interred in Christchurch Chapel.

I may be speaking of the author of the *Principles* because Sarah has just read the *Principles* yet has no other knowledge about Berkeley, of Christchurch Chapel because that is how I relate to this building as an atheist with an Oxford degree, of interment because my interlocutor is a pretentious public school boy who takes pride in educated terminology, and so on.

It might be granted that such reports are common and perhaps even unavoidable, but that we tailor them to our audience for the pragmatic reason of facilitating communication. Strictly speaking, the objection runs, we would regard them as mistaken unless they capture the subject’s mental reality. But even if this were so, it would not reinstate the relational model in its Fregean incarnation. To say what someone believes is not to relate her to an entity but to *speak for* the subject on the question at hand, whether or not the subject itself is in a position to do likewise. This can be brought out by noting that most competent speakers would find it perfectly acceptable to analyse (11) in a parenthetical fashion, e.g. as

(11’) The old fool is adorable (Sarah believes)

And they would certainly not hit on the idea that the acceptability of such a paraphrase depends on what sort of abstract entity Sarah is related to.

My second argument against the relational model concerns a contrast between attributions of thought and genuine relational statements. Admittedly, noun-clauses like ‘that the cat went up the oak tree’ or ‘what Carl believes’ are grammatically speaking the objects of beliefs. But they are *intentional* rather than *object-accusatives* (White 1972). The difference can be illustrated by look-

ing at the difference between *believing someone*—a person—on the one hand and *believing something*—something a subject does or could think or say – on the other.

(15) Angela Merkel believes Barack Obama

entails that there is an object  $x$  such that Merkel believes  $x$ . In (15) the psychological verb expresses a genuine relation, since here two relata must exist, one to believe, and one to be believed. By contrast,

(16) Angela Merkel believes that the NSA will stop spying on her

does not entail that there is an object  $x$  such that Merkel believes  $x$ . Nothing in reality need correspond to the noun-phrase of (16), since the relevant state of affairs need not exist or obtain.<sup>7</sup>

A defender of the building-block model might dig his heels in and insist that at least in cases like (16) something must exist, namely a propositional content which is a real object, albeit an abstract one. But this ‘something’ is a grammatical projection from that-clauses rather than a genuine object.<sup>8</sup> Brentano was right to insist that to believe is to believe something. (16) entails that there is something Merkel believes. Yet in the first instance this simply means that Merkel cannot believe anything unless there is an intelligible answer to the question ‘What does Merkel believe?’. Furthermore, the what-clause ‘what Merkel believes’, like ‘what Merkel weighs’, incorporates an *interrogative* rather than a *relative* pronoun. Thus ‘Hollande knows the person Merkel believes’ and ‘The person Merkel believes is Obama’ together entail ‘Hollande knows Obama’. Yet ‘Hollande knows what Angela Merkel believes’ and ‘What Merkel believes is that the NSA will stop spying on her’ do not entail ‘Hollande knows that the NSA will stop spying on Merkel’, if only because one cannot know a falsehood.

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<sup>7</sup> In discussion, Kevin Mulligan put it to me that ‘A believes B’ is to be analysed as ‘A believes B to be F’, with ‘F’ meaning something like trustworthy, sincere, reliable. But even if that is correct, and even if the latter is in turn to be analysed that-ishly as ‘A believes that B is F’ (a step Mulligan does not take), the difference I invoke remains intact. For the latter does not hinge on whether or not ‘Merkel believes Obama’ might be reduced to a case involving ‘Merkel believes that p’, but that it presupposes the existence of Obama. That much must be preserved even in any that-ish analysis, otherwise the latter is just wrong.

<sup>8</sup> *Pace* Quine, the term ‘something’ is wider than ‘object’. ‘Something’ is syntactically trans-categorical: it can quantify into the positions of singular term, predicate, and sentence. Only in the first case is it equivalent to ‘object’ (Glock 2003: 52-63).

Similarly, ‘Hollande knows what Merkel weighs’ and ‘Merkel weighs 70 kg’ do not entail ‘Hollande knows 70kg’, since that sentence is ungrammatical. Neither ‘what Merkel weighs’ nor ‘what Merkel believes’ signify an object to which Merkel is related. By the same token, believing that  $p$  is no more a *genuine relation* to an object than weighing  $n$  kilograms.<sup>9</sup>

It might be objected that there are pertinent contexts in which ‘what Merkel believes’ incorporates a relative pronoun. In conjunction with (16)

(17) Hollande believes what Merkel believes

entails

(18) Hollande believes that the NSA will stop spying on Merkel.

But (18) is not underwritten by our knowledge that Merkel and Hollande are related in the same way to an entity beyond space and time, whatever that might mean. It is underwritten by the fact that both share certain properties regarding a particular question, namely the question of whether the NSA will stop spying on Merkel. Even in this context, ‘what Merkel believes’ is an interrogative clause in a less direct sense, since its sense derives from the way in which Merkel would or could respond to a certain question, or react in certain situations, e.g. when it comes to raising the tapping scandal in a meeting with Obama.

That different people  $A$  and  $B$  can think the same thought or hold the same belief does not mean that there is an abstract object to which they severally stand in the relation of thinking, believing, saying, etc. It just means that both  $A$  and  $B$  believe that snow is white; that is to say, what they both believe can be expressed by the same declarative sentence. If  $A$  and  $B$  are to disagree, what  $A$  says or asserts must be what  $B$  denies. But this does not commit one to the existence of self-subsistent entities beyond space and time, but only to the conceptual truism that if  $B$  denies what  $A$  asserts, and  $A$  asserts that  $p$ , then  $B$  denies that  $p$ .

The measurement analogy does not just pinpoint a weakness in the building-block model, it also supports the capacity alternative that I call the ‘capacity approach’ (Glock 2013a). When we ascribe a weight to a material object, we do not ascribe to it a genuine relation to an abstract object. Rather, we ascribe to it

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<sup>9</sup> For the measurement analogy, see Davidson 2001: 60, 75, 214-8; Beckermann 1996; Matthews 2007.

a relation to other material objects, for instance that of being in balance with a cube which contains 60 litres of water. *Mutatis mutandis* for the case of belief. In ascribing a belief to a subject A, we ultimately describe and explain their actual or possible behaviour. We place A not in a relation to a genuine object, but in the context of a system of describing and explaining A's behaviour and behavioural capacities. Accordingly, a subject can believe something to be the case without standing in a relation to a 'content' and hence without running through or even possessing the concepts which feature in the content-clause we use to ascribe the belief.

## 6 An unnoticed contrast

The concepts of content and representation are two of the most important concepts in contemporary cognitive sciences, and pivotal to representationalism. They are also usually regarded as tightly related - hence the label 'representational content'. There are two possibilities regarding the relation between representation and content. Representational contents could be

*Representanda*: representational content is represented, i.e. X represents content C.

*Representantia*: representational content represents, i.e. content C represents Y.

Both options have enjoyed widespread support. Here are two instances of the idea that content *is represented*:

'one can represent a content doxastically' (Chalmers 2004: 155)

'if a mental representation M represents a content C' (Prinz 2006: 441).

The opposing view, according to which *content represents*, is adopted in these two passages:

'the way a given content represents it [the world] as being' (Brewer 2006: 173)

'intentional content that represents the world' (Martin 1992: 745).

The schism carries over to the two types of content commonly distinguished—concepts on the one hand, propositions on the other. Here are two examples of the idea that *concepts* are representanda:

'Consider a simulator that *represents the concept* of bicycle.' (Barsalou 2009: 1282)

'the brain *represents concepts*' (Binder and Desai 2011: 528).

And here are two cases of the opinion that concepts are representantia:  
 ‘*Concepts represent, stand in for, or refer to things other than themselves.*’  
 (Prinz 2004: 3)  
 ‘*concepts represent whatever they do precisely in virtue of these roles.*’ (Aydede 2010).

Turning finally to *propositions*, the following authors regard them as representanda:

‘The human [...] mentally *represents a proposition* in thought.’ (Currie 1980: 247)  
 ‘thinking that p requires *representing the proposition* that p.’ (Cummins 1996: 3).

By contrast, these authors treat them as representantia:

‘the states of affairs which the *proposition represents*’ (Faulkner 1998: 307)  
 ‘the *proposition represents* the world’ (King 1995: 517).

The existence of these two options would seem rather obvious. Astonishingly, however, the difference between them has rarely been noted.<sup>10</sup> To my knowledge, the first one to plot it systematically is Kevin Reuter (2014), to whom I owe the quotations listed above. I fully concur with Reuter that the difference between the two options is of central importance to the conceptual framework of cognitive science, at least in the representationalist tradition. At the same time, I do not share his view that the two options stand in tension, and that they have not been combined. Reuter writes:

While this is certainly a theoretical possibility, there does not seem to be a single author who holds such a position explicitly. ... Another reason for rejecting this possibility is that if it were true, at least one of the readings of representation would not retain its original meaning because it would not be compatible with commonsense: People do not seem to claim that x is about or means c which itself is about or means y, e.g. a fairy tale does not seem to be about a certain content that is itself about dragons and tigers... (2014: 8)

I applaud taking commonsense *cum* ordinary discourse into the equation (contrary to the contempt in which both are foolishly held by a majority of contemporary cognitive scientists). But the incompatibility between commonsense on the one hand and thinking that contents are both representanda and representantia that Reuter diagnoses is an artifice resulting from his terminology.

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**10** But see Glock 2009: 23-9, which documents how Fodor and some of his disciples waver between the two options in the case of concepts.

Like Reuter, I accept that one cannot say of a sentence that it is *about* a content. Unlike him, I hold that there is an antecedent incompatibility between ordinary discourse and the very locution that a sentence or text *means* that *p*, irrespective of whether the latter is regarded as a content (Glock 2003: 154-5). However, if we avail ourselves of the idiom of representation in the first place, we next need to distinguish *various ways* in which *X* might be said to represent *Y*. Being about or meaning *Y* are only two of several options. *X* can also represent *Y* in the sense of *expressing* *Y*. And a sentence or text—fairy tales included—can certainly express ‘a content’, e.g. that once upon a time there was a cruel king with a benevolent and intelligent daughter ... Furthermore, that content might be said to present the world as being a certain way, namely such that once upon a time ... Finally, at least in the case of non-fictional sentences and texts, the expressed content might be said to be about something in reality (an object, event, etc.).

Reuter’s further conjecture that as a matter of fact no one has ever knowingly combined the *representanda* and *representantia* options is mistaken. (Neo-)Fregeans like Peacocke and Kühne hold, consistently if perhaps not correctly, that concepts and propositions are at the same time *representanda* of the predicates and sentences of public languages and *representantia*—modes of presentation—of, respectively, properties and states of affairs (see Glock 2009: 28n). Thus, according to Kühne concepts qua modes of presentation are ‘representational abstract entities’ (2007: 346-7). This proposal must not be confused with Fodor’s subjectivism, which has it that concepts are mental particulars and predicates of a neurophysiologically implemented language of thought. Qua modes of presentation concepts are not predicates of a language of thought. Instead, they are at the same time *representanda* of the predicates of public languages and *representantia* of properties.

Kühne distinguishes between application, connotation and expression: the general term ‘dog’ applies to all and only dogs, connotes the property of being a dog, and expresses the concept of being a dog (2005: 254, 263 and fn. 31; see also Kühne 2003: 4). By this token, concepts are *representanda* of general terms in the sense of *being expressed* by them. At the same time they are *representantia*, in that they ‘determine’ properties. Reuter’s incompatibility thesis nevertheless contains an important kernel of truth. It is hard to see how contents in general or concepts and propositions in particular could both be represented and represent in the very same sense.

Once this point is acknowledged, what are we to make of positions that deny either that contents are represented or that contents represent? In the presentation from which his paper was derived, Reuter ascribed to the former camp the following line of reasoning: ‘no one doubts that people represent the

world by using concepts. If content is constituted by concepts, and if concepts represent the world, then it follows that content represents things in the world<sup>11</sup>. Reuter condones neither this stance nor the argument; and he is well advised to do so. The argument is a *petitio*. The point of agreement between the two camps is that content is constituted by concepts. Whether propositions and concepts represent the world is precisely the bone of contention. Even if people represent the world by using concepts, it does not follow that concepts represent the world, but merely that they are employed in representing the world. Finally, denying that propositional contents are *representanda* is at odds with a core claim of representationalism, namely the relational model. If thinking is a matter of standing in a relation of representing, then in

(19) A thinks that *p*

the content that *p* must be represented, namely by the subject A, or by one of A's mental states of thinking.

Can one deny that contents are representantia? Once more representationalism would seem to rule this out. For contents are supposed to represent the world by having semantic properties. That is the very point of speaking about them as representations or *representational* contents. By this token, propositions represent the world by having truth-conditions, i.e. being true under certain circumstances and false under others; and concepts represent the world by having satisfaction conditions, i.e. being instantiated by objects possessing certain properties and not being instantiated by objects lacking these properties (see sect. 7 below).

To wrap up this section, let me venture a guess as to why the contrast has been largely ignored, and why many authors oscillate between the two options in a way that is confusing at best and incoherent at worst. I shall restrict myself to the case of propositions, in which the temptation is most transparent. It arises from the fact that noun-clauses in general and that-clauses in particular are systematically ambiguous in the following sense. One and the same that-clause can designate both what A believes or desires—the propositional content—and the state of affairs which, respectively, verifies A's belief or satisfies A's desire. If A's belief is true or her desire satisfied, the that-clause designates not just a possible state of affairs, but an obtaining state of affairs, i.e. a fact. This leads to the idea that there is something that stands in or mediates between A or A's

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<sup>11</sup> See his abstract at [http://www.sfb991.uni-duesseldorf.de/fileadmin/Vhosts/SFB991/a02/CC\\_Broschuere\\_final3.pdf](http://www.sfb991.uni-duesseldorf.de/fileadmin/Vhosts/SFB991/a02/CC_Broschuere_final3.pdf)

believing/desiring on the one hand, and the world—a state of affairs or fact. Propositional contents appear as representanda if one focuses on the relation between A or A's believing and what A believes; propositional contents appear as representata if one focuses on the relation between what A believes and the way the world is or might be, between what A believes and what is the case if A believes truly; and *mutatis mutandis* for desires. But the idea of such a shadowy entity between the subject, her thinking or speaking on the one hand and the world is misguided. Wittgenstein's reflections on intentionality provide one set of reasons for thinking so (see Glock 1996: 184-9), my animadversions above are designed to provide another.

## 7 Against representationalism

We are now in a position to appreciate that there is a fundamental flaw in the language of thought hypothesis and a more general problem with the idea that concepts or propositions are representations. Following Peirce's theory of signs (1933), one can distinguish between different types of representation:

*Icons* resemble what they represent

*Symbols* are related to what they represent by convention

*Indices* are connected to what they 'represent' by causal dependencies or by other natural relations such as spatial or temporal proximity.

Thus realist paintings are icons of what they represent. Linguistic expressions, with the possible exception of onomatopoetic ones, are symbols of what they represent. The word 'dog', for example, is connected to the animals not through any kind of resemblance, but through an arbitrary convention. Smoke, finally, is an index of fire, because it is a causal result of fire.

Given this distinction, one might deliver the following brief verdict on the idea of a neurophysiological language of thought:

- Patterns of neural firings are certainly indices of external phenomena, but only for observers with neurophysiological measuring equipment, not for ordinary subjects of thought;
- they might be icons (but are not);
- they cannot be symbols.

That neural firings are causal results of external events and causal preconditions of perception is agreed on all sides. The extent to which there is, for example, a spatial resemblance between the objects of perception and the neural

activities that underlie perception, is a matter for empirical investigation. For the most part, no such iconic relation has been observed. Although experiments like those of Hubel and Wiesel show that particular neurons are involved in seeing lines of a particular orientation, there is no iconic similarity between the lines and the pattern of firing neurons. Finally, neural firings cannot be symbols because there is no one who uses them to represent anything in a conventional manner (a point to which I shall return). Consequently, there can be no mental symbols and hence no language of thought.

What about the more general idea that concepts are representations? According to an orthodoxy shared by RTM, concepts must be shareable because they are components of what subjects believe and desire, of shareable thoughts or propositional contents. But acknowledging that different subjects can share a concept is incompatible with maintaining that they are particulars in the heads of individuals. Furthermore, as their components, concepts are *in the first instance* no more representations or signs than propositions themselves. They are *what is represented*—in the sense of being expressed by general terms and employed by subjects. They are the content of thinking, *not what represents*, i.e. what expresses these contents (Glock 2009: 23-9).

This lesson is in line with the common sense view that concepts are *expressed* by signs such as predicates or logical operators. It also follows from a more basic feature of the notion of representation. *Bona fide* representations, that is, those of an iconic or symbolic kind, require a *medium*. That is to say, they have *representational* properties by virtue of having *non-representational* properties. For instance, Rembrandt's self-portrait in the National Gallery of Scotland represents a particular individual on account of more basic properties, roughly the way in which it arranges colours and shapes (see Hyman 2006). Similarly, the sign-token 'Rembrandt Harmenszoon van Rijn' signifies that same individual on account of its typographic properties, which are subject to the kind of conventions characteristic of symbols.

The idea that thoughts and concepts are (mental, computational or neural) representations is incompatible with this defining feature of representations. With apologies to Marshall McLuhan, thoughts—and by implication concepts—are all message and no medium! (Hacker 2010: 282n). Or, with rather fewer apologies to Wittgenstein, thought is not a linguistic symbol requiring interpretation; it is itself 'the last interpretation' (1958: 34).

But couldn't Fodor respond that concepts and propositions qua sign-types of Mentalese *do* occur in a medium, namely of neural firings? The latter represent propositional or conceptual contents on account of their non-representational physiological or physical properties. According to Fodor, for instance, these representations have certain syntactic properties—properties

determining the way they are processed—on account of their physiological qualities, and they have certain semantic properties, properties determining what they represent, on account of their causal relations to the environment.

At this juncture, the *epistemic* or *cognitive* dimension of representations comes into play. The non-representational properties of representations must be *accessible* to the subject of representation. After all, a representation *R* is not just a sign of *something*—an object *O*, but a sign for *someone*—a subject of representation *A*—someone to whom *X* is represented through *R* (again, the point was epitomized by Peirce, in his famous semiotic triangle). Yet neural tokens of computational types are entirely and in principle inaccessible to the subject, they are ‘deeply unconscious’, to use Searle’s (1997) critical label. By the same token, they cannot be used by *A* *intentionally* or, *a fortiori*, with the intent to represent anything. Nor can the subject employ them according to rules, as required for symbolic representation.

There is possible defence of RTM: neural signs may not be employed by personal subjects, but they can nonetheless be employed by *sub-personal subjects*, e.g. by the brain, its parts, or functionally defined modules.<sup>12</sup> But this response invites the charge of a ‘homunculus’ or ‘mereological fallacy’ (Kenny 1984: ch. 9; Bennett/Hacker 2003). This is the fallacy of explaining mental attributes of an animal or subject—in our case the capacity for conceptual thought—by postulating sub-personal subjects—homunculi—with the same or similar mental capacities—in this case the capacity for the intentional employment of signs. The explanation is fallacious because these capacities can only be attributed to the animal or subject *A* as a whole, and not—save metaphorically—to its parts, whether they be organs like *A*’s brain or capacities like *A*’s mind. Furthermore, even if it made sense to credit sub-personal instances with symbolic understanding, this would only push back the problem. One then needs to explain the representational capacities of these postulated homunculi, which engenders a regress.

Yet surely, to anyone except die-hard behaviourists the very existence of cognitive phenomena shows that there are mental representations! Doesn’t thought require some kind of representation? The answer is yes, but only if ‘representation’ is divested from the standard connection with a medium and understood in a *minimalist* sense. On that understanding, our thoughts are rep-

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<sup>12</sup> Fodor himself does not fall back on this response. He grants that ‘*nobody ever* interprets mental representations’ (2008: 16). Yet this concession removes any license for holding that these representations are symbolic, and hence for speaking about a *language* of thought.

representations, simply because they have what are nowadays called semantic properties:

- a proposition that  $p$  is true or false
- a singular thought or description  $a$  refers or fails to refer to an object  $x$
- a concept  $F$  applies or doesn't apply to an object  $x$ .

However, representations in this minimalist sense cannot *explain* thought. For to represent (that  $p$  or  $x$  or  $F$ s or things being  $F$ ) in this sense *simply is* to think (to think that  $p$ , about  $x$ , about  $F$ s, or about things being  $F$ ).<sup>13</sup> Representationalism is reduced to uninformative claims like:

to think that  $a$  is  $F$  is to represent  $a$  as being  $F$ , and to think of  $F$ s qua  $F$ s is to represent  $F$ s, etc.

The capacity approach, by contrast, at least holds the promise of a genuine explanation. Not a causal explanation of the phylo- or ontogenesis of the capacity for thought, to be sure, or of the proximal (neurophysiological) mechanisms that constitute its vehicle. In that capacity, capacities are out of their depth, as Molière and Nietzsche (1886: §11), among others, observed. The appeal to powers instead promises a *conceptual* explanation of what thought amounts to: what it is to think that  $p$  or about  $F$ s as  $F$ s is spelled out in terms of the possession of certain cognitive and conative abilities. In short: the appeal to potentialities may be bad cognitive science, yet nonetheless good philosophy of mind.<sup>14</sup>

## Literature

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**13** Austere representationalists such as Husserl (1900), have disassociated the idea of representation from any specific connotations, from the link with a particular medium whether they be mental images or words crossing one's mind, neural firings or computational symbols. But such positions once more face the task of explaining what having a representation amounts to. In Husserl's case, for example, we seem to be left with the idea that it is 'just like' mental picturing, only without mental images. But that simply boils down to saying that having a representation of (an)  $F$  is to think about (an)  $F$ , which means that the explanation of thought has moved in a circle. A logical relation, thinking about (an)  $F$ , has first been construed as a pictorial one, and has then been robbed of the pictorial aspects which alone give it substance (Tugendhat 1976: 62-3, 276-7).

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