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Epistemic Emotions and Co-inquiry: A Situated Approach

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Abstract
This paper discusses the virtue epistemology literature on epistemic emotions and challenges the individualist, unworldly account of epistemic emotions. It argues that epistemic emotions can be truth-motivating if embedded in co-inquiry epistemic cultures, namely virtuous epistemic cultures that valorise participatory processes of inquiry as truth-conducive. Co-inquiry epistemic cultures are seen as playing a constitutive role in shaping, developing, and regulating epistemic emotions. Using key references to classical Pragmatism, the paper describes the bridge between epistemic emotions and co-inquiry culture in terms of habits of co-inquiry that act as the scaffolding of epistemic emotions**.** The result is a context-sensitive and practice-oriented approach to epistemic emotions that conceives of those emotions as being shaped by co-inquiry epistemic cultures.

Keywords Epistemic emotions · Co-inquiry · Epistemic cultures · Habits · Virtue epistemology · Pragmatism

1 Introduction

Consider the anxiety you may feel if you do not know how to deal with a recurrent question of personal importance. The question may be fascinating, intrigue you in a particular manner, and hint at new paths of inquiry. You may feel motivated to explore these paths or to solicit others' opinions as to what you should do. But you might also feel an unresolved tension, a kind of restless inquietude because you lack an answer, coupled with an intense desire to find one.

This describes a possible experience of epistemic anxiety. I say "possible" because subjective experience is never generalisable: each person feels and engages with a situation in different ways depending upon her character traits, mindset, background orientations, aspirations, habits, and other contextual factors. While I described a very involved response above, we could also imagine a person being rather disinterested in finding answers to her bold questions. She could, for instance, strongly insist on and affirm her position, perhaps justified by a privilege of not needing to explore new perspectives. She could be arrogant. Or, she could deny the relevance of a purportedly puzzling question and try to avoid it altogether. Despite these differences, both responses, the involved and the rather indifferent one have something in common: they exhibit epistemic attitudes, dispositions, and emotions related to the process of inquiry.

In this paper, I advance a situated approach to epistemic emotions. I claim that emotions can be truth-conducive if and only if they are embedded in virtuous epistemic cultures. I take these to be cultures that create and warrant knowledge. I contrast them with vicious epistemic cultures where the truth is deliberately denied or there is indifference towards it. I then articulate a notion of virtuous epistemic culture in terms of co-inquiry cultures. Drawing on the Pragmatist tradition, I argue that epistemic cultures of co-inquiry, namely virtuous epistemic cultures that valorise participatory processes of inquiry as truth-conducive, play a constitutive role in shaping, developing, and regulating epistemic emotions. I spell out this role in terms of habits of co-inquiry that act as the scaffolding of epistemic emotions. This means that epistemic emotions can act as indicators of intrinsic epistemic value if embedded in cultures of co-inquiry. These cultures are concretely experienced through epistemic practices, material arrangements, and habits. This is a situated approach to epistemic emotions because it claims that emotions' directedness to truth depends on the epistemic culture in which the emotions are embedded. The epistemic culture

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is therefore the emotions' enabling condition for virtuous inquiry.

2 Working Concepts

Wonder, love of truth, and curiosity are good examples of what I have called "epistemic emotions". Emotions can be considered epistemic in two ways: (1) as indicators of intrinsic epistemic value, i.e. truth, and (2) as contributing factors to epistemic processes.

(1) is a sharp definition of epistemic emotions. It points to emotions' capacity to detect the value of truth, motivate an agent towards it, and regulate inquiry accordingly (Morton 2010). But this definition risks being too restrictive, even for those who are sympathetic to the idea of considering affective states in the epistemic enterprise. One might be sceptical about the capacity of emotions to motivate an agent to seek the truth. Or, one might want to argue that these pro-attitudes are not emotions but other affective states, for example, metacognitive feelings (de Sousa 2008).

(2) has the advantage of not circumscribing a class of emotions as epistemic. Instead, any emotion that contributes to epistemic processes is ascribed an epistemic character. In this vein, a typically moral emotion, such as shame, can be labelled epistemic when it is about epistemic mistakes (Candiotto 2019c). This perspective is more pluralistic and considers the epistemic functions fulfilled by emotions in epistemic processes like evaluation, deliberation, and belief revision (Hookway 2008; Livet 2016). But it could be objected that this is a weak definition since it only ascribes a contextual but not an intrinsic epistemic value to emotion.

In this paper, I will provide a situated approach to epistemic emotions. This is a context-dependent and practice-oriented conceptualisation of epistemic emotions that addresses the shortcomings of both positions (1) and (2). In line with (2), I will stress the embeddedness of epistemic emotions in epistemic practices, but I will also show that, if a certain culture of co-inquiry is present, (1) is also possible: that is, cultures of co-inquiry render emotions indicators of intrinsic epistemic value. More on this matter will be presented in Sects. 3 and 4.

Co-inquiry is a social process of knowledge production through active and participatory research that employs questioning as a method of problem-solving. Inquiry-based knowledge has existed for thousands of years; just think about the Socratic method of dialogical inquiry (see on this Politis 2015; Candiotto 2019b). But our contemporary understanding of inquiry as a scientific method is mostly indebted to pragmatist thinkers, such as Charles Peirce and John Dewey, who have highlighted its social dimension. In their notion of a "community of inquiry", they take the social nature of inquiry to be materially embedded and enacted in social epistemic practices.[1] Roughly speaking, knowledge is not the observation of a given reality, but an active process of inquiry into a problematic situation. This means that for Pragmatists, co-inquiry takes the form of a problem-solving activity triggered by real doubt. By "real doubt", Peirce means an existentially charged question that addresses a belief one actually questions, not a pretended, sceptical attitude towards a purely hypothetical matter. He notes that "the mere putting of a proposition into the interrogative form does not stimulate the mind to any struggle after belief. There must be a real and living doubt, and without this all discussion is idle." (Peirce 1986, p. 248). A living doubt is different from a "paper doubt," which for Peirce is not genuine since it is not kindled by a real, heartfelt issue (Peirce 1984, p. 212). Without living doubt, there cannot be real inquiry since real doubt plays an ineliminable role in motivating and regulating inquiry (Hookway 2002, pp. 246–264).

By addressing epistemic emotions and co-inquiry together, I will shed light on the fundamental conjunction of an affectively charged, living doubt and inquiry, and study it in terms of cultures and habits of co-inquiry. In brief: emotions are epistemic if embedded in processes of co-inquiry.

3 Virtue Epistemology on Epistemic Emotions

For Adam Morton (2010), epistemic emotions give rise to interest in a topic. He is considering those emotions that are directed at knowing and implied in processes of belief acquisition.[2] Epistemic emotions, therefore, serve as motivation towards epistemic ends. I argued in my previous work that their intentionality is defined by having truth as their formal object. I have thus characterised epistemic emotions as driving forces that specifically aim at truth because it is the most valuable epistemic good (Candiotto 2020). Along a similar line, James Montmarquet has argued that intellectual virtues need a motivation for truth (Montmarquet 2019). In many cases, epistemic emotions play this motivational role. Therefore, intellectual virtues require epistemic emotions

[1] In contrast to Peirce, for whom the key example of co-inquiry was a community of scientists, Matthew Lipman has applied the concept of co-inquiry to the classroom with early childhood curricula. In doing so, he has developed a Deweyan heritage of co-inquiry that focuses on educational settings. See Lipman (2003, pp. 20–27).

[2] These states have also been called "intellectual emotions" (Stocker 2004) and "cognitive emotions" (Scheffler 1991).

to motivate epistemic agents while they search for what is true. This motivational function attributes a causal role in knowledge acquisition to epistemic emotions. For example, curiosity, as something which captures and consumes attention, can motivate one to explore one's interests or concerns. Similarly, anxiety can motivate one to search for the source of that anxiety.

Michael Brady has extensively discussed why emotions can play an epistemic role (Brady 2009, 2010, 2013). His answer centres around the notion of attention. Basically, epistemic emotions direct attention to an object. The prioritisation of the object facilitates conscious awareness, reflection, evaluative understanding, and deliberation about it. For example, in response to the puzzlement and frustration that arise from having contradictory beliefs, one is obliged to search for alternative reasons and revise those beliefs. For Brady, epistemic emotions do not only play a motivational role. If that were the case, there would be no guarantee for the reliability of the process. Instead, he claims that epistemic emotions also regulate intellectual virtues. This does not mean that epistemic emotions themselves regulate and control virtuous inquiry, but that virtues enable epistemic emotions to motivate the subject towards the things she intellectually ought to believe. Here, the virtue theoretical approach exhibits its Aristotelian heritage: epistemic emotions are constituents of intellectual virtues.[3] Since, for virtue epistemologists, epistemic success depends on the intellectual virtues of the epistemic agents, it also depends on the emotions that serve as these virtues' building blocks. In more technical terms: *S* knows that *p* only if *S* has come to believe *p* through the exercise of intellectual virtue kindled by epistemic emotions.

In a nutshell, this is the virtue epistemology approach to epistemic emotions. It helps understand why emotions can play an epistemic role by bridging emotions and intellectual virtues. It rightly points to the fundamental role of subjective dispositions such as emotions in knowledge production. Especially in its responsibilist account (e.g. Code 1987; Montmarquet 1993, 2000; Zagzebski 1996), virtue epistemologists have fought against an abstract conceptualisation of knowledge, which has brought knowledge back to the subject, her dispositions, concerns, and responsibility.

As I said, I have argued for this account of epistemic emotions elsewhere. But it faces a problem I would like to raise in this paper. I think it is fundamental to ascribe epistemic responsibility to the subject and search for the conditions for success in knowledge acquisition within her character traits in a very personal manner.[4] However, I find it problematic to exclude the context in which the epistemic agent is embedded. As Sects. 4 and 5 will elaborate, context matters, and not just accidentally, because it makes specific emotions and not others available to the agent. It is true that virtue epistemologists, such as Lorraine Code, have challenged a "view from nowhere" (Code 1993) more than twenty years ago; but with the development of virtue epistemology, this has resulted in a quasi-exclusive focus on the individual subject and the subsequent marginalisation of her social positioning and interactions (Daukas 2019).[5] This has been partially provoked by a general internalist assumption of virtue epistemology that focuses almost exclusively on the will of the subject to understand epistemic responsibility (see Montmarquet 1993, 2000 for a prominent example). Therefore, the treatment of epistemic emotions in mainstream virtue epistemology is open to charges of individualism and unworldliness.

Mark Alfano and Joshua August Skorburg (Alfano 2013, pp. 111–139; Skorburg 2017; Alfano & Skorburg 2016) have raised a situationist challenge to virtue theory. The situationist objection stresses the weakness of virtues by showing how easily an agent is influenced by contextual features. Using empirical data, such as the famous Milgram experiment, Alfano and Skorburg have shown that most people are far from the ideal virtuous agent assumed in virtue epistemology because virtues are easily overridden by contextual factors, such as mood modulators, ambient sensibilia, and social expectation signaling.

In a similar vein, I address a situationist challenge to epistemic emotions. In brief, the reliability of epistemic emotions does not stem from an intrinsic motivation towards truth, as per (1). Their directedness to the truth instead depends upon the epistemic culture in which the epistemic emotions are embedded. This means that the situation builds the enabling conditions for virtuous or vicious inquiry in terms of epistemic cultures. However, my proposal does not go to the opposite extreme of simply focussing on the contexts at the expense of the subjects. As I will show in Sects. 4 and 5, epistemic cultures are concretely experienced through epistemic practices, material arrangements, and habits. Arguably, the pragmatist notion of habits and the

[3] Building upon Zagzebesky's distinction between motivational and success components in intellectual virtue, Candiotto (2017b) and Brady (2019) have argued that if the motivational role played by epistemic emotions contributes to the motivational component of intellectual virtues, the regulatory role is part of the success component.

[4] On personalism as a reply to the generality problem addressed in virtue epistemology regarding the ideal character of the virtuous epistemic agent, see Baehr (2011), Battaly (2016) and Slote and Battaly (2018). On the role played by subjective dispositions to scientific inquiry, see Candiotto (2020).

[5] A praiseworthy exception is Medina (2013), who offers a nuanced account of epistemic responsibility that is context-sensitive but does not let individuals off the hook.

resulting notion of habits of co-inquiry effectively bridge the contextual and subjective dimensions of virtuous inquiry.[6]

4 Embedding Epistemic Emotions: The Co-inquiry Culture

Let us take Montmarquet's approach as a clear example of the individualist and unworldly view against which I am arguing.[7]

First, a short summary of his view to orient the reader. For Montmarquet, intellectual virtues are traits of a person who desires to attain true beliefs and avoid any error. Intellectual virtues imply a robust motivational component that is understood as an effort for inquiry. Montmarquet conceptualises this effort as an expression of the will and responsibility of the epistemic agent.[8] Intellectual virtues are thus truth-motivational character traits. Consequently, intellectual vices are seen as a culpable absence of truth-directed effort (Montmarquet 2019).

Let us then explore what is questionable here. The main problem I have with this view is its focus on one single epistemic agent directing an inquiry to truth with the power of the will. I think that this can be challenged from many points of view, such as a feminist one that unveils this typically male-centred view of the epistemic agent as a hero who can do whatever he wants, thanks to his complete self-mastery and willpower. We can also take the vice epistemology view, which disputes the ideal character of this epistemically virtuous agent.[9] I just focus on the situationist view and thus criticise the absence of context, both in terms of social interactions (thereby charging the view with individualism) and in terms of social positioning and concrete form of living (thereby charging it with unworldliness). The exclusion of the context is not just phenomenologically inaccurate, it also misses an important factor in the realisation of virtuous or vicious inquiry, as we will see in a moment.

It is not that Montmarquet puts his epistemic agents in a void. He still claims that the will enables one "to pursue his own enquiries, to learn from others, yet not to be unduly bound to their opinions regarding his enquiries" thanks to a motivational virtue such as epistemic courage (1987, p. 487). But in saying so, Montmarquet does not fully appreciate the extent to which epistemic courage can be undermined by contextual factors that impair intellectual self-trust and self-worth. Also, he does not account for the possibility that, in powerful actors, epistemic courage can easily turn into arrogance. But his view is not just problematic for epistemic courage alone. It dismisses important cases of environmentally induced vices, for instance, when closed-mindedness is caused by indoctrination or intellectual servility by social oppression (Tanesini 2018; Kidd 2021). Also, it risks overshadowing the important and beneficial contribution that a positive environment can have in nurturing intellectual virtues, such as cooperative learning processes in the classroom (Baehr 2016; Candiotto 2017a; Curren 2019).

It might be claimed that with this criticism, I am undermining the base of virtue responsibilism since virtuous and responsible inquiry is realised through the wilful employment of intellectual virtues that secure knowledge. But this would only be the case if it is assumed that virtue responsibilism needs to stick with a purely internalist view about the will and intellectual virtues. There are already some virtue responsibilists, such as Heather Battaly (Battaly 2019), that are open to exploring the notion of non-voluntary responsibility to reply to the responsibility problem posed by vice epistemologists. In my opinion, the remedy for an individualist and unworldly virtue epistemology view is to focus on the situatedness of epistemic emotions and intellectual virtues in a constructive way.

To do so, I will first articulate a notion of virtuous "epistemic cultures" in terms of co-inquiry cultures. I claim that epistemic emotions can be positively truth-motivating only if embedded in such cultures.[10] I claim that epistemic emotions and intellectual virtues are not truth-motivating on their own. They will only fulfil this role when embedded in co-inquiry cultures and, as I will show in the next section when regulated by habits of co-inquiry. This also means that if the agent is embedded in vicious epistemic cultures, it is easily conceivable that she would not display

[6] For the pragmatist view of habits, see Dreon *forthcoming* and Candiotto & Dreon (2021).

[7] His view is a good case to explore because it allows me to stress the weaknesses of a view that also has multiple overlaps to the one I am defending here, insofar as it argues for inquiry responsibilism. Unfortunately, we often have to criticise the views closest to our own because we need to amend what we think is a mistake. Montmarquet's contribution to virtue epistemology is of paramount importance and with my criticism, I do not want to deny all of his positive claims. But let us isolate what does not work, with the constructive aim of hopefully improving the research field. *Amicus Plato, sed magis amica veritas*.

[8] In discussing doxastic voluntarism, Montmarquet (2008) has suggested focusing on the virtues and vices that are at the basis of epistemic responsibility, instead of on the voluntary or involuntary character of action and belief. Still, in Montmarquet's account, virtues are dependent on the individual's will.

[9] Vice epistemologists have a more realistic view of the epistemic agent as someone who quite often falls shorts of her epistemic commitments and is easily manipulated by contextual incentives.

[10] Alfano (2013) has provided another good remedy, a social constructivist view of intellectual virtues, which makes character dependent on the social environment. However, I would like to focus here on epistemic emotions since, as building blocks of intellectual virtues, they can have an enormous impact on provoking patterns of virtuous inquiry if embedded in virtuous epistemic cultures.

intellectual virtues. But we cannot just blame her for her epistemic vices. Acknowledging the strong influence of context over the subject does not mean that she cannot or should not mount epistemic resistance against bad influences (see Medina 2013). She can of course do so if, for example, she has experienced other, more positive epistemic cultures that exemplify alternatives to oppressive ones and believes that an alternative is possible. Therefore, it is not enough to claim that intellectual virtues, understood as individual character traits, can enable the agent to resist incentives that might derail her pursuit of truth (Brady 2019, p. 54). In my view, an internalist view of intellectual virtue cannot solve the problem of the reality of vices. Intellectual virtues should be embedded in specific virtuous epistemic cultures. In positive terms, this means that the agent is not left alone in her struggle for the truth, but can be supported by virtuous epistemic cultures. Our individual and collective ameliorative efforts should be directed towards the creation of such cultures in their material arrangements and practices.

Epistemic cultures are cultures of managing knowledge. They are "epistemic" because they have truth as their formal object, and they are "cultures" in terms of practices and use.[11] Cultures should not be taken in mentalistic or symbolic terms. On the contrary, they are amalgams of practices, material arrangements, environmental scaffoldings, and social mechanisms. They are enacted in what people do.[12] From a pragmatist point of view, "culture" should be envisaged in its concrete form as something that is continually modified by each human intervention from the inside, although culture is a social legacy preceding every single intervention. Differently from Knorr Cetina (1991, 1999), I do not think that epistemic cultures are just those that create and warrant knowledge. There are also epistemic cultures that obstruct and impede knowledge. I label the first "virtuous epistemic cultures", and the second "vicious epistemic cultures". So, having the truth as their formal object does not mean that all epistemic cultures aim at truth. It also means that the truth is deliberately denied or that there is indifference towards it, as in vicious epistemic cultures. Such epistemically vicious cultures can be found in societies that, for instance, allow people to acquire the 'privilege not to know' about the misery of others, such that their ignorance shields them from all sorts of structural and interpersonal injustices (Sullivan and Tuana 2007). Another example is a bullshitter epistemic culture (echoing Frankfurt 2005) where agents become gullible, willingly or not. This vicious epistemic culture can make agents trust whatever information is propagated by their preferred source of information and therefore incapable of distinguishing trustworthy from untrustworthy information. The bullshitter epistemic culture is even more dangerous in the online spaces where there are online cultures that work precisely by denying the trustworthiness of non-preferred sources, e.g., climate change deniers and Trump election fraud believers.[13]

This further qualification of epistemic cultures in terms of virtues and vices is essential to argue that virtuous epistemic culture should not be taken for granted and be explicitly included in the implementation of proper arrangements. Moreover, this shows that epistemic cultures are not secluded in privileged environments devoted to research and do not pertain exclusively to the scientific process of knowledge building in laboratories.[14] On the contrary, epistemic cultures are ubiquitous throughout society. From qualifying epistemic cultures in terms of virtues and vices and bringing them to real life, I thus derive the notion of "co-inquiry culture" as a virtuous epistemic culture, namely a specific epistemic culture that valorises participatory processes of inquiry as truth-conducive.[15]

[11] The notion of "epistemic cultures" was introduced by Karin Knorr Cetina and applied to the practice of science (Knorr Cetina 1991, 1999). Based on years of experience in two labs (high-energy physics and molecular biology), Knorr Cetina suggested the notion of epistemic cultures as a solution to the comparative and explanatory difficulties involved in interdisciplinary research (Knorr Cetina and Reichmann 2015).

[12] Important links can be drawn between my account, Knorr Cetina's research, and the affective scaffoldings-arrangements-milieus literature. See Hutchins (2008), Colombetti and Krueger (2015), Slaby et al. (2017) and Schuetze (2021).

[13] Studies on "echo chambers" and "epistemic bubbles" analyse the specific mechanisms and dynamics of the online places in shaping the individual's epistemic lives (Jamieson and Cappella 2008; Nguyen 2020). Recent work has been done for expanding these studies to the affective dimension (Kruger and Osler 2019). In this paper, I cannot dive into the similarities and differences between the offline and the online cultures regarding how they scaffold emotions. But I want to stress that the power of the online cultures over the individual's epistemic lives could be even stronger than the one of the offline cultures given their pervasiveness and sophisticated tools for manipulating beliefs. This does not mean that there are no virtuous online cultures. In fact, many use participatory models of knowledge production, as forums on Reddit and Twitter's new product to support healthy conversations. So, I suggest applying the distinction between virtuous and vicious epistemic cultures to the online cultures as well. I hope that new studies will be developed for understanding their specific features, also regarding the character of co-inquiry.

[14] The realm of science and scientific reasoning is not somehow isolated from or immune to damaging epistemic cultures – they are bound up with these cultures and are often reinforcing of them. I would like to thank Roberta Dreon for this important remark. Moreover, as highlighted by an anonymous reviewer, co-inquiry can be employed for pursuing vicious aims and perpetuating epistemic injustice. In my view, in this case, there is an exploitation of co-inquiry that has been disjointed by the truth as its formal object. I cannot explore this important topic here, but I hope to do it in the future.

[15] This paper does not aim to provide a concrete, empirical account of the shape and form such cultures may take, although this is an aim that is worth pursuing and I would like to contribute to it in the future. I hope that the reader can detect 'little worlds' (von Maur 2021) in which the co-inquiry cultures are embedded by looking at

Let us come back to Montmarquet's effort to inquiry. As we saw, he interprets this effort as the outcome of an agent's will in a purely internalist way. But I doubt that the will can have such conclusive authority. The situationist's empirical studies prove the contrary, and many arguments have been provided against doxastic voluntarism.[16] What if we take a different perspective and focus on how the agent can properly rely on others? I claim that this reliance would not imply dismissing epistemic responsibility since the autonomy of thought is a relational virtue and depends very much upon upbringing, social context, etc. Instead of understanding autonomy of thought as self-sufficiency, we can characterise it as proper empathic reliance on others (Bagnoli 2020). This is different from defective cases of reliance, such as servility and submission. This argument says that we can differentiate between proper and improper reliance through the requirement of equal normative standing, which means that we can rely on others when we recognise them as our peers from a very fundamental point of view: the autonomy of every human being (Bagnoli 2017).[17] Setting aside the role of empathy in relying on others, which would bring the paper too far from its scope, I want to stress that proper reliance on others is embedded in a co-inquiry culture. In my case, this happens when agents mutually recognise one another as equal co-inquirers who contribute to the collective effort to inquiry. Epistemic responsibility depends upon co-inquiry cultures where agents are confident that they can rely on each other and participate in collective efforts of inquiry for solving problems, which is necessary in situations that involve experimenting with new views on an issue or interpreting data.

A next step is required to emancipate us from an internalist view about the "effort to inquiry". In one of my previous works, I have argued for an externalist view of motivation (Candiotto 2019a). Drawing on Battaly (2018), I have pointed out that we do not necessarily need to be purely internalist about motivation because motivation can be attributed to a group, such as when people brainstorm in small groups or responsibly commit to a shared goal. Along these lines, I suggest taking collective efforts of inquiry to be a specific type of externalist motivation in the participatory environment of co-inquiry. Participation implies the active engagement of each individual in the joint activity of co-inquiry and requires that each individual have equal normative standing. My point is that the specific participatory environment made up of material arrangements (such as sitting in a circle, for example) and practices (such as a question-oriented discussion and self-awareness about power dynamics) of co-inquiry scaffolds the agents' efforts to inquiry.

These efforts have a peculiar affective dimension, which Peirce has identified as the irritation of doubt and Dewey as interest and tension.[18] What happens in the room where the interlocutors are brainstorming is a wave of disquieting and painful aporetic states, but also of luminous surprises and fascinations, both of which inform agents' concerns and responsibility to inquiry. The room is the place where the living experience of co-inquiry occurs and where real doubt is shared in a participatory manner. It may be first experienced by only one interlocutor. But her questions can then instigate doubts in others who may share her concerns and who, in turn, can participate in building new meanings to explore the issue.[19] The cognitive, affective, and social dynamics in these types of interactions are very complex, and I cannot further analyse them here. My concern is the embeddedness of epistemic emotions in co-inquiry. This means that the interlocutors' fluid interactions are modulated by the specific co-inquiry culture that is enacted in affective dispositions and embedded in arrangements for co-inquiry**.** Let us move to the next section and explore this aspect along with habits of co-inquiry.

Footnote 15 (continued)

her experience. I can list here some candidates of such cultures from my experience: the German Socratic Dialogue, Philosophy for Children and Community, the Tibetan Buddhist Debate, the Fridays for Future international climate movement, the decolonial movement, bioregionalism, the Freire-Boal network.

[16] This does not mean that these arguments have the final word—many counter-arguments have been addressed and the debate is still ongoing. See Shah (2002) and Steup (2008) for a defence of doxastic voluntarism.

[17] It is important to stress that I am referring to *every* human being, not the privileged white man who is the tacitly assumed subject of the standard liberal accounts about the "normative equals". But assuring access to the epistemic domain to every human being requires emancipatory work and the creation of inclusive spaces for co-inquiry. It is not simply a matter of definition.

[18] "The irritation of doubt causes a struggle to attain a state of belief. I shall term this struggle inquiry" (Peirce 1986, p. 247). "When there is something seriously the matter, some trouble, due to active discordance, dissentiency, conflict among the factors of a prior non-intellectual experience; when (…) a situation becomes tensional" (Dewey 1916, p. 11). For a discussion and interpretation of Peirce's conceptualisation of inquiry very close to inquiry virtue epistemology, see Hookway (2002). About Dewey, see the Introduction to "Essays in Experimental Logic" (1916, pp. 1–74).

[19] For a concrete account of this process, see how the term "sexual harassment" came about within a women's collective at a university. They were searching for a word in order to break the silence about it (Fricker 2007, p. 150).

5 Epistemic Emotions in Habits of Co-inquiry

Instead of listing the different arrangements of co-inquiry,[20] I would like to focus on the kinds of enculturated transactions—mostly habitual ones—through which epistemic emotions are scaffolded. This is crucial for understanding how epistemic cultures scaffold individual orientations. I think that this perspective is very much needed to avoid the mistaken view in which we lose the subject and her subjective dispositions while focusing on the context and, at the same time, to bring the context into virtue responsibilism.

In order to take these enculturated transactions into account, I suggest we focus on habits. Habits are more or less flexible channelings of both organic energies and environmental resources, including the human niche's sociocultural features (Dreon forthcoming). Habits have social as well as individual aspects, i.e. that they are socially shaped but also inflected by personal histories. In a joint work with Roberta Dreon (Candiotto & Dreon 2021), I have designated habits as affective if they play an essential role in prompting human affectivity and are produced, nourished, and reset by our affectively charged transactions with the world. As I am arguing in this paper, these transactions are always structured within specific cultures. In line with the Pragmatist tradition, I do not take affective habits as merely customary emotional responses; affective habits do not simply allow the agent to become absorbed by an affective niche, as is sometimes the case with mind invasion phenomena (Slaby 2016). In special situations, such as in the case of habits of co-inquiry, habits are transformative, as we will see in a moment.

Habits of co-inquiry are channels of a co-inquiry culture that are enacted by the agents who predominantly live in that culture.[21] They are essentially social (Dewey 1988, p. 15): they are set up in the co-inquiry social settings and simultaneously enacted by the agent in her social transactions via dispositions of co-inquiry. As Dewey wrote, there is the co-presence of "a society or a specific group of fellow-men" in habits (Dewey 1988, p. 16). Through habits of co-inquiry, agents enact a co-inquiry culture by regulating their epistemic emotions. This means that habits of co-inquiry scaffold epistemic emotions and direct their motivational power to truth. Epistemic emotions, in turn, as regulated by habits of co-inquiry, make agents perform co-inquiry-oriented actions in scaffolding the environment. This is crucial for my thesis about the embeddedness of epistemic emotions.

It might be objected that intellectual virtues play the regulatory role that is ascribed to habits here, and that my claim is therefore just a transposition of what virtue epistemologists have always said regarding virtues. But what I am proposing with the pragmatist notion of habits is very different. As long as we take intellectual virtues to be individual character traits regulated by the agent self-mastery, we risk overshadowing the possible constructive role that the environment can play in enacting epistemic responsibility. In my account of habits of co-inquiry as the scaffolding of epistemic emotions, this constructive aspect is explicit. This is because habits take place at the intersection of the personal and the social. Habits can be shifted through individual initiative but also require wider environmental changes. Moreover, habits can better explain how an epistemic culture is enacted by agents, which limits the risk of reducing the epistemic culture to a simple overarching structure. Habits of co-inquiry are not attributes of a puppet that are moved by a co-inquiry epistemic culture,[22] but are ways in which co-inquiry epistemic cultures are enacted, continuously rearranged, and eventually modified by real practices of co-inquiry.

Considering epistemic emotions and habits and cultures of co-inquiry together is also crucial because it clearly explains that it is not the case that an agent feels something ex nihilo and then repeats this feeling until it becomes an almost automatic part of her affective behavior. Rather, her actions and transactions are already embedded in a specific context of practices and meanings that shapes her emotional repertoire.

I want to add a final remark before concluding with the embeddedness of epistemic emotions. We have different habits, some of which are good, some bad. As I said, habits of co-inquiry enable an agent to pursue virtuous inquiry with others in a participatory way. Unfortunately, I cannot further analyse the different roles of these specific kinds of habits here. But I can say that among these roles, one seems to be crucial for the emancipation of agents from intellectual vices: that which enables the agent to embrace habits-crises and engage in habits-revision. This is important because it shows that the process of knowledge building that

[20] I think that this is a relevant line of inquiry, especially to implement scaffoldings for learning in education or management sectors. A co-inquiry culture is devoted to creativity and innovation and is flexible and dynamic in terms of the practices and arrangements in which it takes form.

[21] It is important to note that agents do not live in only one epistemic culture. In our multicultural societies and the blend of offline and online cultures, we can experience different epistemic cultures depending upon the social circles we inhabit. The possible conflicts among the different epistemic cultures one inhabits, and positive ways of prompting revision of beliefs and epistemic friction about the culture that the agent recognises most as her own, are beyond the scope of this paper, but I intend to do future work on this topic.

[22] In claiming this, I am distancing myself from a conservative view of habit generation as the result of a society's ubiquitous conditioning powers.

I described as co-inquiry can also kindle processes of self-reflection and self-transformation in terms of habits-transformation. This seems to be a skill that must be enacted when resisting vicious epistemic cultures. Therefore, it is not that habits of co-inquiry are simply the habits of people living in a co-inquiry culture. It is obvious that to have these habits, people need to have already experienced such a culture deeply and recursively. But people never live in one single, isolated epistemic culture. They inhabit different epistemic cultures both synchronically and diachronically. Therefore, habits of co-inquiry can be used as tools to combat vicious epistemic cultures that people might encounter in a specific social niche or at some point in their life. This transformative power relies on exposure to alternative epistemic perspectives in cultures of co-enquiry but also a dismantling of the incentive structures that discourage individuals from staying with and working through epistemic friction. I cannot elaborate on this analysis here, but I wanted to mention this fundamental role in to indicate the ameliorative and liberatory aims that can be developed out of my proposal.

6 The Embeddedness of Epistemic Emotions

The aim of this paper has been mostly to explain why epistemic emotions should be embedded and in which sense they can be. I did this by charging a key exemplar of virtue responsibilism with individualism and unworldliness, and by framing epistemic emotions within a reflection on epistemic cultures and habits. It might seem that in doing so, I was developing a line of inquiry from (2) alone. It is true that my work on epistemic cultures can strongly argue for (2), but my exposition on co-inquiry culture has also allowed me to show that the agents inhabiting that culture develop habits of co-inquiry that in turn motivate epistemic emotions towards the truth. Therefore, in discussing (2), I can also claim that (1) holds true, not as a universal claim, but as a situated one. This means that, as in case (1), epistemic emotions can be those that orient one towards truth, but they can only do so if they are, unlike mainstream intellectual virtues, regulated by inherently social habits of co-inquiry.[23]

While discussing the virtue epistemology approach to epistemic emotions, I highlighted that epistemic emotions are part of the motivational component of intellectual virtues. I can keep this definition, but only with a crucial amendment: in co-inquiry culture, epistemic emotions are socially extended motivations for co-inquiry.

Our emotions—like many other components of our mental life—do not magically fit epistemic goals by nature; they need to be regulated within patterns of co-inquiry. I claim that we can do so by creating co-inquiry cultures that are enacted in our epistemic practices and material arrangements of co-inquiry. This seems to resonate with the importance of developing abilities ascribed by virtue responsibilism, but instead of looking at internal processes of self-regulation and self-transformation, it focuses on building virtuous environments. Therefore, as I said regarding the habits of co-inquiry, these habits also fulfil the function of inducing self-reflection and habit revision. This means that self-transformation is not excluded, but it is not considered to be solely in the hands of one single responsible thinker. Finally, emancipation from the heroic, virtuous agent of the individualist virtue epistemology does not imply forfeiting epistemic responsibility.[24] Epistemic responsibility can instead be enacted in the creation and promotion of virtuous epistemic cultures, as well as in the fight against vicious ones.

A last word about co-inquiry epistemic cultures. Co-inquiry epistemic cultures are not just one case among many virtuous epistemic cultures that can be studied. I claim that co-inquiry epistemic cultures have a promising ability to spearhead the development of situated approaches to epistemic emotions and intellectual virtues. This is possible because, as cultures that valorise participatory efforts for truth, co-inquiry cultures are where epistemic emotions can be effectively directed towards truth. This does not mean that I do not hope that new situated studies will be developed regarding other epistemic cultures; they are still necessary, in particular regarding studies of vicious cultures. My point is to stress that co-inquiry epistemic cultures can, like the north star, act as a point of reorientation and guide studies on epistemic emotions and virtue responsibilism back to where they belong: the social world that we inhabit.

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[23] This may lead to an externalist or interactionist view of intellectual virtues as an alternative to mainstream intellectual virtues. See Alfano (2013) and Alfano and Skorburg (2016).

[24] We can have epistemic heroes, of course, but we don't have to forget that they are always part of a social network with interrelated actions. On epistemic heroes and connected activism, see Medina (2013). Feminist thinkers have also argued that the extreme emphasis on the exceptional character of one single individual can serve to dismiss the power of collective actions and social movements. See Mohanti (2003).

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