Reflective knowledge and the “sense of knowing”

Fernando Broncano
Universidad Carlos III de Madrid

(1)

The jacket illustration of *A Virtue Epistemology* shows the Vermeers’s *The Art of Painting*. This famous canvass raises an intriguing suspect of paradox when one ask for what is represented in the picture: how it is possible to paint the own back while one is painting a sight?. Certainly one could consider the picture as representing the very percept, as held by some indeterminate observer. But, how it is possible to paint the perceptions of other mind? Clearly, between two impossibilities, one is led to interpret the canvass as representing the imaginative simulation of one alien mind. That is, the canvass paint a meta-representation. The question leads then to one about whose is this metarepresentation. Perhaps was Vermeer self-portraiting?, or by contrast, was him imagining another person seeing him while painting?, or, finally, was him painting a general scene of somebody seeing some other painting?. The picture is the same, but the represented subjects are very diferent in the three cases.

A similar scenario is that one in which E. Sosa addresses the question of reflective knowledge, when escaping from the consequences from the demands from the sceptic, that is, that, in order to know that p one must also know that one is not dreaming (as well other undermining possibilities). Epistemic agents are gifted of reflective knowledge to deal with the philosophical scepticism\(^2\) according to E. Sosa’s virtue

---


2 Sosa expresses in this way the philosophical scepticism:

“A1. Any theory of knowledge must be internalist or externalist.
A2. A fully general internalist theory is impossible.
A3. A fully general externalist theory is impossible.
C. Therefore, *philosophical scepticism is true”*

epistemology. Such faculty must be a kind of *meta-competence* that reaches further than mere coherence of beliefs. For one thing, “coherence might conceivable be detached from the environing world of the thinker, so as to deprive him of reliable access to truth”\(^3\). Fleeing from the threats of circle or regress, Sosa stipulates this meta-competence with the function of examining the quality of the agent epistemic position. Reflective knowledge aims to exclude luck of the epistemically apt formation of true belief. This level provides a higher quality to the knowledge.

Sosa defines meta-knowledge in this way:

> "Reflective knowledge goes beyond animal knowledge, and requires also an apt apprehension that the object-level perceptual belief is apt. What competence might a believer exercise in gaining such meta-apprehension? It would have to be a competence enabling him to size up the appropriateness of the conditions" (Sosa (2007) p 108)

Reflective knowledge turns out the to be a meta-competence. That is, a faculty or disposition to aptly evaluate the circumstances. The question is that, depending on how we conceive this competence, the evaluation could or could not discriminate among evaluative results as our possible interpretation of the canvass exemplifies. But the subject is involved in very different ways in each case. The question we address is then just about the degrees in which subject must be involved in reflective knowledge.

A first step is to note the particular contribution to the epistemic value that reflective knowledge confers to the overall process of knowing. For one thing, reflective knowledge adds justification to the first-order aptness as it strengthens the cognitive success in the particular circumstances by contributing to reduce luck in this achievement. The device that affords such justification is formed by two components, according to Sosa. The first one is the following:

\[ \text{Principle of epistemic ascent: \text{"If one knows full well that } p \text{ and considers whether one knows that } p, \text{ then one must be justified in thinking that one does"} } ((Sosa (2007) \text{ p.114})\]

The second one excludes possible undermining alternatives:

\[^3\text{ Sosa (2007) p 190}\]
Principle of closure of epistemic justification: “If one is fully justified in believing that p necessarily, unless it is so that q, it cannot be so that p, then one must also be justified in believing that q” (Sosa (2007) p 115)

Stepping up the two principles, the subject reaches to form the judgment that she justifiedly knows that p. This judgement is enabled by the

Principle of criterion: “PC2. In order to know full well that p one must be justified in believing (at least implicitly or dispositionally, if not consciously) that one’s belief that p is formed in a way that is at least minimally reliable, that it has at least minimally reliable source (if the proposition that one’s source is thus reliable is within one’s grasp)” (Sosa (2007) p. 122)

It is interesting to note that Sosa allows that the rational endorsement of reliability can be produced in unconscious or implicit ways. The reason is that reflective knowledge comes from a disposition to correctly evaluate the reliability of the faculties, and this disposition could work in some different ways. Reflective as well as unreflective knowledge both produce apt true beliefs, and this production, Sosa argues, is at some point independent of the degree in which subjects are voluntarily engaged. The sole condition is that subject can be confident about her reflectively obtained belief, and can be a result of an overwhelming disposition to confidently believe.

Answering to a previous version of this paper, Sosa distinguishes between the constraints that assertions and beliefs meet. Assertions, public as well as private ones, are voluntary judgments, and therefore submitted to the qualitative conditions of any intentional action. But confident beliefs not necessarily have to be conditioned in such a way. It is sufficient that they come from a particular meta-apt faculty or disposition.

I concede that assertion is not a necessary condition for knowledge; meanwhile it can be necessary for other aims, as for instance ulterior inferences from the belief, as well as in the communicative or testimonial uses of the belief. My point is that the analogy between true belief and intentional action can be pursued beyond the voluntary and full intentional level (the level

4 A kind of unreflective justification can be conferred by the first-order aptness. But this second-order meta-aptness provides a rational justification: Reflective rational justification, by contrast, is acquired at least in part through rational endorsement: either through endorsement of the specific reliability or one’s basis (or at least or the safety of one’s basis, of the fact that it would not lead one astray in delivering the deliverance that p) or through endorsement of the generic reliability of one’s basis” (Sosa (2009) p 239. The difference between the two kinds of justification is the lack of endorsement (in the case of unreflective justification) and the necessary rational endorsement (in the case of reflective knowledge.

5 Sosa (2009 b) “Respuestas a mis comentadores”, Teorema XXVIII/1, 2009, pp. 112-124
of full assertive and intentional acts) to a deeper level of normatively constrained level of constitution. In this sense, I argue that aptness and control are normative conditions of knowledge and action respectively, and that both properties share a same requirement of good cognitive integration for the subject. And that the mere meta-apt well functioning can not be sufficient to achieve knowledge and purposive action respectively.

Let’s imagine Bill Tell doubting in the very moment of shooting about his skills to safely hit the apple above his son’s head. Let’s consider now the content of the following propositions:

(1) I am skillfully prepared to shot
(2) Bill Tell is skillfully prepared to shot
(3) I believe that I am skillfully prepared to shot
(4) Bill Tell believes that Bill Tell is skillfully prepared to shot
(5) Bill Tell believes of himself that he is skillfully prepared to shot

The belief that one is prepared to shot is the same, but obviously, the five possibilities are very different attending their consequences. (1) and (2) are propositions that can express transparently the knowledge state of Bill Tell. The other ones, (3), (4) and (5) can be involved in assertive judgements as well as in testimonial cases, but, according to Sosa, the trustworthy beliefs (1) or (2) are the only required for reflective knowledge. Bill Tell is confronted with exactly three options open up to him:

“(…) (a) “No, I don’t know that,” or (b) “Who knows whether I know it or not”; maybe I do, maybe I don’t,” or (c) “Yes that is something I do know” ((Sosa (2007) p 115)

Here is where appears the integration problem for the subject. According to Sosa,

“Answer (a), and even answer (b), would reveal a certain lack of integration in that stretch of consciousness; only answer (c) of the three, entirely avoids disharmony within that consciousness at that time” ((Sosa (2007) p. 115)

Notice that Sosa is addressing here assertions of knowledge, and it is in this context where he detects a possible lack of integration. Lies here in this sense an ambiguity between the possible state of knowing and the positive assertion of that. That is, between (1) and (2) possible propositions ascribing knowledge to Bill Tell. How self-confidence and knowing are related in the subject is the question of integration I want to address.
Why this question of integration turns out to the apparently paradoxical scenario exemplified by the Vermeer’s painting? To answer the question we must notice that the meta-competence reflective knowledge shows has to evaluate the belief in a particular way:

“...The object of evaluation is thus a particular item, but it is evaluated relative to its relevant wider context. And the wider context may include possibility space, as when an archer hits the bull’s-eye with a shot that it is not only accurate but also “skillful”, with its counterfactuals implications” ((Sosa (2007) p 114)

Sosa considers apt belief as analogous to the apt shooting of an archer. Our example consciously blends the two cases by focusing on the self-confidence of Bill Tell when shooting. His belief is evaluated in this particular circumstance, but this evaluation is made in the frame of a possibility space within of which it is established a counterfactually supported relationship between skill and success: “this successful shoot is due to the archer’s ability”. This relation derives its modal strength from the links between the agent’s faculties and the particular causal circumstances of shooting. The same works in the case of knowledge, that is, a true and confident belief becoming from cognitive faculties working in the evaluated circumstances (in this case, the belief is about the own abilities to shoot).

The feeling of paradox would disappear if an external referee was who evaluated the archer’s merits. The question rises because the referee and the evaluated subject are the same person. The knowing subject is self-ascribing a competence: Is the content of his evaluation the belief (1) or, by contrast, the belief (2)? Compare this question with the Vermeer’s painting case: Truly, a representation of a shooting archer is not a shooting, to difference of the painting of a painter painting, that it does. Some process -- and, by the case, some abilities— have self-referential properties: painting and knowing putatively have it, shooting does’nt. Imagining, language, simulating minds, metacognition are probably cognitive examples of self-referential abilities.

The point is that self-reference preserves the content when passing from a broad context to other narrower context. This is the case when one focusses on the painter of The Art of Painting, or, by contrast, when one scales up to the whole canvass. The content of the primitive image is preserved, however the meaning is now very different, for it passes from a third-person view to a first-person view. Does happen the same when reflectively one knows something? Because the subject must pass from an
objective description of her epistemic status to a first-person description, as the
difference between (1) and (2) exemplifies.

First of all, let’s consider the difference between the question here addressed and the
coherentist quarrels. Some epistemologists consider that the border between external
and internal contexts also divides the space of causes from the space of reasons. But,
the integration requirement we postulate refers, as Breyer and Greco also maintain, to
the objective/subjective divide more than the external/internal one. Sosa shows to be
conscious of the coherentist objection as for example when considers it in this way:

“No belief B is fully justified because it satisfies some condition F such that beliefs
satisfying F are probably true. The believer must also be aware, at some level, that B
satisfies the condition” (Sosa (2007) p 124)

But he considers that this requirement is properly met by the exposed principles:

“Most interesting for us is the fact that Bonjour’s Generalization (of Sellar’s insight) is a
member of our family of principles of the criterion” (Sosa (2007) p 127)

Reflective knowledge, analogously to Cartesian scientia, is functionally defined:

“Scientia requires more. It is attained only through an adequate perspective on one’s
epistemic doings” (130)

And the increased quality reflective knowledge adds to the animal knowledge is
accounted by this functioning:

“Knowing full well thus requires some awareness of the status of one’s belief, some
ability to answer that one does know or that one is epistemically justified, and some
ability to defend this through the reliability of one’s relevant competence exercised in its
appropriate conditions” (Sosa (2007) p 132)

Notice that Sose judges here as sufficient symptoms of possessing reflective knowledge
to have “some awareness of the status of one’s belief, or to have “some ability to answer

---

Berneker”. Philosophy and Phenomenological Research LXXVI/1 173-184. They consider that the
question is about the ownership of beliefs, as we do.
“that one knows”, as well as to have “some ability to defend this”. Where remains here the archery analogy that exemplifies the aptness as luck avoiding? I guess that the example of Bill Tell doubting about his shot could provide a suggestive model. In the following section I will discuss the possible analogy between beliefs and acts according their metacognitive statuses.

A well-known objection to the analogy between beliefs and acts, regarding their deliberative ascent, is that one of their voluntariness.

Practical status of beliefs: Beliefs are different to acts in that beliefs are not voluntarily held but actions are necessarily chosen to be intentional acts.

Beliefs, according this principle, are intentional because their intentional content, and not because their intentional production, as acts do. A belief could be supported by a reason even though the belief were not chosen as such: it suffices for a reason to have the proper logical (or epistemological) relationship with the content belief. By contrast, an act is supported by a reason if and only if this reason provides an explanation of the choice of this particular act rather other alternative one. This different way of production would have consequences about the required consciousness for believing and act. For knowledge can be achieved sufficiently by reaching apt beliefs. Even though for reflective knowledge, it suffices a meta-apt belief, no matter if this belief was explicitly and consciously produced or not. All that it is required is a well-functioning metacompetence.

“(…) It does lead me to think of the difference between the two sorts of knowledge, the animal and the reflective, as difference of degree. The higher brutes may be credited, along with small children, with some minimal degree of perspectival, reflective knowledge, of the implicit, subconscious sort, which largely resides in hosted inference patterns”8

7 This character of ability to balance the epistemic status of one’s belief provides also an answer to the alleged non luminosity of beliefs that Williamson maintains. For, although a belief lacks of means to indicate its epistemic status, a meta-competence can do it.

Obviously, it can happen that this primitive knowledge was of a low epistemic quality. Sosa accepts it:

“In richness, explicitness, and explanatory power, that falls short of the reflective knowledge to which a human can aspire, especially someone philosophically inclined”\(^9\)

However, the relevant point is that reflective knowledge can be attributed to creatures lacking higher degrees of deliberative consciousness. Surely, things are different when someone asserts belief in a public context, for example, when he is giving forensic testimony in court. Then, the reflectively held belief amounts to be part of the act of the assertion. But, according Sosa, from the point of view of conditions to reach the status or meta-apt belief, the full consciousness is not required for belief, as surely the traditional coherenti st epistemologist claims.

We will examine this view firstly, by considering an empirical candidate to accomplish a similar function to the exposed by Sosa; secondly, we will argue that misfunctioning of this cognitive mechanism sheds light on the integration problem; thirdly, we will conclude from this example that Sosa needs a kind of involvement of the first-person point of view that is not necessarily equivalent to assertion. First-person perspective is therefore a symptom that an integrated epistemic agent is on charge of the task of knowing.

The cognitive function I am referring is one what psychologists and neurologists have dubbed as *metacognition*\(^{10}\). It is often described as a cognitive device that aims to “knowing about knowing, that is, a cognitive function to distinguish what one knows about one’s own cognitive abilities, states of knowledge, and actual performance form the cognitive abilities, states of knowledge and performance per se”\(^{11}\). The case of our example of Bill Tell’s hesitation about his shooting is relevantly a case of

\(^9\) Sosa (2003) o.c. p 129


metacognition, as “metacognitive processes are required for decision making, troubleshooting, strategy selection and performance of non-routine actions”\textsuperscript{12}.

Metacognition is probably the best candidate to exemplify in cognitive systems one of the functions of reflective knowledge. Although reflective knowledge can be characterized as a higher intellectual and conceptual process, surely it is also based on more basic cognitive mechanisms as metacognition is. And the working of these devices can help us to clarify our question of integration requirement. As a functional system or ability probably is already present in some animals other that human beings. Some studies with simians, dolphins, even rats have shown that many animals refrain them from acting when the cognitive conditions of a formerly known task become harder\textsuperscript{13}. The alleged experiments do not allow clearly to conclude that certain animals are gifted with self-consciousness, but they are sufficiently expressive to ascribe to them some degree of metacognition. These are no news for Sosa’s concept of reflective knowledge, for, as the formerly quoted observation establishes\textsuperscript{14}, “a minimal degree of perspectival, reflective knowledge” can be possessed by animals. Notice however that behaviour of refraining seems to indicate the existence of strong links between information evaluation and control of acts. The links do not amount to confuse acts and beliefs in animals (among other things because they lack intentions both in actions and in beliefs), but, however, the issue is that the control is based here in an appreciative feeling of ignorance. It does not matter here if alternative possibilities of action are considered by the animal.

Other interesting characteristic of metacognition apparently supporting the Sosa’s views is that it does not involve necessarily metarepresentation\textsuperscript{15}. Metarepresentation is a higher-order process which supposes to have reached previously advanced steps in cognitive development (children reach it at the age of three years and half). For


\textsuperscript{14} Footnote 5.

\textsuperscript{15} See Proust (2007) o.c.
metarepresentation requires open consciousness and deliberative stances. If metacognition were equivalent to metarepresentation, Sosa could legitimately argue that he is postulating a more basic metacompetence or skill not in so high tier of cognitive processing (although it is possible a full reflective stage of knowledge). But metacognition is therefore a good candidate to exemplify a skill to evaluate the own cognitive perspective without supposing the status of assertion or deliberation to act. Moreover, metacognition is drawn in structurally important functions as they are theory of mind (or simulation ability), memory retrieval, transmision of learning, executive control, etc. It amounts then to be an structural component of any cognitive task in which the epistemic quality was involved. In fact the lack of metacognitive skills is a symptom of mental disorder. Anosognosia is called this metacognitive deficit, and it is noticed in patients suffering schizophrenia, Alzheimer and others kinds of dementia. Anosognosia is an unawareness of cognitive and functional impairment. Patient with this symptom are invited to discover their deficit by indirect means, because they show denials of the deficit and a very poor insight of their cognitive status.

According the hypothesis of mostly authors on the subject, metacognition is a faculty composed of two more basic functions: monitoring the cognitive status and controlling the ulterior processing of the given information. Refraining of act is one of the possible outputs of the control mechanism (but all the same, it could be also to refrain of believing). Monitoring and control do not constitute two separate functions aiming to belief and action respectively, but two necessary aspects of any meta-competence, even though they operate in no too much explicit conscious levels. Now then, this double aspect can be considered as establishing some symmetry between belief and action in the basic level of their production: reflective knowledge requires both monitoring and control, the same as reflective action, even though it does not an explicit deliberation enters on the process.

---

Maybe one could argue against the strategy of resorting to empirical findings when the issue is in fact of an exclusive conceptual character. Maybe. I will not quarrel about the required degree of naturalistic considerations in epistemology. My point is that in spite of the most basic levels of cognitive were working, a problem of lack of integration could be addressed (and consequently, much more in higher epistemological levels). In this way, metacognition furnishes us with a frame where the integration problem can be formulated without reaching higher levels sorting out beliefs from assertions.

The integration problem is that one results when the personal level becomes the issue on question. By personal level I am not understanding here the highest level of deliberative stances, but a more constitutive tier where the overall equilibrium of the system is into focus. In this sense, metacognition is a mechanism that can accomplish its tasks only in a systemic way, that is, it works insofar as other mechanisms coherently work. The coherence required for this integration is more than a mere logical or informational coherence. By contrast, it is required an harmoniously systemic functioning in such a way that the general cognitive system is engaged in the task of knowing. The conceptual point here is that this requirement claims a first-person perspective and it is not sufficient a systemic coherence described from a third-person perspective. Metacognitions always involves a first-person perspective on the own cognitive processing. Metacoherence, integration and first-person perspective keep going or fall together.

Let’s now examine the argument against the engagement of personal levels:

(1) A personal level is relevant insofar as human autonomy is required
(2) Autonomy involves deliberation between alternative possibilities
(3) Intentional action supposes alternative possibilities
(4) Belief formation does not suppose necessarily alternative possibilities
(5) Therefore action claim a personal level but belief formation don’t.

This argument assumes that reflective knowledge is part of the belief formation process (at least of the apt belief formation process). So then, reflective knowledge as involved
just in belief formation and not in assertion, does not claim to be situated in a personal level.

I will not follow the path of controversies about the voluntariness of belief even if some objections could be addressed against (2) and (4) step in a frankfurtian style. Now then, the example of metacognition opens up other different line of rejoinder. The point is about the cognitive rightness of premise (2). Apparently, this premise considers autonomous only these systems capable of explicit, discursive, and conscious deliberation between alternative possibilities. Certainly it is not difficult to grant that conscious deliberation is sufficient for autonomy, but the question is if there can be autonomous systems in lower steps of cognitive development.

Metacognition, according the formerly exposed empirical notions, have the functions of monitoring and control the cognitive status while the organism confronts a particularly task. I guess that it is out of question if this double function is performed by an single mechanism or, by contrast, it requires two different ones. The relevant thing is that metacognition exerts the twofold function as part of a singular mechanism of cognitive performance. Now then, notice that in spite of monitoring can be considered as a more passive engagement of the organism, however the case turns out to be different for control, as it engages spontaneously and actively the overall organism in the production of a right outcome. The function of metacognition is to evaluate the ability of the organism to deal with a difficult cognitive task. It does not matter if deliberation precedes or not this function. The system works properly as far as it is able to detect the state of ignorance, that is, when it detects that the available knowledge is not sufficient. Let’s compare now this function with the alleged case of Bill Tell in the very moment of shooting against the apple above the head of his son (instead of shooting against his son). In the case (a) Tell deliberates thoroughly about the action and consciously decides that the shooting will be safe. In the case (b) Bell does not consider the question and simply shoots. He is very confident in his skills to hit the target. In both cases reflective knowledge (at least metacognition) is involved, but in the case (b) awareness of the situation does not imply necessarily an explicit discursive deliberation. Tell will be trustworthy insofar as his control system works and it be able to refrain of shooting when the accuracy is jeopardized.

Therefore, the premise (2) can be reformulated in broader terms:

(2) Autonomy involves a control function enough to refrain of following the process.
Rejecting the premise (2) means that there can be a symmetry, more than an analogy, between beliefs and acts regarding the engagement of the overall system in the performance.

My second point is that only a first-person perspective grants this personal engagement in the cognitive task. As blind sight disorder shows, a perceptual system can work properly in some level, and yet the patient suffering it could not recognize that he is seeing the object that, however, he is capable of correctly manipulating. Correspondingly, although a patient suffering from anosognosia could be described from a third-person perspective as properly working in the first level of knowledge (take, for example, reminding something), I do not understand how metacognition could be described in third-person perspective. In the case of metacognition, it happens that normal subjects reports to have a “feeling of knowing” when the system is well-working. Consider, for example, the tip of the tongue cases when, after some efforts to recall the name, one achieve to retrieve it. Then a feeling of knowing overcomes us and it indicates that that the task is accomplished.

This feeling of knowing is simply a symptom of a proper working of metacognitive skills. I am not claiming that in epistemology one have to require this feeling. This is only a particular psychological indicator, but it accounts that something is happening, that is, that the agent have a sense of ownership about her knowledge. An epistemologist worried only by the objective functioning of a faculty could argue that the the option between first or third person perspectives makes no difference. Compare however the case of an aeroplane piloted by the pilot or, by contrast, by an automatic system from a control tower. In spite of both ways could be described as functionally equivalent, however there is a significant difference between the two. The personal perspective matters. Now then, does it matter from an epistemological point of view?

My point is that first person perspective indicates that a well integrated cognitive system is working, even supposing that the task does not reach a full deliberative and conscious status. The personal level is sufficiently expressed in the open intentional action, as assertive discourse is, but this level is also required in a lot of tasks which can be performed in more implicit ways. The divide implicit/explicit is not equivalent to the divide personal/subpersonal. Personal level is required when metacoherence is at stake. Bill Tell before his dreadful experience demanding from him the maxim self-trust exemplifies this requirement of full integration for a system. Can be considered this integration as external, even valuable, from an epistemological view? I do not think
so. We must distinguish between the coherentist claim that full consciousness is required for a full justification and our view about the first person engagement as necessary to show an integrate agent. Metacoherence, in our sense, is a structural property of the personal level, and it does not implies a more Kantian approach. As its is well-known, this approach demands besides to obeying a rule, obeying also because the concept of the rule. Less-than-kantian approaches, as the mine simply requires a well integration for a sufficient agency. Epistemic agency, in this case.