

A few weeks ago, Maurice Bloch, Dan Sperber and several others had a debate on the nature of those beliefs (in particular 'religious' beliefs) that cannot easily be made fully explicit, or brought to bear on concrete matters (so-called 'semi-propositional beliefs' - here called 'opaque' beliefs). The question, very roughly, was the following. Can such beliefs be arrived at only through some form of reasoning or of trust? In other words, must they be 'reflective' rather than simply 'intuitive'? Maurice argued that such beliefs can be intuitive, but Dan disagreed (if you missed the first installments of the feuilleton, see [here](#) and [here](#)). Dan imagined a friendly discussion with Maurice, taking place around a glass of wine, which has now prompted György Gergely to jump in the debate. (O.M.)

Under the mild mental pleasure that the virtual and vicarious consumption of wine in the distinguished company of such authorities on both wine and opaque beliefs (pardon me for the expression) as Dan Sperber and Maurice Bloch induced in me, I feel liberated to raise some - admittedly opaque but for me at least mildly intoxicating - questions concerning Dan's characterization of the nature of having reflective semi-propositional beliefs.

What it is like to be holding a reflective belief of opaque content?



Pierre Soulages (the master of pictorial opacity). Peinture (1956). Musée National d'art Moderne, Paris

It seems to me that Maurice (irrespective of the amount or even quality of wine consumed) is taking a phenomenological approach to the subjective experience of holding a belief when he insists on the identity of having what Dan distinguishes as intuitive versus reflective beliefs (when claiming that the Zande believe in cows and witches alike). This is not the relevant issue, however, for Dan for whom the question of 'how it feels like' seems orthogonal to how we define it: "I keep telling Maurice that a belief may be wholly familiar and self-evident to a believer and still not be intuitive as I have defined the term". Dan's definition of different types of cognitive attitudes to beliefs makes reference to different kinds of inferences and justifications that the believer of reflective beliefs is ready (or feels appropriate) to engage in (in contrast to the believer of an intuitive belief) in so far as reflective beliefs licence justification by deference to authority in the first place.

This characterization together with the proposal that reflective beliefs are "held with awareness of the reasons and often with attention to those reasons" raises two - admittedly psychological and even empirical - questions:

Do reflective beliefs imply or require cognitive access to the memory of the source authority?

In other words: Does Dan's distinction entail that reflective believers have stored memory representations of, and ready cognitive access to the source authority of the belief (say, memory of the communicative event(s) that involved the revelation of the belief content by the authority (or its representative) to whom justificatory deference can then be made (when asked))? From the

developmental point of view this sounds unlikely in so far as young children are known to be notoriously bad in source memory access when it comes to reporting the sources of their beliefs. Would Dan's view predict that this should hold at least to a lesser degree in the case of the memories of the causal sources of reflective beliefs that would be encoded better or represented in a more accessible format than the sources of intuitive beliefs?

Alternatively, the contents of reflective beliefs could be encoded in a special representational register or format that would specify their justificatory conditions as 'deferrable to authority' without the support of having the actual source memory of the historical communicative event of belief-fixation that would specify the source authority to be deferenced. In this case the question is: What input conditions trigger the special kind of 'representational register of format' that tags the belief content with the justificatory condition of being 'deferrable to authority'?

Deference to authority versus deference to common knowledge.

A related issue is that apart from justification by deference to authority many reflective beliefs seem de facto characterized by a licence for justification by deference to common or public knowledge that are shared by other members of the community as well. These two types of justifications are clearly not unrelated, of course, but - at least from the perspective of natural pedagogy theory (Csibra & Gergely, 2009, in press) - it seems reasonable to argue (and some recent evidence is now available to support this view, Egyed, Király, & Gergely, submitted) - that ostensibly communicated acts through which opaque belief contents are demonstrated trigger in infants a built-in assumption that the manifested content represents and conveys a belief that is shared by all members of the cultural community (therefore, they are treated from the start as applicable and generalizable to others).

For some types of opaque beliefs at least, when asked the impertinent 'why do you believe that X' question it seems natural to defer justification to common knowledge ("well, doesn't everybody know this?") without making reference to any specific source authority such as "this is what my mother, the priest, the shaman, or the school teacher told me" (even though these authorities may well have been the actual ostensive sources of the belief acquisition). Examples of this would be reflective opaque beliefs such as "the word 'stone' refers to stones", "after 'eeny-meeny' comes 'miny-mow'", , "a cork screw is for opening wine bottles", and maybe "'blue' is the colour of sadness" or even "witches travel on brooms" and "they are wicked".

Should we consider these cases to be identical to reflective beliefs whose justification involves primarily deference to authority? Are the former just derivatives of the latter? And isn't there a (theoretical) need to capture a child's differential cognitive attitude in relation to justificatory deference when it comes to his or her reflective opaque beliefs such as (1) versus (2)?

"there are negative numbers"

"the word 'stone' refers to stones"?

It seems more appropriate for a pupil to justify her partially opaque belief in (1) by deference to the authority of the trusted teacher rather than by deference to common knowledge, while (in the case of one's mother tongue at least) the opposite seems to hold in the case of (2). Or should we consider (2) an intuitive belief fixed through our evolved LAD that maps words onto basic concepts in our innate conceptual repertoire making (2) to be on a par with our intuitive beliefs that are individuated by our perceptual system? And what about our beliefs in the proper function of artefact kinds such as (3) to (6)?

A knife is for cutting.

spoon is for eating soup.

A phone is to talk to others who are far away (and have a phone).

A watch is for showing the right time.

Infants (as young as 10-month-olds, see Futó, Téglás, Csibra, & Gergely, in press) seem ready to form beliefs about the essential functions of novel artefact kinds on the basis of ostensive communicative demonstrations of their functional use. If word-concept relations were to be considered intuitive beliefs fixed by LAD (I really don't know if Dan or Maurice would consider this option to be far-fetched), should we by analogy also consider that artifact functions are intuitive beliefs fixed by AAD?

Types of opacities, or types of ways we (come to) entertain them?

As an (as yet somewhat opaquely) related further issue I feel that Sperber's construct of reflectively believing partially opaque beliefs covers two types of cognitive attitudes that may be useful to differentiate.

First type Opacity : Opacity with a dim (guiding) light at the end of the tunnel: an 'enlightened' reflective attitude to semi-propositional beliefs that involves a 'presumption of full propositionality of content'.

It seems that in certain cases one acquires and represents reflective semi-propositional beliefs with an enlightened cognitive attitude of (temporary) credulity in the source of authority. For example, when the relevant authority informs the pupil that there are negative numbers and provides symbols to refer to them, the child will represent and store this - for her currently still largely opaque - semi-propositional belief with a cognitive attitude of trust in the possibility and prospect of rational discovery of its (presumed) fully propositional content. This kind of reflective but partially opaque belief seems to be stored and encoded together with the implicit promise that it is worth exercising one's critical faculty of exploring coherence conditions to check for compatibility with other intuitive and reflective propositional beliefs that one holds. In other words, in such cases one holds one's reflective semi-propositional belief with the 'presumption of full propositionality of content'. This presumption is reflected in the kind of effortful inferential work that the cognitive attitude supports driving the individual towards rational attempts at discovering and understanding well enough the (presumably) fully propositional content of the reflective belief. Given that the promised cognitive land of full (or good enough) understanding of the belief's propositional content is successfully reached (as a result of such reflective inferential efforts), the validating context of the reflective belief will become transformed from justification by deference to authority into justification by deference to (well-formed) arguments. As a further move towards expertise (see Sperber (1997) in *Mind & Language*) the eventual automatization of the knowledge-base and the inferences involved in the justificatory argumentation about the propositional belief will even result in the reflective propositional belief becoming an intuitively held propositional belief.

Second type Opacity : Opacity in the glow of essential darkness: a conservative or fundamentalist cognitive attitude of credulity towards the contents of semi-propositional beliefs.

These are cases when one has the cognitive attitude of 'wariness' about the 'advisability' of attempting to 'understand', i.e., to critically apply one's rational faculty to modify the partially opaque content of the semi-propositional belief in order to clarify it (in the hope of turning it into a fully propositional belief). A prime case is, of course, provided by 'religious' beliefs such as Dan's (justifiably favourite) example (7):

The Father, the Son, and the Holy Ghost are one.

The cognitive attitude of 'wariness' towards attempting to rationally clarify or modify the opaque

content of such reflective beliefs seems to suggest that the cognitive attitude towards such belief contents does not involve a 'presumption of full propositionality of content'. Rather, the attitude reflects the (tacit) understanding that this kind of opacity is essential and/or socially constituted: that it is 'public or shared opacity' that should not be fiddled with (as the belief functions only as long as its opacity is shared, reserved, and respected by all). To the degree that this kind of opacity of content is indeed socially constituted and shared, to change and modify its opaque content by any one individual holding the belief would endanger the sharedness (and consequent functionality) of the opaque belief. Such individual attempts at cognitive clarification of this kind of opacity would run the risk of dissolving the glue of shared knowledge (however opaque) that constitutes the content of the reflective belief. In other words, one's justificatory criterion of deference is one's (opaque) belief that one's opaque understanding of the belief is 'opaque in the same way' as others' opaque understanding of it. As if there would be a social contract about the opacity of the shared belief whose functioning is being threatened by enlightened individual attempts at modifying semi-propositional opacity to achieve full propositional clarity.

My question to Dan is how we should capture (representationally as well as developmentally) the nature of these basically different cognitive attitudes towards reflective semi-propositional beliefs. One possibility is to suggest (as I feel Dan would) that there is no fundamental distinction to capture here: at the time of the acquisition of the reflective semi-propositional belief content the child takes an epistemically enlightened attitude always (i.e., initially entertaining the 'presumption of full propositionality of content' in all cases).

In this view, this initial 'enlightened epistemic stance' can become changed due to two kinds of sources of information: a) by reaching a cognitive understanding that the search for full propositionality is futile because the "arguments about the content are bound to be inconclusive, which may be a reason to avoid them altogether (as do the Zafimaniry)", and b) by the cognitive impact of the social reactions of the trusted authorities to the (naturally arising?) reflective inquiries of the child, that represent rebuff, scorn, or even punishment and ostracization on the one hand, and arguments of the exigesic sort on the other, that "are in favour of interpretations that are themselves semi-propositional, and hence the exegesis never comes to a conclusion."

So let me raise my imaginary glass for a refill.