

# The dispositional ingredients at the heart of questioning and inquiry

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## Abstract<sup>1</sup>

I offer a modified characterisation of the dispositional grounds of inquiry, in which both the state of knowledge of those involved and their desire for answers or solutions are supplemented by a more nuanced set of dispositions, central to which is the intended transition from a *state of unsettlement* (or tension) to one of *settlement* with respect to those who ask and respond to the questions (especially students and teachers). I test this characterisation against the *Question Quadrant*, a familiar device used by *philosophy in schools* practitioners to assist them and their students to identify philosophical questions and distinguish them from other kinds of question. While appreciating its practical utility, I submit that this device fails to capture key elements of what we mean, or should mean, by such terms as ‘open questions’ and ‘inquiry’, with respect both to philosophy and to other disciplines.

## Key words

dispositions, inquiry, openness, questioning, Question Quadrant, settlement

## Introduction: Questions about ‘open questions’

It is widely accepted that good questioning is, or should be, an important activity for both teachers and students, particularly when a key goal is to encourage the latter to think more carefully, more deeply or, as I like to say, more powerfully. The qualifier ‘good’ and the comparative ‘more’ are related here, for the implicit assumption is that whereas any response to any question involves some thinking, if only the superficial recollection of a simple piece of previously learned information, good – or powerful – questioning calls on the respondent to engage in some form of ‘higher-level’ thinking. Such thinking involves analysis, synthesis or evaluation (referring to the familiar Bloom

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taxonomic levels); not just a recollection, but an inference or calculation of some kind, in which answers are backed up by reasons, evidence, criteria, and so forth. In this paper, I am interested in those questions that stimulate a particular form of higher-level thinking that can be termed 'inquiry'.

How should inquiry be characterised in the context of classroom teaching and learning? If, as is commonly assumed, the questions most conducive to, and indicative of, inquiry are known as 'open questions', which characterisation of openness is most appropriate here? The implicit connection which I have made between these two questions may seem pre-empted by a more intuitive understanding of openness: that open questions do not have answers, or do not have 'settled' answers, or have multiple answers or, taking an epistemological perspective, are questions to which those involved—questioner and respondents—do not know the answer. So I should state explicitly that I reject these characterisations in favour of a more nuanced and contextual view of both openness and inquiry.<sup>2</sup> This view should appeal to those, like myself, who believe that classrooms function most effectively as *inquiring communities*, regardless of whether the focus of the inquiry is philosophy or some other area of study. It also embraces a more general conception of inquiry—one which applies beyond the classroom to the broader concerns of society as well as the more specialised concerns of professional scientists, mathematicians, historians, writers, and others. I see little point in allowing that inquiry, in the context of students and classrooms, is somehow different in kind from these broader conceptions.

### What is inquiry?

Whether implicitly or explicitly, inquiry is preceded and driven by questions, whereby the process of inquiry may be construed as a search for solutions or answers to these questions. We ask questions when there is something which (i) we do not know or understand and (ii) we seek/wish to know or understand. Wishing and seeking, like asking, reflect a motivation driven by curiosity, puzzlement or wonder. But while questions—whether asked explicitly or lying in the background—are essential to any inquiry, their presence does not, by itself, signal that some kind of inquiry is occurring, or is about to occur. I may ask you whether or not it is raining outside, or to account for

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<sup>2</sup> I have long held such a view: 'Irrespective of the subject under consideration, or the ages of those involved, what really produces [openness/]closure is neither the question, nor the answer, nor again the epistemic state of those involved, but the *environment* in which questions and answers are considered ... not open/closed questions but open/closed *questioning*' (Splitter & Sharp 1995, p. 55). This paper represents my belated attempt to articulate and defend it.

your whereabouts at the time of the murder or, in more pedagogically familiar terms, to prove a mathematical theorem (i.e. to ask you for the solution in the expectation that it will require you to produce a proof), or generate a hypothesis about the results of mixing sodium and chloride (i.e. to ask you what happens when you mix them). In all such situations, my questions reflect curiosity on my part although they may not produce much by way of inquiry. Notice that this curiosity might be 'first-order' or 'second-order' curiosity: the former when I genuinely am curious as to the answer to the question being asked; the latter—characteristic of those questions regularly asked by teachers—when my curiosity is focused on whether or not *you* know, or can work out, the answer. Still, the questions and tasks offered as examples above do not automatically signal that an inquiry is about to occur, especially when the expectation of receiving a fairly immediate correct answer or solution is high. Further, there is no guarantee that questions will be followed by responses at all—if, for example, the former are not understood or those asked have no interest in responding or, again, have no response to offer. When it comes to teachers and students, it is likely that a lack of understanding on one side or the other can be overcome by way of further explanation of what was meant. Notice that here, too, such responses as 'I don't understand the question' presuppose some interest on the part of the respondent. But what kind of interest is most pertinent? Recalling the distinction between first and second order curiosity—or interest—the majority of questions asked are first-order, implying that the questioner does not know the answer to the question he or she asks. A tourist asking where a famous museum is located, an astronomer wondering if there are habitable planets in a particular galaxy, an historian trying to identify the salient events that caused a particular battle, and a student asking how to solve an equation or distinguish among alternative economic models for managing a just society—unless s/he is behaving insincerely or under some form of compulsion—genuinely wants to know the answer. In many such situations, questioners will ask those whom they believe or, at least hope, 'know' the answer, but this is not always the case. Our astronomer and historian, for example, being genuine scholars/researchers in their respective domains, are most probably asking their questions precisely because (they assume that) *no one* can give them a satisfactory answer—at least, not initially. I contend that the potential for genuine inquiry is inversely proportional to the expectation that those being asked will provide the answer on account of their expertise, reputation or status. Neither the police officer asking about a suspect's whereabouts at the time of the murder, nor the tourist searching for the museum is engaging in a genuine inquiry; they simply want the answers to be given to them. Likewise, to the extent that students' questions are directed at someone whom they believe/hope knows the answer, they too are not

engaging in inquiry; they simply want the answer to be provided. It does not follow that giving the answer is the best pedagogic strategy — what begins as a simple request for information can be transformed into something more powerful, namely, inquiry (the opposite is also true: what might well be an opening to inquiry can be all-too-easily snuffed out, particularly by a teacher who feels under pressure to ‘move on’ to the next topic).

Before proceeding further down this path, I should say something about those scenarios in which the curiosity on the part of the questioner is second-order. The quiz-‘master’ who asks a contestant a question to which he (and it is almost always *he!*) already knows the answer is aiming to determine if the contestant also knows (or can guess) the answer. Whatever the dispositional states of those involved may be, a genuine interest in the question and its solution are almost certainly not among them; their respective interests are purely instrumental (winning a large amount of money, entertaining the audience, etc.). Turning to the classroom and the kinds of questions asked there, a considerable body of research has long confirmed that (i) the majority of questions asked are posed by the teacher, and (ii) the majority of those questions are epistemologically akin to the quiz-master’s in requiring only such skills as recall and simple comprehension to answer correctly — thereby closing off the prospects for further inquiry (see, for example, Blosser 1975, Young 1992, Sullivan & Clarke 1991, Sadker undated). It may be that both questioner and those questioned do indeed have a genuine interest in the subject matter; still, once again, the common assumption is that teachers know the (correct) answer and that their main objective is to determine if (one or more) students also knows it, or can work out or recall it. Importantly, this scenario doesn’t exclude the potential for genuine inquiry, but it does reduce its likelihood, *not* because teachers—and perhaps some students as well—know the answer (still less because there *is* a correct answer), not even because their overriding interest is pedagogic and instrumental, but because the students’ overriding interest lies in *satisfying the teacher* by providing the correct answer (along with the fear of ‘losing face’ if they provide an incorrect answer). To the extent that *this* interest is overriding, it is likely to smother any first-order interest in the subject matter itself, and *that* is what minimises the potential for inquiry.

I have already stated that inquiry is a process aimed at answering questions or solving problems which precede and drive it. The detailed nature of this process depends upon the subject matter, discipline or field of inquiry, be it philosophy, science, history, social studies, literature, politics, and so on. I am assuming that each of these disciplines can indeed be associated with a certain *discipline* of thought and activity, i.e. a body of rules

and procedures which guides its followers and practitioners to make certain kinds of moves and avoid other kinds. Further, those who hold that the *community of inquiry* provides an appropriate framework for effective teaching and learning are proposing that students acquire and enact collaboratively the same disciplines of inquiry as those modelled by their more expert counterparts, albeit at a suitable level of complexity in relation to their age, maturity and knowledge level. In short, at the heart of student learning in science, philosophy and history lies their own reflective and self-correcting practice in and of these disciplines. This idea, aimed at reducing the gap between *learning x* and *doing x* is hardly new; it serves as a reminder that a community of inquiry is an *authentic* environment in which novices, as well as experts – with teachers placed somewhere between these extremes – regard themselves as thinking scientifically, philosophically, and so on (Splitter 2009). But my specific interest here is with what *drives* the process of inquiry among experts as well as among students and teachers. I suggest that the drivers of inquiry are a combination of questions and certain associated dispositions and attitudes – specifically those, like curiosity, puzzlement and wonder, which motivate us to search for answers and solutions.

### The idea of settlement

Open questions—those which are most conducive to inquiry—are sometimes characterised as questions with no settled answers, as opposed to closed questions which do have one or more settled answers (Cam 2006, p. 33). But on this view, it is hard to envisage how such established subjects as science *can* be taught as forms of inquiry (or, in other words, how a classroom community of scientific inquiry could exist<sup>3</sup>) since, with the possible exception of advanced science lessons at senior secondary or tertiary level, nearly all of the (scientific) questions posed by teachers and text books will, indeed, have settled answers. As a long-standing contributor to the *philosophy for children* literature, I can understand the appeal of such a narrow view of science—along with most other school subjects—namely, that it highlights the importance of philosophy because its questions do *not* have settled answers and so the quest to resolve them cannot be cut off by an appeal to the ‘correct’ answers. Hence, we find in such widely-used tools as the *Question Quadrant* (Cam 2006; see Figure 1) the implied classification of scientific questions, no matter how thought-provoking, as closed, while philosophical questions are deemed to be open and, accordingly, qualify as the only questions ripe for inquiry. Surely something has gone awry here.

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<sup>3</sup> I prefer the term ‘community of scientific inquiry’ to ‘scientific community of inquiry’ because it appropriately links the type of inquiry to the discipline in question.

The distinction between 'settled' and 'unsettled' may seem to refer to a question asked in relation to what is known or unknown by experts in the field being explored — hence the idea that the lack of settlement is an *objective* fact about the question asked. But there is another dimension which needs to be considered, namely, the distinction between *feeling settled* and *feeling unsettled*, where the feelings in question belong to those *who are engaged* in the inquiry process (students, for example). This distinction, in turn, relates closely to the level and type of motivation that moves them to search for answers. I hold that:

*The feeling or sense that matters are unsettled, in so far as it determines the dispositional states of those inquiring, is the crucial ingredient needed for sparking an inquiry, irrespective of the state of settlement among relevant experts in the field.*

Of course, when those inquiring happen to be, or include, such experts, then their sense that things are not settled may be taken as definitive of the state of knowledge in the field itself. But since my concern here is with the conditions underlying student-based inquiry, we do need to distinguish between questions that they find unsettling and those that relevant experts find unsettling.

I noted earlier that we ask questions when there is something which (i) we do not know or understand and (ii) we seek/wish to know or understand. I explained in some detail why these conditions, while necessary for inquiry, are not sufficient. Teachers, for example, seek to know something when they ask questions of their students, but to the extent that their curiosity is what I have termed 'second-order', and that, accordingly, students' responses are aimed at and motivated by a desire to win praise or reward by providing the correct answer, then the potential for inquiry is relatively weak. Likewise, when students—like most people—ask questions of someone whom they expect will already know the answer *and* that person does indeed supply it, the potential for inquiry is also minimal because their sense of curiosity, despite being first-order, is likely to be satisfied relatively quickly and without much thought or effort on their part.

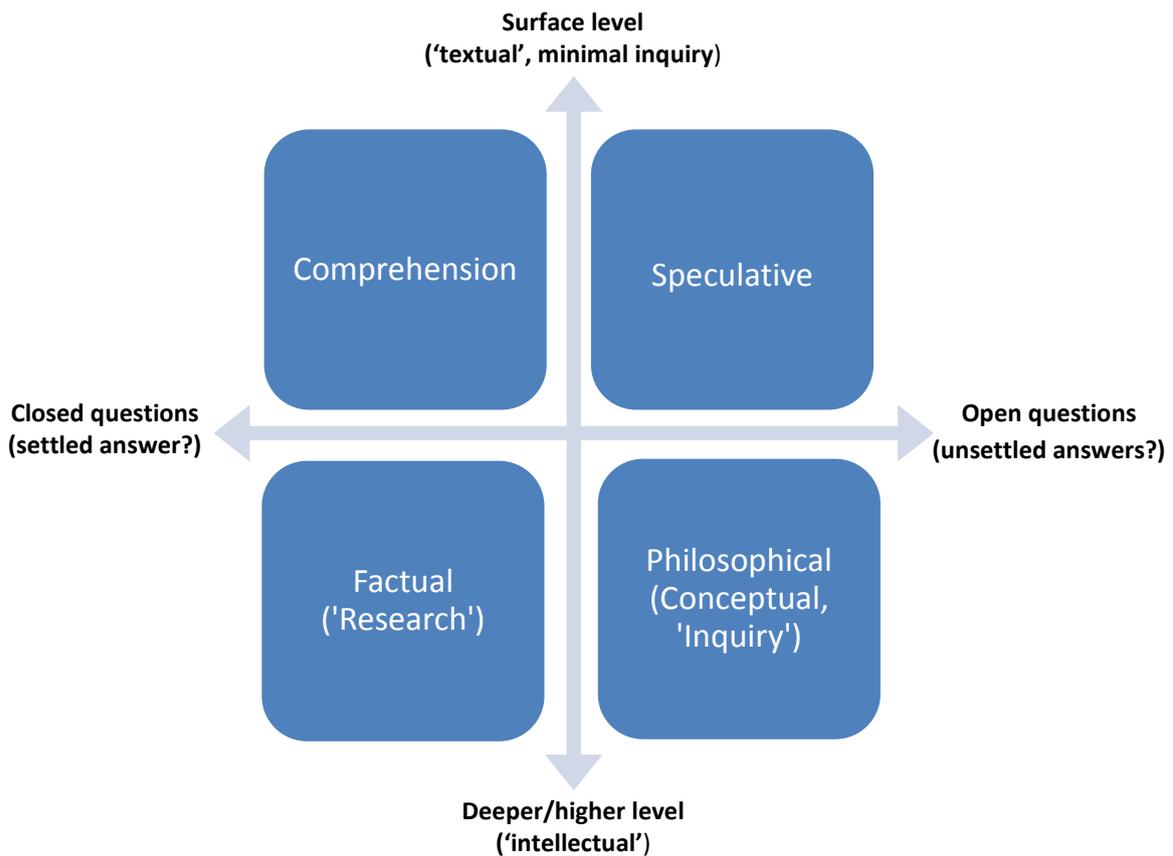


Figure 1: Question Quadrant

On the other hand, in situations where all those involved—questioners and potential respondents—have a strong degree of first-order curiosity—i.e. about a question and its as-yet-unknown answer—then the conditions conducive to inquiry are more likely to be met. This is because the sense that things are not settled applies both *psychologically*—they *feel* the lack of settlement—and *epistemologically*—within the context and boundaries of their current state of knowledge, they believe that the answer *really is* unsettled or not known. In this situation, those asking the questions have a genuine desire to answer the question, resolve the puzzle, solve the problem.

### The dispositions that promote and sustain inquiry

In this discussion, I use 'dispositions' as a blanket term, covering those mental aspects which, in conjunction with skills and background conditions, lead to intentional action. Synonyms include 'inclinations', 'attitudes', 'tendencies', 'commitments', 'conditions', even 'passions'. (I have offered a detailed analysis of the structure of dispositions and their role in human agency—and hence, education—in Splitter 2010a).

The psychological dispositions and attitudes that lay the ground for and drive genuine inquiry may be outlined as follows:

1. An awareness—including self-awareness—that we (i.e. the group or community which is asking or responding to the initial question) either don't know the answer to the question or do not understand something which is needed for its solution;
2. First-order curiosity or puzzlement which motivates:
3. A desire to solve the puzzle and satisfy our curiosity by answering the question/discovering the solution/understanding the issue, etc.
4. A belief or expectation that we *can* find a satisfactory—and satisfying—answer/response/explanation or, at least, make some progress toward one;
5. More general dispositions such as patience, persistence, confidence, thoroughness, respecting the procedures appropriate to the mode of inquiry (e.g. scientific or historical method, reasoning, conceptual thinking ...) and a commitment to self-corrective thinking. These dispositions are known as 'character traits' or 'intellectual virtues'.

It is the combination of 1, 2 and 3 here that produces the unsettlement which, as I have described, may be construed in both psychological (we feel unsettled and want settlement) and epistemological (we believe that there really is something to be settled) terms. The rationale for adding 4 (the belief or expectation that settlement is possible for us) is, again, both psychological and epistemological. We believe both that our feeling of unsettlement will be resolved and that either there really is a solution/resolution to the question which prompted the inquiry, or that we can make genuine progress toward one. I shall say more about these conditions below.

To see how these conditions combine in practice, consider some likely candidates for classroom inquiry, using the Question Quadrant as a guide. To reiterate, my interest here is in the dispositional elements, rather than the process of inquiry itself whose details are largely determined by the subject matter and disciplinary procedures involved. Accordingly, we imagine ourselves as students presented with one or more questions for consideration. Such questions may emanate from teacher, textbook or other stimulus, or the students themselves. Any source of questions is acceptable, with the qualification that those raised by students are most likely to satisfy the condition of first-order curiosity.

**A reading comprehension question:** By definition, the answer to such a question is given—whether transparently or more obscurely—in the text or stimulus presented.

Referring to the dispositional conditions listed above, it is quite likely that some students will know the answer straight off, while others will not (depending on how obscure or disguised it is in the text). Needless to say, those who know it, or believe that they know it, will feel that there is nothing for them to inquire (or even think) about beyond simple recollection. The matter of first-order curiosity may well depend on the level of interest or excitement in the stimulus itself. Indeed, embedding inquiry-based activities in the broader framework of a story or other context increases the likelihood that students will want to discuss it because they find it interesting or appealing. It is difficult to embed much curiosity, puzzlement or intrigue within a single question. Hence conditions 2 and 3 will be met by students with a desire to answer the question borne out of an awareness that they don't already know it but are curious about it. Likewise, students engaged in reading comprehension exercises will usually expect that they can find an answer (Condition 4). The dispositions covered by Condition 5 are likely to be exercised only if the reading comprehension task has sufficient depth or complexity—an inference from material in the text, for example; questions answered quickly and/easily require little by way of patience, persistence, and so on. It seems, then, that the primary obstacle in the way of reading comprehension questions leading to inquiry is that whatever curiosity and unsettlement they produce is likely to be short-lived; in other words, the inquiry is cut off before it can really take off.

**A purely speculative question (arising perhaps from a literary source):** There is no single accepted definition of speculative thinking; it can refer to thinking beyond what is known in either a creative or random sense; it can also refer to theoretical reasoning, in contrast to practical or applied reasoning, but here, too, it can be understood both constructively and negatively. In so far as speculative thinking involves reaching into the unknown (because there is nothing given which can guide such thinking or because it refers to future events), it is often regarded as *risky*. As candidates for inquiry, speculative questions can also be viewed negatively or positively. If mere speculation replaces careful thinking or investigation, it could be dismissed as 'just guessing', but if students are consciously invited to speculate—e.g. on the potential fate of a literary character or the aftermath of a fictional event or, to switch disciplines, on what they think is likely to happen if two unfamiliar chemical elements are combined—then such thinking might be regarded as quite inventive or imaginative. Students can counter the 'just guessing' criticism if, for example, they suggest *reasons* for what they are proposing, in which case the combination of reasoning and imagination may well be regarded as worthwhile. In any case, what can be said about the dispositions of students who are engaging, or are tempted/invited to engage in, speculative thinking? Referring once more to the list provided earlier, a lack of knowledge seems inbuilt here: if we

know or even suspect the answer to our question, then it is hard to see any room for speculation. However, something quite interesting occurs when we consider Conditions 2, 3 and 4 which, as I suggested, are often linked (the sense of curiosity or puzzlement induces a desire to find an answer/solution encouraged, in turn, by a belief that one exists to be found). Students sufficiently interested in and/or puzzled by a question (taking into account the context in which it arises) may be motivated to speculate—think creatively or imaginatively—about a solution (or, at least, a possible way forward), but they might not be particularly motivated by the desire to find one. Where analytic or critical thinking is generally directed to establishing an independent conclusion or judgement, the satisfaction that comes from creative thinking is more intrinsic (because the outcome of creative thinking may just be the thought or idea that is created). Similarly, their thinking—which I am proposing as a type of inquiry—may not include a belief or expectation that they will reach a conclusion/solution, and this may simply not matter to them. To the extent that inquiry proceeds in such situations, it is driven largely by an ongoing curiosity or sense of puzzlement. Concerning Condition 5, I will just observe that there is plenty of room in the domain of speculative/creative thinking for the practice of such virtues as patience and persistence, as well as respecting and practising the kinds of creative and imaginative moves made by writers, poets, artists, and so forth. Self-correction, too, has its place in this domain although it would be applied rather sparingly<sup>4</sup>.

Referring back to the Question Quadrant, my position on speculative questions does not support their classification as ‘open but textual/non-intellectual’. Apart from my modification of openness to accommodate the psychological lack of settlement, rather than any more objective lack, and even allowing that the traditional context for the Quadrant was a shared literary or related text (so my example from chemistry doesn’t quite fit), it is unclear why such questions should necessarily be classified as ‘non-intellectual’. I suggest that just as the ‘closed-open’ dichotomy fails to capture anything of particular interest about the questions themselves (independently of those who ask and respond to them), a similar fate befalls the ‘textual/non-intellectual-intellectual’ dichotomy. In so far as intellectual questions call for some hard thinking on the part of respondents, there is no reason to rule that speculative questions—even those arising from texts—are non-intellectual. Cam’s comment that ‘It is hardly surprising that if we want to stimulate inquiry in the classroom, then open intellectual questions would serve us best’ (2006, p. 35) turns out to be a kind of tautology: to stimulate inquiry, ask

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<sup>4</sup> For Lipman, critical thinking adheres to certain criteria and is essentially inward-looking and self-correcting, in contrast to creative thinking which involves an element of ‘going beyond’ and is thereby *self-transcending*. See Lipman 2003, Chapters 10-11.

questions which lead to—open up—powerful thinking. Taken by itself, the label ‘open intellectual’ does not designate a particular kind of question in terms of disciplinary context.

**A question dealing with an empirical issue (matter of fact):** As I have already noted, it is this type of question which is, rather simplistically, classified as ‘intellectual but closed’ in the Question Quadrant, implying that it is not a suitable precursor to genuine inquiry (just ‘Ask someone who knows the answer’; Cam 2006, p. 36). However, notwithstanding my own long-standing and passionate commitment to doing philosophy with young people, I see little value in restricting concepts of openness and inquiry to philosophy alone; after all, even such pioneers of the collaborative inquiry method as CS Peirce referred to scientific inquiry as *the* paradigm case (Lipman 2003, p. 20). In this paper I have tried to show that the idea of *settlement*—as in open questions do not have settled answers—is unclear or equivocal, because in assuming that being settled/unsettled is an objective state of affairs referring to the existing state of knowledge among relevant experts, it ignores a powerful motivating factor in those to whom the question is addressed—most notably, students working well within the boundaries of settled knowledge. This is easily confirmed once we look at the dispositions of inquiry which we have been considering. First, assuming that those involved—i.e. teacher and students—have a reasonable degree of awareness as to what they do and do not know/understand about the subject matter (something which will doubtless vary considerably from one student to another)<sup>5</sup>, questions designed to provoke inquiry may readily be constructed from within what Vygotsky termed the appropriate ‘Zone of Proximal Development’, i.e. that area of a discipline lying beyond the power of students simply to recall or recite (which would simplify the level of the question to something similar to reading comprehension) without some form of assistance or guidance, but not so far beyond as to confuse them utterly (Vygotsky 1962). Note that in a community of inquiry, guidance can come from one’s peers or the community itself; it does not have to involve the teacher. Secondly, good teachers know how to provoke first-order curiosity or puzzlement in their students by their choice of question and/or the context in which the question arises. Thirdly—and there is a crucial caveat here to which I shall return—good teachers also understand the importance of allowing the sense of curiosity or puzzlement generated in and by students to motivate them to find a solution/answer *for themselves*, thereby opening up the pathway to inquiry and avoiding either providing the correct answer to them or even encouraging them in the second-order belief that if they just wait long enough, the teacher—or a

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<sup>5</sup> For those committed to communal inquiry, this can be quite challenging. They need to avoid boring ‘smart’ students on the one hand, and losing slower ones on the other.

'smart' student—will supply it. Fourthly, if this kind of procedure is used regularly, then students will have learned from past experience that their efforts in seeking a solution—i.e. engaging in the inquiry—are likely to be rewarded by finding out the answer or, at least, making genuine and satisfying progress toward it ('Now we understand that this situation is quite similar to a previous one we have already dealt with, and so we can fairly easily work out where to go from here', etc.). Finally, there should be ample opportunities for students to apply more general attitudes appropriate to the mode of inquiry involved provided, as before, that the inquiry is not curtailed prematurely.

Empirically-grounded inquiry must, at some stage, be appraised in terms of what actually *is the case* which, in practice, means in terms of the most current findings by experts in the field. It follows that where the results of student-led inquiry are at odds with these findings it is, ideally, the teacher's responsibility to bring this fact to the students' attention. Provided that students are disposed to share this responsibility, by adhering to the appropriate procedures of the inquiry, they ought either to uncover the source of their 'mistake' and self-correct, or—and there is no reason to rule this out *a priori*—to confirm their own findings and throw down the gauntlet to the so-called experts. To this extent, the experts' views are taken into account as grist for further inquiry, not merely accepted as 'the truth'.

**A question which cannot be resolved empirically, or by creative speculation:** Here we have questions which the Question Quadrant regards as worthy of inquiry because they are both intellectually substantive and have no settled answers. In Cam's words (2006, p. 36), 'You really have to think about it'. Since the primary purpose of the Quadrant is to assist teachers in identifying philosophical questions, this classification builds on the idea that such questions are precisely those that are worth asking and exploring despite—indeed, because of—having no settled answers. How well do such questions qualify as candidates for inquiry, given my own account of what 'settled' means? Very well it seems, although there is also a caveat which needs to be noted. First, as with substantive questions of fact, it should not be difficult to identify questions whose answers are unknown, particularly if they belong to a subject area—notably, philosophy—which is often characterised as the discipline with no settled answers—even among the so-called 'experts'. Secondly, there is plenty of evidence to suggest that young people—including very young children—are often curious, puzzled or intrigued about many of the things around them that adults take for granted—either because the latter feel that they understand what is going on or because they are no longer curious enough to care. If we listen with a 'philosophical ear' to children's questions and

expressions of wonder, we pick up conceptually-laden concerns as well as empirical ones ('What would you find at the end of the universe?', 'My dog knows who I am but he doesn't seem to know who he is', 'Maybe I'm real in my dreams and make-believe when I'm awake' (a follow-up question to this comment), 'So which one are you right now?'). Perhaps those posing such questions and comments are seeking answers from a wise parent or teacher; but perhaps they are issuing an invitation to 'play' a game of sorts: one of ideas or thoughts rather than material objects. That games are meant to be *enjoyable* in no way excludes them as candidates for inquiry. Thirdly, parents and teachers who themselves care about such questions and appreciate their value (not all do, including those whose sense of status or authority depends on being able to provide the correct answer when called upon) will likely channel children's curiosity to motivate them to think about how to find a solution, especially once the latter realise that these wise authority figures do not know always know the answer themselves.

Before looking at Condition 4, which warrants particular attention when applied to this kind of question, I note that philosophical or conceptual questions are particularly likely to call for the intellectual dispositions identified in Condition 5. When empirical methods and speculative thinking do not suffice, we need to turn to more abstract thinking and reasoning tools whose application requires persistence and patience, because progress—and the satisfaction that it brings—cannot be measured by coming up with *the* accepted answer or solution. Moreover, many of the procedures appropriate to, and self-consciously taught through, philosophical inquiry—those involving argumentation, conceptual distinctions, a Socratic determination to keep questioning, searching for alternative possibilities—are also important to, but not always taught through, modes of inquiry in other disciplines.

### **The 'illusion of settlement'**

Condition 4 is problematic when it comes to questions which are neither empirical nor purely speculative, precisely to the extent that they are characterised as questions with no settled answers. Many children, like many adult philosophers, are content to discuss philosophical questions indefinitely, without the expectation that, at the end of the day, they will have arrived at—and, presumably, agreed upon—any solutions. Others, however, may not relish the prospect of an inquiry which never ends, preferring either to give up in frustration ('This is going around in circles'; 'There are no answers so what's the point?' ...) or not to begin in the first place. Again, pointing out to students that the questions about which they are deliberating have been around for thousands of years and never satisfactorily answered is likely to appeal to some ('Wow! We are really

having a dialogue with Plato (etc.) here') but not others. It is easy to dismiss the negative side by pointing out that this is what happens when students are spoon-fed solutions or spend their school lives answering questions and solving problems that, as they well know, have been answered and solved by thousands before them. However, such a response is not altogether convincing because, irrespective of the epistemological status of questions that really do not have settled answers, there is a separate expectation and corresponding belief on the part of those engaged in an inquiry, that if we just keep trying, we will, indeed, find a solution and, thereby, conclude the inquiry. Why bother asking questions in the first place if we are already convinced that there are no answers?

I had long thought that the only decent response to the conundrum posed by this last question was to advise inquirers to adjust their cognitive expectations and beliefs away from the unrealistic prospect of *the* right or final truth of the matter, toward more modest objectives. Two such objectives come to mind; one substantive, the other procedural. On the one hand, student inquirers should celebrate those occasional 'light bulb' or 'aha!' moments that signify both a breakthrough in their *understanding*—made by one or more students but, hopefully, shared with the whole inquiring community—and a resting point or *plateau* on their journey toward finding a solution ('So there are three types of reality', 'I can see now that the mind can exist without being an actual object', 'So both intention and outcome are important elements to consider when making ethical judgements' ...). On the other hand, they can celebrate mastering a new *procedure* (argument by analogy, identifying hidden assumptions, even asking a philosophical question ...) that will likely assist them in future inquiries. Needless to say, such objectives tend to be complementary: mastering a new procedure leads to a new and important substantive realisation, and so on.

While I stand by these ways of modifying our original expectations when faced with philosophical questions, I now think that something further may also be needed—or, at least, helpful. It brings us back to the idea that a key aim of any inquiry is to arrive at some kind of *settlement* which, as I have explained, has both psychological and more objective epistemic aspects. For surely the settlement aimed for refers to the original question itself, i.e. as a *whole*, not just in part, and not just some procedural gains along the way. In this respect, philosophical inquiry with students is not so different from that which engages professional philosophers (and, needless to say, teachers of philosophy). When embarking on a philosophical inquiry, we may need to play a different *game* which can be called 'entertaining an illusion of *settlement*'; that is, we proceed with the same kind of dispositional state of mind as we would in an area such as science, where

there is a clear assumption that if only we had sufficient time, energy, and patience, we *would indeed* come up with a solution. That we do not, in fact, find a solution does not dent our commitment to ongoing inquiry, as long as we continue to entertain the same illusion. Moreover, we deem the inquiry as justified and worthwhile because, when we look back and see what we have achieved, we realise we have made real progress on procedural and/or substantive grounds, as discussed above.

A related point needs some clarification here. In so far as teachers want to encourage their students to focus more on philosophical questions, I do not think that characterising the latter as questions with no settled answers is particularly helpful. I am thinking here of the reasons already noted (we need something like an illusion of settlement to make the inquiry seem worthwhile), but also because of one further point, namely, that it is not at all clear that all philosophical questions have no settled answers (or, conversely, that all questions with no settled answers are philosophical). As someone who had hitherto characterised philosophical questions as those whose answers are 'eternally contestable', I concede this point with some reluctance. Still, if we think of philosophical puzzles such as those concerning the concept of identity (*The Ship of Theseus* and Heraclitus' claim that 'You cannot step into the same river twice', are well-known examples), it does seem that once we become clear about the meanings of the key concepts involved, the puzzles can be resolved. In my terms, conceptual clarification and analysis can, at least sometimes, relieve the sense of unsettlement, both psychologically and epistemologically. In this respect such philosophical problems are akin to those in science and other disciplines, yet warrant being described as 'philosophical' because of the manner in which we seek to solve them. To be clear, I am not claiming that these problems, or the questions they generate, are not good candidates for inquiry; irrespective of whether they have settled solutions or not, the potential for inquiry rests on meeting the five conditions I have been discussing.

### **The 'illusion of unsettlement'**

There remains one key issue to deal with concerning the dispositions for inquiry that I have articulated. In my discussion of questions that deal with empirical issues (above), I referred to 'a crucial caveat' that warranted further consideration. More specifically, we need to look again at these dispositions because they are likely, in practice, to be outweighed by alternative dispositions which are strongly entrenched in classroom practice. Earlier, I alluded to the latter by referring to teachers' second-order curiosity which fuels their desire to determine if students can answer questions, rather than any first-order curiosity about the answers themselves (because in most cases, teachers

believe that they know the answers to the questions that they ask, and their students know that they know). I claimed that the potential for genuine inquiry is lessened to the extent that (i) students' overriding interest is in satisfying the teacher by providing the correct answers (i.e. the ones he or she is looking for), and (ii) even where students are encouraged to ask questions, they are inclined to ask those whom, they believe, will provide the answers. In these situations, while students may meet Conditions 1 and 2 above (awareness that they don't know the answers and genuine or first order curiosity about the questions asked), their awareness that the teacher is looking for a particular answer subverts their desire to find the answers for themselves in favour of their desire to give the teacher what s/he is looking for (or to sit back and wait until someone else does, or until the teacher provides the answer).

The good news is that this scenario is not inevitable, even when teachers are confident that they do know the answers to, and understand the issues behind, the questions that are asked. Good teachers know how to keep the spark of curiosity alive in their students, to fuel their desire to find the answers for themselves (albeit collaboratively and under guidance as appropriate), and to persuade them that solutions are, indeed, within their reach (in some cases, as discussed, this might require the illusion of settlement). They do this, I suggest, by distracting students from playing the familiar 'Can you tell me the answer that I am looking for?' game *by acting as co-inquirers and facilitators* rather than *experts* with respect to the subject matter involved. This, in turn, requires teachers to engineer a different kind of game which may be termed 'entertaining the illusion of *unsettlement*'; that is, simulating in the classroom the same kind of environment as might be found among scientists or other experts (including philosophers) working at the epistemological boundaries of their disciplines. Assuming that the questions at issue do arouse the curiosity of students so that they experience a sense of intellectual *unsettlement* and a corresponding desire to find a solution, teachers need to demonstrate, by their own practice and attitudes, that there will be no inevitable 'short-cuts' to knowledge and that the only way for students to relieve their sense of *unsettlement* is to think about the issues for themselves. The following comment nicely captures what I have in mind here: 'Good teachers ... know the set curriculum outcomes, but suspend desire for these ... allowing them to be rediscovered through [genuine] inquiry ...' (Metcalf & Game, cited in Scholl 2010, p. 6). Notwithstanding Scholl's commitment to the Question Quadrant in which 'open inquiry questions' are restricted to those with no correct answers, I am proposing, to the contrary, that suspending the desire for predetermined outcomes—in my terms, entertaining the illusion of *unsettlement*—is *the* crucial requirement for teachers who are interested in

encouraging their students to inquire, *irrespective of the subject area and the presence or absence of correct answers.*

I take it that suspending desire for set curriculum outcomes is akin to both suspending desire (on the part of students) to gain the teacher's approval by obtaining the 'right' answer, and suspending desire (on the part of the teacher) to push students toward a predetermined outcome. How, in practice, do teachers suspend such desire (their own and their students')? Not by insisting that there *is no* outcome to be obtained; as noted earlier, such insistence is likely to drain the potential inquiry of much of its interest. Nor again by requiring teachers to pretend that they do not know the likely outcome; this threatens to make the whole activity even less authentic than it may seem already. Teachers suspend the desire for predetermined outcomes by embedding questions and problems into contexts which students find intrinsically enticing, intriguing or puzzling. The expectation here is that such intrinsically motivating factors are sufficiently powerful as to subdue or divert the extrinsic desires described above. So, for example, instead of introducing a topic with specific questions that are likely to provide only extrinsic motivation (whereby students will ask themselves 'What answer is the teacher looking for?'), teachers with an eye on sparking genuine inquiry might begin by sharing a scenario or context (story, video, activity, media article, etc.) which both has a strong likelihood of puzzling, intriguing or otherwise capturing the interest of students, and is linked in appropriate ways to the subject matter that they intend to cover. They might then invite students to raise questions or comments that occur to them (along lines familiar to practitioners of philosophy for children). Of these, some may not lead very far—basic comprehension questions, for example—but others may lead to some significant inquiry and dialogue, fuelled by the kinds of dispositions identified earlier in the paper. A well-chosen excerpt from Shakespeare's *The Merchant of Venice*, for example, may generate questions about the nature of justice and mercy, the historical and cultural factors that shaped the character of Shylock, or the power and impact of stereotyping as observed by students in the present day. In a different disciplinary domain, a teacher of primary level geometry may begin a game of quoits by arranging students in a straight line and inviting them to throw the quoit over the peg. Having personally observed this particular activity, it is not long before those at the ends of the line complain that the game is unfair because they are furthest from the peg, whereupon the teacher might invite them to rearrange themselves so that fairness is restored. Thus the students are introduced, in very practical terms, to the concept of a *circle* by means of its defining property (all points on the circumference are equidistant from the centre).

**Follow-up, probing or Socratic questions**

Thus far I have aligned my discussion of questions and the dispositions conducive to inquiry with the four categories of the Question Quadrant. Since I am proposing that the state of settlement or unsettlement is the key dispositional factor in generating inquiry, it follows that the traditional distinction between closed and open questions is no longer relevant. I shall come back to this point. But there is another type of question which the Question Quadrant does not consider, even though it is highly relevant to the structure of inquiry, namely, those questions we often term 'procedural' or 'follow-up' questions (as noted in the above heading, I also associate the terms 'probing' and 'Socratic' with this type, because these are the questions characteristically employed by Socrates to explore or probe the underlying logic or direction of thinking and reasoning in his dialogues with scholars and students in ancient Athens). In our 1995 book, Ann Sharp and I actually constructed a predecessor of the current Question Quadrant using as axes 'Procedural-Substantive' and 'Closed-Open' (Splitter & Sharp 1995, p. 58). Examples of procedural questions include 'Are you implying that ...?', 'What assumption is being made here?', 'Do you agree with her reasoning?', 'If you are right about that, what would follow?', 'Can you find a counter-example to this rule?' and so on. What role do such questions play in inquiry and how well do they qualify according to the dispositional aspects I have been considering?

It is no accident that procedural questions of this type are invariably context-dependent (or *indexical*), as indicated by the open-ended '...' and use of the terms 'here', 'this', 'that', 'her' whose actual references can be supplied only by tracing them back to specific items (statements, persons, etc.) previously referred to. Whatever substantive content they have is drawn from those items and contexts. In presenting them in an abbreviated or schematic form as shown, we focus attention on their primary purpose, which is to explore or probe the logic, direction and shape of the inquiry as it unfolds. But the inquiry itself derives its content from substantive questions and responses; likewise for the dispositional conditions I have been discussing. We do not need to be overly concerned with whether or not inquirers are aware that they don't know the answer to specific procedural questions or if they induce a sense of unsettlement, so long as the substantive elements of the inquiry meet these conditions. Of course—and this is an important qualification—if it should turn out that students do not understand a particular procedural move (looking for a counter-example, identifying the argument structure used, etc.), then the procedure may become the subject of a separate inquiry. Indeed, it is a merit of philosophical inquiry that in the course of asking about the meaning of substantive terms like 'truth', 'real' or 'mind', we may find it necessary to

digress (as it were) in order to consider what such procedural terms as 'counter-example' or 'argument' mean. *All* concepts (and associated questions) are potential topics for philosophical inquiry. By contrast, teachers of science, history or literature who discover that students do not grasp the meaning or significance of certain procedural elements may find it more difficult to devote time to clarifying the latter because to do so would take them beyond the substantive boundaries of their own discipline or subject matter, and so may exceed either their own capabilities (basic logic is not a regular subject in teacher education) or the time allocated for the subjects in question.

### **Inquiry as *self-corrective* thinking**

Matthew Lipman wrote that inquiry can be characterised as 'self-correcting practice in which a subject matter is investigated with the aim of discovering or inventing ways of dealing with what is problematic' (Lipman 2003, p. 184). Good inquirers are willing to temper their passion and enthusiasm for their subject matter by exhibiting those attitudes or dispositions—intellectual humility, persistence, self-effacement, sense of fallibility, for example—which make it relatively easy for them to self-correct, that is, to acknowledge the power of a counter-argument or objection made by a co-inquirer (or perhaps themselves) and *rethink* their point of view—perhaps even their entire line of inquiry. In the absence of such dispositions, the inquiry may not even get off the ground because those involved will be reluctant to admit that there is something of concern which they do not know or about which they are less than certain. To the extent that certainty excludes the possibility of being mistaken, it is the enemy of all genuine thought and inquiry. Conversely, as can be corroborated by studying the history of scientific inquiry, the path of progress toward greater understanding and knowledge allows for—and, arguably, necessitates—making, acknowledging and repairing mistakes. In the terms of the present discussion, dogmatic and authoritarian thinking lacks the crucial sense of *unsettlement* which drives inquiry.

Dogmatism—including all forms of fundamentalism and extremism—is not the only obstacle to inquiry. To be unsettled by a question, in my sense, presupposes that we *care* about it—and, in turn, we care about finding an answer or solution or, at least, making some progress toward one. Accordingly, one can avoid the sense of *unsettlement* simply by *failing to care*, a condition often manifested by disillusioned or alienated students who feel that regular schooling has nothing to offer them. Needless to say, we cannot compel others to care but here we find one important merit of the classroom when it functions as a community of inquiry: its members develop a multi-dimensional

sense of care which embraces caring for one another as persons, caring for the procedures of inquiry (i.e. for the quality of those skills and strategies in which they engage and which they seek to master as *powerful thinkers*), and caring for the questions, topics, concepts and other elements which make up the content of their inquiry. It is this pervasive sense of care which, in turn, underlies the dispositions of inquiry that I have discussed in this paper, including the sense of unsettlement which makes inquiry possible. Students also care about other aspects of their school experience, including gaining appropriate recognition from teachers and peer group, and progressing through the various grade levels that lead to 'success'. It is unrealistic to imagine them not caring about these things; still, the prospects for genuinely powerful thinking and inquiry depend upon cultivating in them the more intrinsic sense of care to which I have been alluding (Splitter 2010b).

### **Remembering the community in 'community of inquiry'**

To reiterate a point made earlier, my discussion has not addressed all salient issues concerning the nature of inquiry. In particular, I have not commented on the thesis that inquiry, like thinking itself, is internalised as a *social* practice in which forms of linguistic expression and communication—notably, dialogue—are essential ingredients. Elsewhere, I have defended this thesis on both empirical and conceptual grounds (in line with the thinking of a broad range of scholars including Peirce, Mead, Vygotsky, Bakhtin, Dewey, Habermas, Gadamer, Taylor, Lipman and Davidson - Splitter 2015 Chapter 7 includes a detailed discussion of this issue, together with references to the writers named in the text). I simply note here that these social and inter-personal dimensions of thinking and inquiry are needed to make sense of such psychological, affective and epistemological elements as questioning, a sense of settlement/unsettlement, self-awareness and self-correction.

### **Conclusion: Whither the Question Quadrant**

I have argued against adopting a hard-and-fast dichotomy for 'closed' and 'open' questions, preferring instead to associate the openness indicative of inquiry in any subject or discipline with the need for a shifting sense of *unsettlement*. Likewise, I expressed scepticism in relation to the 'textual-intellectual' dichotomy on the grounds that both speculative and perhaps even comprehension questions of sufficient complexity could engage students in powerful thinking and inquiry. It follows, then, that we ought no longer to use such descriptors as 'intellectually closed', 'intellectually

open', 'research', and 'inquiry', to highlight what is special about one form of inquiry — including philosophical inquiry. I commented earlier about the perils of ruling out, by fiat, the possibility of genuine inquiry in the empirical sciences. I might add here that, conversely, restricting the term 'research' to the empirical domain plays neatly into the hands of academic institutions which stubbornly refuse to accept that philosophers, like many others in the humanities, are engaged in research at all! Returning to the Question Quadrant, I propose something along the following lines which, while it lacks the symmetry and elegance of existing versions, captures more precisely how inquiry depends upon key dispositional shifts. Inquiry moves from unsettlement to settlement, although as I have explained, teachers play an important role in facilitating these transitions; notably, when the question or problem does have a settled solution in the general and/or expert context, they may encourage the *illusion of unsettlement* in order to push the inquiry forward; but when the issue is generally regarded as unsettled — as in the case of many philosophical questions — they may open the gateway to inquiry by encouraging the *illusion of settlement* as a realistic prospect. In so far as we want a classification of questions to preserve the demarcations among different types of question — comprehension, conjectural, empirical and philosophical, for example — we will need to ask how these categories are defined and how these definitions lead to different kinds of questions. I have suggested that at least three of the four question types could open up an inquiry (comprehension questions may lack the depth or complexity required and, in any case, may not lend themselves to cultivating a sense of unsettlement, or even the illusion of one), but the inquiry in each case will be characterised by the discipline in question (scientific questions are explored by utilising tools and procedures of scientific inquiry, *mutatis mutandis* for questions which draw on other disciplines, including philosophical and even speculative questions). In the specific case of philosophical questions (for which the Question Quadrant was designed), even when the general structure of inquiry and its underlying dispositions is elucidated, teachers and students may still want to understand what makes a question *philosophical* and here, we will need to direct their attention to such elements as conceptual analysis and the sub-disciplines of philosophy (metaphysics, ethics, epistemology ...) with respect to which key questions and concepts may be constructed and classified.

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