# A Feeling of Evidence A Neo-Kantian Proposal for an Open-Minded Use of Intuitions

Francesco Pisano† francesco.pisano@unifi.it

### ABSTRACT

Intuitions play a relevant role in the acquisition of knowledge. Among those who believe that this is the case, some base their claim on the peculiar phenomenology of intuitions. These theorists often adopt a perceptualist and seeming-based model for their phenomenological description. Deeming intuitions as essentially private phenomena, however, seeming-based descriptions end up supporting a dogmatic view of intuitions as a source of epistemic justifications. I argue that this is because the seeming-based model is incomplete in that it does not consider some virtue-related aspects of the plasticity of intuitions in social contexts. Then, I propose a way of integrating an explanation of these aspects in it through a Neo-Kantian reinterpretation of some of the concepts involved. I will draw from the work of Christoph Sigwart on the so-called *Evidenzgefühl* ("feeling of evidence") that characterizes the phenomenology of intuitions, showing the ties between this feeling and the linguistic, communicative, and social dimension of scientific research. The broader aim is to suggest that it is possible to make an open-minded use of intuitions even when basing their epistemic relevance on their peculiar phenomenology.

### 1. Introduction

Intuitions are important tools both for philosophy and natural sciences. The current epistemological debate focuses on their justificatory power (see Climenhaga 2018). Among those who accept that intuitions play a justificatory role for beliefs, many explain their justificatory power by tying it to a distinctive

ISSN: 1972-1293

<sup>&</sup>lt;sup>†</sup> Università degli Studi di Firenze, Italy.

phenomenology of intuitions <sup>1</sup>. They claim that intuition-experiences are in some way analogous to perception-experiences and draw from this an argument for their justificatory power (see e. g. Mulligan 2003, Dickson 2007, Chudnoff 2010, Skene 2011, Koksvik 2017). However, since intuitions differ from perceptions insofar as the propositional content they convey does not seem to be empirically verifiable by other epistemic agents, this influential phenomenological description ends up defining intuitions as essentially private mental phenomena.

I argue that this description is incomplete in that it does not consider the social aspects of the factual plasticity of intuition-justified beliefs. These beliefs appear to be susceptible of being revised through the intervention of other epistemic agents. By denying the possibility of this revision (see e. g. Bealer 1996: 123-124), this influential description ends up sustaining a certain dogmatism about intuition-justified beliefs. Therefore, intuitions and insights are often deemed as unaffordable tools for research since open-mindedness is indeed a pivotal virtue in social research contexts<sup>2</sup>.

I propose to integrate the mainstream perceptualist account with a Neo-Kantian approach to the description of the feeling of certitude that characterizes the peculiar phenomenology of intuitions. I base my argument on the work of Christoph Sigwart – a Kantian, psychologistic and pragmatist logician. His pioneering contribution to the debate about emotions, feelings, and virtues in epistemology <sup>3</sup> has been mainly forgotten after the *Psychologismusstreit* in the German culture at the turn of the nineteenth and twentieth century (see Kusch 1995, 2020) ended up in the presumed defeat of psychologism.

In his *Logik*, Sigwart discusses how feelings give information on the objective epistemic situation a subject is in. He takes their epistemic value

<sup>&</sup>lt;sup>1</sup> I will not deal here with the objections concerning the very possibility of a cognitive phenomenology (see Bayne and Montague 2016: 1-34). For a convincing defence of the possibility of experiencing cognitive qualia (and hence, of the possibility of cognitive phenomenology) see Shields 2016. For the sake of argument, however, I will take this possibility for granted.

<sup>&</sup>lt;sup>2</sup> This is the classical objection that Kolakowski 1975 poses to Husserlian phenomenology; see, more recently Fairweather and Montemayor, 2014: 119).

<sup>&</sup>lt;sup>3</sup> Heinrich Maier's *Psychologie des emotionalen Denkens* (1908) is one of the first philosophical investigations about the epistemic role and value of emotions. Maier was also the editor of the posthumous editions of Sigwart's most important work, *Logik*, as well as his main pupil. Sigwart's *Logik* provides in its own right important contributions to this research.

seriously to the extent that he believes that the emotional phenomenology of a certain thought says something about the content and the structure of the thought itself. He does the same with the epistemic value of virtues since he believes that logic consists in defining how thought can be virtuous in the search for truth, and thus in presenting a normative methodology for scientific research (see Dilthey 1974: 421-425 and, for a more general introduction to Sigwart's thought, Peckhaus 2008).

First, I will elucidate the mainstream perceptualist description and explain why it is incomplete and what are the consequence of its incompleteness. Then, I will present Sigwart's approach to the *Evidenzgefühl* as a key aspect of the phenomenology of intuitions. I will elaborate on the advantages of integrating Sigwart's observations in the perceptualist model and on how this integration may occur. I will conclude by addressing some issues that may follow from this integration. My broader aim is to suggest that intuitions can be indeed used in an open-minded way in epistemic social contexts, even if their justificatory power appears tied to their peculiar phenomenology.

## 2. The seeming-based model

Intuition-theorists who take the phenomenology of intuitions seriously usually liken the experience of intuiting to that of seeing. They claim that intuitions convey a propositional content just like vision conveys a perceptual content (see again Mulligan 2003 and the examples used by Chudnoff 2011 to present his perceptualist view of intuitions). Both these experiences grant some justification to the propositional content (p) they convey because they also convey that it scems like it is the case that p. This seeming is often described as a simple, immediate, and direct confirmation that  $p^4$ .

This is a perceptualist account of the phenomenology of intuitions insofar as it is based on an analogy between intuitions and perceptions: intuitions are *intellectual* seemings, while perceptions are *sensory* seemings. This analogy explains the justificatory power of intuitions in that it is analogous to that of perceptions (see Bengson 2015). The seeming-based model (SBM)

<sup>&</sup>lt;sup>4</sup> It is worth quoting here a full excerpt from Wittgenstein 1969, 202: «Giving grounds, however, justifying the evidence, comes to an end; but the end is not certain propositions striking us immediately as true, i.e., it is not a kind of *seeing* on our part; it is our *acting*, which lies at the bottom of the language-game». I will argue for a quite similar claim, but without rejecting the idea that this «acting» is incompatible with a peculiarly intuitive phenomenology.

for the phenomenological description of intuitions claims, in short, that intuitions are intellectual perceptions or something like intellectual perceptions. Hence, it claims that they can justify beliefs as perceptions do, but without the sensory interaction that causes perceptions. Therefore, they are especially important in (but not exclusive to) philosophical matters that usually deal with the abstract and with the non-perceptible.

The crossing point between the phenomenological description of intuitions and their epistemological function should be considered carefully. Ernest Sosa claimed that, since intuitions are analogous to perceptions while doing without sensory causes, «intuition is distinctive in requiring nothing concrete except perhaps for S's understanding of p» (Sosa 1998: 264). He held this claim in other, more recent contributions (see e. g. Sosa 2014: 42). This is also a definition of what is distinctive in intuitions as mental states since epistemic agents feel immediately compelled to justify p solely on the base of this understanding. I will refer to this distinctive phenomenological property of intuitions as their *immediacy*. The attribution of immediacy to intuitive experiences is a central feature of SBM and is shared by many self-proclaimed "dogmatic" versions of it (see Tucker 2013: 21-22).

Within the framework of SBM, it is usually assumed that the immediacy of intuitions implies some sort of «primitive certainty» regarding the propositional content they justify, such that intuitions cannot «contain any contents that could be confirmed or disconfirmed» (Mulligan 2003: 44). Leaving aside the issue about the way intuitions "contain" or convey the propositional contents they justify, it is important to observe here that, according to SBM, beliefs based on intuitions are «tacit» (see e. g. Dörfler and Ackermann, 2012: 550; Brock 2015) in that their justification ends up being independent from language communication. In other words, according to SBM the immediacy of intuitions implies their *privacy*, i. e. that they are private, noncommunicative experiences<sup>6</sup>.

Privacy is a tricky feature of intuitions, since it has a phenomenological character (in that one may feel that she cannot communicate what justifies her in

<sup>&</sup>lt;sup>5</sup> I will speak here of "epistemic agents" rather than of "subjects" in order to highlight the dynamicity of knowledge-processes, which I think is a crucial factor to consider when dealing with intuitions

<sup>&</sup>lt;sup>6</sup> The notion of privacy as a lack of communicative expression (and, inversely, of publicity as an essentially communicative dimension) draws from Wittgenstein's argument against the possibility of a private language (Stewart and Wrisley 2019).

believing that p is true) while also saying something about the aetiology of intuitions (in that private intuitions appear causally independent from contingent factors such as sensory interactions and communication from other agents). For the sake of argument, I will focus on its etiological character, insofar as it is (or it is not) inferable from phenomenological immediacy.

Some troubling consequences follow from accepting the implication between immediacy and privacy as a necessary one. The SBM-based intuitiontheorist is probably interested in defending the idea that intuitions can play a relevant role in epistemic contexts, since she maintains that their phenomenology should be taken seriously, so that intuition could not be reduced to other mental states (as e. g. Gopnik and Schwitzgebel 1998 and Devitt 2006: 491 claim). However, in defining privacy as a feature of intuition experiences, she makes intuitions vulnerable to a methodological and ethical argument against the epistemic relevance of intuitions, at least in social contexts. For instance, Metzinger 2004 claims that, given that the context of scientific research is inherently social, the use of private intuitions as evidence is epistemically vicious. According to this objection, the justification of an intuition-justified belief, being independent from language communication, would be substantially invulnerable to observations, objections and revision coming from other epistemic agents. The distinctive epistemic vice of intuitionjustified beliefs would then be *dogmatism*, as opposed to the *open-mindedness*<sup>7</sup> that is required or generally welcome in scientific research.

Indeed, intuitions would be dogmatic to the extent that they would be private. Luckily, however, the implication between immediacy and privacy is not a necessary one. Intuition-justified beliefs do appear in many cases as plastic, i. e. revisable based on other epistemic agents' objections<sup>8</sup>. This shows that their justification is at least not completely private. Their plasticity is the factual condition of their possible virtuous – and, more specifically, open-minded – use within the social framework of scientific research.

<sup>&</sup>lt;sup>7</sup> Riggs 2010 defines open-mindedness as one's disposition to «acknowledge the possibility that, anytime one believes something, one could be wrong» (180).

<sup>&</sup>lt;sup>8</sup> For the sake of argument, I will only consider cases of intuition-plasticity that are clearly related to a social dimension

Given the trickiness of defining privacy as a feature of intuitions and the well-known difficulties in the phenomenological description of immediacy<sup>9</sup>, the influential SBM lacks, to my knowledge, a convincing and rigorous thesis on how to reconcile the phenomenological immediacy of intuitions with their factual plasticity. This thesis should first take into deeper consideration the meaning of "immediacy". A reinterpretation of the concept of immediacy could then be able to take into account the plasticity of intuitions, thus recognizing the possibility of their open-minded use.

Before delving into this reinterpretation, here are some examples to show what I mean when speaking of the factual plasticity of intuitions. Since intuitions are particularly important when dealing with non-perceptible matters, I am first going to discuss a case of intuition-justified belief in (elementary) logic. However, since their epistemic relevance is not limited to completely abstract matters, I am also going to consider two more concrete examples: one about probability theory and another about brains and personal identity.

Let us consider a proposition such as: "If not-not p, then p"  $(p_1)$ . From an epistemic point of view,  $p_1$  would most likely be considered an intuitively justified belief<sup>10</sup>. Suppose now that this belief is held by an agent on the base of an intuitive justification. This subject then reads about Dummett's claim that alternative logics formalize alternative conceptions of truth based on extralogical considerations that sometimes make a logic conception preferable to another (see Dummett 1978a), and then about his argument concerning the preferability of an intuitionistic logic in mathematical reasoning (see Dummett 1978b). She finds Dummett's proposal convincing. Now, would she still find  $p_1$  intuitively convincing as is? Probably not. She would at least try to pose some constraints on the proposition, such as "Within classical logics, which isn't even the most natural or realist logic one could think of, it is the case that if non-not

<sup>&</sup>lt;sup>9</sup> The main problem about a phenomenological description of immediacy is that the description in itself, being a theoretical discourse, needs to distinguish the terms involved in the "immediate" relation, thus presupposing a third, mediating element which is the unity or the synthetic relation between what the two distinct elements. The externality of immediacy from the domain of theoretical knowledge and discourse is the crux of Husserlian or transcendental phenomenology (see e. g. Sprenger 2019). Here I will briefly point out that this problem was indeed considered by Neo-Kantians (such as Sigwart) too.

<sup>&</sup>lt;sup>10</sup> I draw this and some other examples from an encyclopedia voice (Pust 2019) in an effort to present noncontroversial cases. It is worth highlighting that my aim here is not to discuss the specific content of intuitions, but rather the relation between their phenomenology and their epistemic use.

p, then p". The proposition she believes is now restricted, since the intuition that justified it in the first instance has been revised and enriched by taking into account other relevant possibilities.

Consider now the well-known medical test paradox, which is an emblematic instance of the base rate fallacy in the epistemic use of intuitions. Consider a medical doctor who believes that "The probability of having a certain disease after that a certain relevant test resulted as positive is n"  $(p_2)$ . She does so because, based on the test results, it seems to her that it is the case that  $p_2$ . It has been experimentally proven, taking into statistical consideration the beliefs of many doctors, that the objective accuracy of this probabilistic assertion substantially increases after learning about the Bayesian concept of probability (see Kahneman and Tversky 1985, Goodman 1999 and Moreira et al. 2008). This also shows that the doctors' intuitions of probability are indeed plastic since they are subject to being improved after learning about something new.

Consider, as a last example of intuition-plasticity, a proposition such as "A person would survive having their brain transplanted into a new body"  $(p_3)$ . If one were to agree with Pust 2019 that this is an intuitively justified belief, one should also recognize that the justifying intuition would be somewhat context-dependent, in that it would imply a culture-specific concept of "person". This context-dependency involves the plasticity of this kind of intuitions, since they can be revised in light of new contextual beliefs about the meaning of the terms involved.

SBM lacks a rigorous thesis about these cases and similar ones, since a rigorous thesis about intuition-plasticity should be able not only to take into account the aspect of fallibilism that is factually implied in the plasticity of intuitions, but also the aspect of improvement and enrichment whose possibility is implied in this same plasticity. This aspect should be integrated in the SBM phenomenological description of intuitions if one would want to defeat not only the epistemological argument that rejects intuitions based on their presumed infallibility, but also the ethical argument that rejects them based on their presumed dogmatism – that is, if one wants to welcome intuitions in a virtue-based epistemology.

Sure enough, even fallibist intuitions could be used dogmatically if one is convinced that they are essentially private and self-sufficient experiences in that they are isolated from language communication. Even if the agent who experiences an intuition is convinced that she could be wrong about the justified belief, she could reject the observations of any other epistemic agent based on

the differences between their private experiences simply because she wants to hold on tight to "her own" truth.

One influential example of a SBM theory of intuition-plasticity is presented, for instance, by Bealer 2000. Bealer claims that intuitions do not need to be infallible to be legitimately used as evidence in epistemic contexts. However, he only hints at the «truth-absorption» which epistemic agents enjoy in social contexts and at the constructive revision of intuition-justified beliefs that becomes possible on its basis (19-20). While it is possible to find Bealer's general argument about fallibilism and reliabilism quite convincing, the effort of going through the revision of one's own intuitions requires an ethical motivation from the part of the agent that Bealer does not touch upon. In other words, the epistemic agent must be *motivated* to absorb new truths about her own intuitions and to open-mindedly revise these intuitions on the basis of the new epistemic acquisitions. Thus, SBM should attempt to integrate reliabilism with a convincing story about this motivation <sup>11</sup>. I argue, drawing from Sigwart's suggestions, that the source of this motivation should be searched in the *feeling* that characterizes the experience of intuition.

# 3. Sigwart's feeling of evidence and its relevance for a theory of intuitions

Sigwart defines what it feels like to experience an intuition as an experience characterized by a *feeling of evidence* (see e. g. Sigwart 1904: 326). It is important to acknowledge the difference between what he calls "intuition" (*Anschauung*) in a Kantian sense (that is, in short, the a priori structure of sensible knowledge) from what "intuition" means in the contemporary debate. There are two difference criteria between the two meanings: an epistemological one and a phenomenological one. The relevant epistemological character for what "intuition" means in the contemporary debate is its justificatory power. The relevant phenomenological character is its immediacy. Within SBM, the phenomenon thus circumscribed is related to sensible knowledge and perception only as an analogous. Hence, it would be more precise to say that Sigwart defines the experience of acquiring an immediate justification (or: the

<sup>&</sup>lt;sup>11</sup> Zagzebski (1996: 299-311) highlighted some shortcomings of classical reliabilism in relation to the issues of epistemological virtue and social responsibility. However, she did not focus on intuitions and their distinctive phenomenology.

experience of immediately justifying a belief) as characterized by a feeling of evidence<sup>12</sup>.

His arguments about the nature of the *Evidenzgefühl* are strikingly similar to the arguments a perceptualist intuition-theorist interested in defending the possibility of open-minded intuitive justifications could present today. This is because one of the main arguments of the antipsychologistic front during the *Psychologismusstreit* was that the privacy of truth-related feelings would be an impairment to the objectivity of truth (see Kusch 1995: 54-57). Analogously, contemporary critics of SBM see in the privacy of intuitions an obstacle to the public and verifiable character they claim should characterize truth. A possible counterargument, applicable to both cases, can be formulated starting from a reinterpretation of the concept of immediacy that ties it with an intersubjective and social dimension, rather than with private experience. More specifically, Sigwart argues that the feeling of evidence has an intersubjective meaning, being tied to the social context the intuiting epistemic agent finds herself into.

Being a (Neo-)Kantian logician, Sigwart emphasizes how, in principle, any proposition must be tied to an actual statement within which it is actually constructed through the synthetic activity of judging - which he deems equivalent to thinking (see Sigwart 1904: 27). The activity of judging is carried out by a living agent who builds her knowledge by judging about facts and keeping faith to these judgments, thus developing and constantly enriching a network of beliefs and pieces of knowledge in which past knowledge (sedimented in memory and especially in linguistic habits) is the base upon which new experience becomes new knowledge (see e. g. Sigwart 1904, 249-250). The network in itself is made by linguistic commitments since experience becomes knowledge through being assigned a certain meaning, i. e. a certain position in a network of meanings. This network can be considered as the dynamic structure of the perspective from which the agent takes an epistemic hold of the world, continually understanding new experiences through already acquired meanings and by introducing them in a framework of linguistic relations. In short, experience becomes knowledge when it is determined and expressed by relations. Hence, knowledge has a relational (i. e., coherentist)

<sup>&</sup>lt;sup>12</sup> Even when presenting Sigwart's theoretical framework I will speak of "intuitions" meaning this kind of immediate justification, without taking into account his (Kantian) use of "Anschauung".

structure, in that everything an epistemic agent knows is mediated by the relations in light of which she knows it.

The link between this knowledge-network and the judging activity of epistemic agents expresses itself in the implication between the factuality of this activity – characterized by qualitative features, and especially by feelings and emotions – and the construction of knowledge. This tie expresses itself in that feelings and emotions do play a role in the construction of knowledge. In Sigwart's framework, intuitions that p have a justificatory power exactly because the corresponding feeling of evidence immediately compels epistemic agents that experience them to justify the belief that p. Hence, immediacy (as SBM defines it) is preserved, but the experience of immediacy is specified through a certain tie between the feeling of evidence and each agent's network of knowledge.

This feeling is a feeling about something. But since this relation of aboutness is immediate, it works somewhat outside of the relational and intramediated domain of knowledge. The "evidence" the feeling refers to is something simple, not mediated by any relation. This "something simple" is what Sigwart calls «being» or «reality» (Sigwart 1904: 272). It is external to the domain of knowledge because it *is* the very reality knowledge refers to and, at the same time, the reality in which the epistemic agent performs her logical activity – the reality within which the agent builds her knowledge-network. Being no transcendental idealist <sup>13</sup>, Sigwart understands this reality as the concrete, factual reality of our shared lives. It is the reality of culturally, socially, and pragmatically committed living agents who produce knowledge together – not something produced by (or in any way grounded on) the transcendental activity of a private knowledge-subject.

The feeling of evidence then becomes the feeling of being situated within the sphere of factual reality as an historically and culturally determined agent who produces knowledge through social commitments. These commitments are linguistic in the sense that they deal with the way in which each agent commits to actually use words when thinking and communicating. Thus,

<sup>&</sup>lt;sup>13</sup> It is possible to sketch the story of nineteenth-century Kantianism and Neo-Kantianism by following two axes. The first is the well-known axis of transcendental idealism, which canonically goes from Kant to Husserl through German classical philosophy. The second is defined by lesser-known empiricist, realist and "psychologistic" readings of Kant's critical philosophy. This last one goes from Herbart, Fries and Beneke through Wundt, Helmholtz and Sigwart up until Dilthey, Cohen and even Carnap. See e. g. Dämbock 2017.

knowledge relations are linguistic relations (and the network of linguistic relations epistemic agents share together is a network of linguistic habits) in the sense that they regulate the linguistic behaviour of agents towards one another (see Sigwart 1904: 246). Linguistic commitments could be reduced to beliefs about the way one should use words. These beliefs are mostly held unconsciously, as habits. These habits are unconsciously sedimented in memory in the sense that agents are used to linguistically behave in a certain way, thus sharing some commitments concerning aspects of their respective worldviews. This Neo-Kantian perspective helps severe the ties between immediacy and privacy. The agent who feels immediately compelled to justify p is not a private subject, but indeed an intersubjectively situated and dynamic agent. The agent is dynamic because her intuitions are essentially about something new something that does not yet pertain to already acquired knowledge, and their justificatory power essentially works by integrating a new experience into a network of linguistic commitments. Consequently, this network ends up being dynamically enriched. The agent is intersubjectively situated insofar as her knowledge is shared through language by a community of epistemic agents.

In light of Sigwart's proposal and drawing from the more general Kantian-Helmholtzian debate on unconscious inferences (see Meyering 1989), intuitions can now be redefined as experiences that feel immediate and that can confer justifications to certain beliefs insofar as they are caused by the unconscious reaching of a certain configuration between the intuiting agent's network of linguistic commitments in a given situation and a new experience. These commitments are involved in intuitions as moments of a finite knowledgenetwork situated in factual nature. The relevant configuration is reached trough an unconscious inference that starts from given linguistic commitments. This configuration is such that, in light of these commitments, the new experience cannot but be defined in a certain way.

In other words: intuitive justifications justify p based on the fact that p is *ex hypothesi* necessary, where the contingent hypothesis is the given situatedness of the agent and of her knowledge-network. The experience of integrating a new intuition-justified piece of knowledge into this framework is experienced as a sudden, discontinuous jump from a belief to another, while

actually referring to an unconscious, plastic transformation of a whole network of meanings (see Sigwart 1904: 432)<sup>14</sup>.

The tie between phenomenological immediacy and privacy is then cut apart through the introduction of an unconscious but intersubjectively situated aspect of their aetiology. Immediacy becomes the phenomenological mark of the experience of looking at one's own knowledge-network *from the outside*, as a fact that is both plastic and conditioned by its contingency. It can actually *motivate* the enrichment of this plastic network, as long as the epistemic agent consciously recognizes the contingent situatedness of her knowledge-network as something that is open and sensitive to new experiences.

Here is an example of how this motivation could work. Consider a proposition like: "squares have four right angles" (p<sub>4</sub>). An epistemic agent holds this belief as an intuitively justified belief. She does so on the basis of the meaning of "square". Given a certain meaning of "square", it is necessary that p<sub>4</sub>. This meaning, however, is not necessary in itself: it is a given, a contingent hypothesis. If the agent has adopted the proposed virtue-friendly SBM understanding of some of the concepts involved in describing her own intuitive experiences, she is aware of this contingent aspect of her own experience of immediacy. This awareness from the part of the epistemic agent raises a question: what if the meaning of "square" could be defined differently? When the agent learns from other agents that it is possible to imagine regular quadrilaterals in non-Euclidean spaces, she is already motivated to consider this possibility not as something independent from the intuition that justifies p<sub>4</sub>, but rather as something that concerns it in that it can be integrated in the meaning of "square". She is motivated to make p<sub>4</sub> available to revision and enrichment. Learning about non-Euclidean squares, she could end up believing in a proposition like: "squares (in Euclidean spaces) have four right angles" (p<sub>5</sub>).

The belief that p<sub>5</sub> is richer than the belief that p<sub>4</sub> insofar as it takes into account a new possibility concerning squares (namely, the possibility of non-Euclidean squares). More precisely, then, it is the *meaning* of "square" that

<sup>&</sup>lt;sup>14</sup> This begs the question if Sigwart is in fact a forerunner of Quine's well-known holistic approach to knowledge. This may be possible, since Sigwart is deeply involved in the prehistory of analytic philosophy (see, e. g., Heis 2012). For the sake of this paper, I will not deal with this historiografical issue. An investigation of Sigwart's and Quine's ideas about the connection between a sentence (or a judgment, in Sigwartian and Kantian terms) and the experience of its verification would be key, however, in determining in which aspects their respective holistic approaches do agree, and in which aspects they do not.

ends up actually being enriched in that it is now more defined and comprehensive, since now it also encompasses a criterion for distinguishing which properties of regular quadrilaterals hold in non-Euclidean spaces (e. g. the bisection of diagonals in hyperbolic geometry) and which properties depend instead on the Euclidean character of the relevant space (e. g. the 1:  $\sqrt{2}$  ratio between sides and diagonals), thus only holding for Euclidean squares.

This kind of enrichment happens commonly in pedagogy and research-related contexts (see e. g. Liljedhal 2004). Granted, it is not an automatic consequence of the proposed reinterpretation of the link between the phenomenology and the aetiology of intuitions. This reinterpretation only provides a conceptual framework that epistemic agents can rely upon to help themselves and other agents being motivated towards and open-minded use of intuitions. This is the sense in which my proposal complements SBM. However, the active pursuit of richer intuitions depends first and foremost on the agent's will to be epistemically virtuous.

## 4. The open-minded use of intuitions

To favour a reliable and open-minded epistemic use of intuitions within SBM it is useful to highlight that intuitions work as evidence not only because they are experiences of immediate confirmation (as is customary), but also because they are experiences of radical novelty. Intuitions introduce something new within the domain of knowledge because their immediacy is both a confirmation of the *hypothetical* or contingent *necessity* of certain propositions and the mark of the *contingency* of this necessity – that is, the mark of a simplicity that also poses a plastic limit to the enrichment of knowledge.

When speaking of open-mindedness about intuitions, I refer to a certain disposition of the will towards this enrichment – and, more specifically, to a willingness to revise the relevant linguistic commitments implied in each intuition, no matter how certain and evident intuition feels as an experience, once social situations of intellectual conflict, opposition, challenge, or argument arise. This is a communicative and social virtue insofar as it concerns the way epistemic agents use the linguistic meanings they share through language communication.

Here I focused on the possibility of revising one's own intuitions in light of what one learns from other agents. But the social use of intuitions also concerns the possibility of challenging another agent's intuitions. As Baehr 2011 and Kwong 2016 show, this active aspect of open-mindedness is essential to maintaining its truth-conduciveness both in hospitable and inhospitable epistemic contexts. Hence, a more complete definition of open-mindedness in intuitions should be articulated as follows: it is both a disposition to actively challenge the other agent's linguistic presuppositions, which are implicit in their claim to intuitive justification concerning certain beliefs, and a practice of self-criticism about the linguistic commitments that are implicit in one's own linguistic expressions of intuition-justified beliefs.

The idea of a challenge between intuitions calls into play an issue concerning possible independent, public criteria through which these challenges could be settled. Leaving aside some thorny issues concerning the role of new experiences and social institutions in this settling process, it is worth asking for a clarification about how a theoretical framework could at least elicit or facilitate epistemically virtuous practices concerning intuition. First, it provides agents with a way to revise the very meaning they confer to the feelings they live through when experiencing these sudden realizations. Then, it also allows epistemic agents to undertake a more general reflection about the limits and possibilities provided by one's own linguistic habits in the search for truth—thus, not only rehabilitating the epistemic function of intuitions, but also posing some challenges about the very epistemological theory one intends to bring intuitions into and about the place that intuitions should or could have within epistemology.

Since philosophical critique is a well-known Kantian invention, it is of no surprise that Kantian traditions – like the "empirical" (Neo-)Kantianism that Sigwart represents – can provide tools to not only sharpen the meaning of certain concepts within a certain epistemological framework, but also to highlight some general and sometimes problematic aspects of the framework in itself (like, for instance, a certain disregard within SBM about the social and construction-related aspects of knowledge).

SBM is, in the most general terms, a theory of what kind of mental states intuitions are. The proposal I draw from Sigwart's suggestion concerns what causes intuitions and how this causal tie expresses itself in their peculiar phenomenology. So, they can be fully complementary. Moreover, their integration is desirable, from the point of view of a virtue-based social epistemology, since it motivates a certain open-mindedness concerning the use of intuitions and their epistemological role.

### 5. Some critical remarks

I will now briefly present some issues that may follow from my proposal and some clarifications about them. A first issue concerns what I mean by "necessity" when I say that intuitions justify beliefs in that they define their propositional content as *ex hypothesi* necessary. A second issue concerns the sense in which intuitions should recruit – albeit unconsciously – the entirety of an agent's knowledge-network and the sense in which some beliefs and linguistic commitments are more relevant than others. A third issue concerns the complementarity of my proposal with SBM and its relationship with other attempted integrations or objections to SBM, and especially with similar objections posed by experimental philosophy. Lastly, I will mention two risks that may result as direct negative counterparts of the ethical and methodological advantages coming from the proposed explanation about the revisability of intuitions. These issues will not be solved here. Nevertheless, it is worth considering them as indicators of the possible future developments of this research.

Within Sigwart's model, all intuitions are in a certain sense modal intuitions, since intuitions justify a belief only as long as they present a reason for the *impossibility* of thinking otherwise within the subject given knowledgenetwork. It is worth noting that Sigwart is not tied to the use of a possible-world semantics for modal logic. Rather, he is inclined towards a stoic conception of logical modalities – that is, to a conception that is tied first and foremost to time and occasion, rather than with possible states of affairs (see White 1980). Hence, Sigwart means that an intuition justifies the belief that p insofar as it implies that every agent that should find herself in a given cognitive situation could not be thinking otherwise, rather than implying the belief that p is true in every possible world.

The second issue concerns the relevance of beliefs involved in intuitions. This kind of problem tends to follow from holistic accounts of the relations among beliefs. It is clear that  $p_1, p_2, p_3, p_4$  and  $p_5$  do not depend on my belief that "cow milk is white", since it seems I could have the same intuition-justified beliefs even if I were to believe that "cow milk is not white". Coherently, I claimed that intuitions do not recruit all my beliefs *qua* beliefs, but rather as part of a finite, situated and dynamic network of beliefs and pieces of knowledge. Hence, the only relevant background belief that intuitions in general should actually recruit, according to my proposal, is the belief that "I am a situated".

subject that holds a certain finite but plastic network of interconnected linguistic commitments or beliefs concerning the meaning of words". Every single intuition should then call into play certain specifically relevant beliefs concerning the meanings involved in the proposition it justifies. Here the problem of relevance resurfaces, since there is no clear limit about what is relevant to the meaning of a word (this meaning being explained through other words and so on, potentially ad infinitum). Quine argued that simplicity and economy in defining relevant background beliefs help justify theories in view of their pragmatic use (Quine 1964: 16-20). Since simplicity is also a feeling, perhaps a phenomenological discussion of the relations between immediacy and simplicity could end up presenting intuition-justified beliefs as beliefs justified by a particularly "simple" and pragmatic relation with some relevant background beliefs while maintaining an unconscious tie with the knowledge-network qua network. This would help differentiating them from other context-dependent beliefs. Moreover, this pragmatic solution would not be alien to the pragmatist spirit of Sigwart's suggestions (see Eschbach 2000).

Concerning the relation between this Neo-Kantian proposal and experimental philosophy's objections to SBM, it must indeed be noted that the latter already highlighted the danger of dogmatism in SBM (see Sosa 2007). My proposal, however, focused on the rehabilitation of the epistemic function of intuition, rather than on its refusal. This goes against experimentalist accounts and, more generally, against naturalist accounts (see e. g. Kornblith 2002), in that it suggests that intuitions can also work as experiments – at least when dealing with linguistic and communicative habits. People's concepts and linguistic habits about knowledge, to follow Kornblith's (2002, 9-10) example, are indeed an aspect of the nature of knowledge as a human and social fact, and as such can be used fruitfully within experimental processes.

Lastly, I will mention two main risks ensuing from my proposal. The first one is the risk of over-intellectualization. My argument showed that it is indeed possible to understand and use the feeling of evidence in an open-minded sense. However, it is also possible to understand and use it in other ways. Therefore, the aspiring open-minded agent needs to exercise a conscious intellectual effort in understanding and using her own intuitive experiences in scientific contexts. She needs to be aware of the contingency of her own intuitions on the basis of a certain interpretation of the meaning of her own feeling of evidence. This appears to deny naïve epistemic agents – e. g. children – the possibility of an open-minded use of their intuitive experiences. Notice

that this would not deny the possibility of intuitive experiences for these naïve agents. It would only imply that naïve agents cannot use intuitions in an open-minded and science-friendly way. To a certain extent, this is a truism since scientists are indeed expected to be non-naïve epistemic agents. The second risk comes from the fragility and manipulability that appears to affect intuitions once their plasticity is aetiologically tied to language communication and to sociality in general. For instance, one could imagine socially bad contexts capable of conditioning an agent's intuitions in some undesired or vicious way.

However, my main point about both these risks is that they can and should be addressed through relevant pedagogical and political actions, rather than through philosophical theory. Hence, it is preferrable to accept them and try to deal with them by means rather than attempting to shelter intuitions from them through philosophical reflection – that is, if this shelter is found by isolating intuitions beforehand from the dangers (and the opportunities) implied in the social dimension of knowledge.

### 6. Conclusions

The influential seeming-based model for the phenomenological description of intuitions does not account rigorously for the possibility of an open-minded use of intuitions. A suggestion to integrate it comes from the often-unremembered work of Christoph Sigwart, who shows that an immediate experience is not necessarily private and that, more generally, an emphasis on the relation between knowledge and sociocultural construction could help epistemology get in tune with some virtue-related problems. Albeit perhaps incomplete, the integration to SBM that is proposed here can be supported both by theoretical arguments (e. g. Brown 2013 shows that the immediacy of intuitions does not imply its isolation from language communication) and by neuropsychological investigations (e. g. McCrea 2010 shows that the neurocognitive functions related to language are deeply related with the neurocognitive basis of intuition experiences).

I would like to conclude by suggesting that the application of Kantian and phenomenological tools on contemporary epistemological problems can still open a fruitful horizon for research, intuitions being only an example of the many issues touched upon by the tradition of critical philosophy in many original, rigorous, and often neglected ways.

### REFERENCES

- Baehr, J. (2011). The Structure of Open-mindedness. *Canadian Journal of Philosophy*, 41, 2, pp. 191-213.
- Bayne, T. & Montague, M. (2016). Cognitive phenomenology: an introduction. In Bayne, T. & Montague, M. (eds.), *Cognitive Phenomenology* (pp. 1-34). Oxford University Press.
- Bealer, G. (1996). A priori intuitions and the scope of philosophy. *Philosophical Studies*, 81, pp. 121-142.
- Bealer, G. (2000). A Theory of the A Priori. Pacific Philosophical Quarterly, 81, 1, pp. 1-30.
- Bengson, J. (2015). The Intellectual Given. Mind, 124, 495, pp. 707-760.
- Brock, R. (2015). Intuition and insight: two concepts that illuminate the tacit in science education. *Studies in Science Education*, 51, 2, pp. 1-41.
- Brown, J. (2013). Immediate Justification, Perception, and Intuition. In C. Tucker (ed.), Seemings and Justification. New essays on dogmatism and phenomenal conservatism (pp. 71-88). Oxford University Press.
- Chudnoff, E. (2010). The nature of intuitive justification. *Philosophical Studies*, 153, pp. 313-333.
- Chudnoff, E. (2011). What intuitions are like. *Philosophy and Phenomenological Research*, 82, 3, pp. 625-654.
- Climenhaga, N. (2018). Intuitions are Used as Evidence in Philosophy. *Mind*, 127, 505, pp. 69-104.
- Dämbock, C. (2017). Deutscher Empirismus. Studien zur Philosophie im deutschsprachigen Raum 1830-1930. Springer.
- Devitt, M. (2006). Intuitions in Linguistics. *British Journal for the Philosophy of Science*, 57, 3, pp. 481-513.
- Dickson, M. (2007). Intuition in Metaphysics: Seeming Is Believing? *Philosophical Topics*, 35, 1/2, pp. 43-65.
- Dilthey, W. (1974). Rezension von Sigwarts "Logik". In U. Hermann (ed.), Zur Geistesgeschichte des 19. Jahrhunderts. Aus "Westermanns Monatsheften": Literaturbriefe, Berichte zur Kunstgeschichte, verstreute Rezensionen 1867 1884 (Gesammelte Schriften XVII)(pp. 421-425). Vandenhoeck & Ruprecht.
- Dörfler, V. & Ackermann, F. (2012). Understanding Intuition: The case for two forms of intuition. *Management Learning*, 43, 5, pp. 545-564.

- Dummett, D. (1978a). The Justification of Deduction. In M. Dummett, *Truth and other Enigmas*(pp. 290-318). Harvard University Press.
- Dummett, D. (1978b). The Philosophical Basis of Intuitionistic Logic. In M. Dummett, *Truth and other Enigmas* (pp. 215-247). Harvard University Press.
- Eschbach, A. (2000). Sigwart und die Wurzeln des Pragmatismus. Kodikas, 3-4, pp. 179-180.
- Fairweather, A. & Montemayor C. (2014). Epistemic dexterity: a Ramseyan account of agent-based knowledge. In A. Fairweather, O. Flanagan (eds.), *Naturalizing Epistemic Virtue* (pp. 118-142). Cambridge University Press.
- Goodman, S. N. (1999). Towards evidence-based medical statistics. 2: The Bayes Factor. *Annals of Internal Medicine*, 130, 12, pp. 1005-1013.
- Gopnik, A., Schwitzgebel, E. (1998). Whose Concepts are they, Anyway? The Role of Philosophical Intuition in Empirical Psychology. In DePaul, M. R., Ramsey, W. M. (eds.), Rethinking Intuition: The Psychology of Intuition and Its Role in Philosophical Inquiry(pp. 75-92). Rowman & Littlefield.
- Heis, J. (2012). Attempts to rethink logic. In Wood, A. W. & Hahn, S. S. (eds.), The Cambridge History of Philosophy in the Nineteenth Century (1790–1870) (pp. 95-132). Cambridge University Press.
- Kahneman, D & Tversky, A. (1985). Evidential impact of base rates. In D. Kahneman, P. Slovic & A. Tversky (eds.), Judgment under uncertainty: Heuristics and biases (pp. 153-160). Cambridge University Press.
- Kolakowski, L. (1975). *Husserl and the Search for Certitude*. Yale University Press.
- Kornblith, H. (2002). Knowledge and its Place in Nature. Oxford University Press.
- Kusch, M. (1995). Psychologism. The Sociology of Philosophical Knowledge. Taylor & Francis.
- Kwong, J. M. C. (2016). Open-mindedness as Engagement. The Southern Journal of Philosophy, 54, 1, pp. 70-86.
- Liljedhal, P. G. (2004). *The Aha! Experience. Mathematical contexts and pedagogical implications.* Simon Fraser University.
- Maier, H. (1908). Psychologie des emotionalen Denkens. Mohr.
- McCrea, S. (2010). Intuition, insight, and the right hemisphere: Emergence of higher sociocognitive functions. *Psychology Research and Behavior Management*, 3, pp. 1-39.

- Metzinger, T. (2004). The Subjectivity of Subjective Experience: A Representationalist Analysis of the First-Person Perspective. *Networks*, 3–4, pp. 285-306.
- Meyering, C. T. (1989). Helmholtz's Theory of Unconscious Inferences. In C. T. Meyering, Historical Roots of Cognitive Science. The Rise of a Cognitive Theory of Perception from Antiquity to the Nineteenth Century (pp. 181-208). Springer.
- Moreira, J. & al. (2008). Bayesian clinical reasoning: does intuitive estimation of likelihood ratios on an ordinal scale outperform estimation of sensitivities and specificities? *Journal of Evaluation in Clinical Practice*, 14, 5, pp. 934-940.
- Mulligan, K. (2003). Seeing, Certainty and Apprehension. In Fossheim, H., Larsen T. M. & Sageng J. R. (eds.), *Non-Conceptual Aspects of Experience* (pp. 27-44). Unipub.
- Peckhaus, V. (2008). Logik als Ethik des Denkens. Der Tübinger Philosoph Christoph Sigwart (1830-1904) und die Logik des 19. Jahrhunderts. In Bernhard, P. & Peckhaus, V. (eds.), *Methodisches Denken im Kontext. Festschrift für Christian Thiel* (pp. 101-113). Brill.
- Pust, J. (2019). Intuition. In E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, URL = <a href="https://plato.stanford.edu/archives/sum2019/entries/intuition/">https://plato.stanford.edu/archives/sum2019/entries/intuition/</a>>.
- Quine, W. V. O. (1964). Word and Object. MIT Press.
- Riggs, W. (2010). Open-mindedness. *Metaphilosophy*, 41, 1-2, 172-188.
- Sigwart, C. (1904). Logik. Erster Band. Die Lehre vom Urteil, vom Begriff und vom Schluss. Mohr.
- Shields, C. (2016). On Behalf of Cognitive *Qualia*. In Bayne, T. & Montague, M. (eds.), *Cognitive Phenomenology*(pp. 215-235). Oxford University Press.
- Skene, M. (2011). Seemings and the possibility of epistemic justification. *Philosophical studies*, 163, 2, pp. 539-559.
- Sosa, E. (1998). Minimal Intuition. In M. R. De Paul & W. Ramsey (eds.), Rethinking Intuition. The Psychology of Intuition and Its Role in Philosophical Inquiry (pp. 257-269). Rowman & Littlefield.
- Sosa, E. (2007). Experimental philosophy and philosophical intuitions. *Philosophical Studies*, 132, pp. 99-107.
- Sosa, E. (2014). Intuitions: Their Nature and Probative Value. In A. R. Booth, D. P. Rowbottom (eds.), *Intuitions*, pp. 3-49. Oxford University Press.
- Sprenger, F. (2019). Phenomenology, Immediacy, and Mediation: On Derrida, Meunier, and Landgrebe. In J. Hanich, D. Fairfax (ed. by), *The Structures of the Film Experience by*

- *Jean-Pierre Meunier: Historical Assessments and Phenomenological Expansions* (pp. 288-302). Amsterdam University Press.
- Stewart, C. & Wrisley, G. (2019). Private Language. In E. N. Zalta (ed.), *The Stanford Encyclopedia of Philosophy*, URL = <a href="https://plato.stanford.edu/archives/fall2019/entries/private-language/">https://plato.stanford.edu/archives/fall2019/entries/private-language/</a>>.
- Tucker, C. (2013). Seemings and Justification: An Introduction. In C. Tucker (ed.), Seemings and Justification. Newessays on dogmatism and phenomenal conservatism (pp. 1-29). Oxford University Press.
- White, M. J. (1980). Aristotle's Temporal Interpretation of Necessary Coming-to-be and Stoic Determinism. *Phoenix*, 34, 3, pp. 208-218.
- Wittgenstein, L. (1969). On Certainty. Blackwell.