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# Considerations Toward a Theory of Student Engagement

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## ABSTRACT

Is a student's being engaged a short-lived event (as the emotion of anger is) or a long-lived one (as the emotion of grief is)? Does being engaged involve a primitive cognitive process (e.g. fear of a snake in one's path) or does it involve a sophisticated cognitive process (e.g. fear of looking unproductive in front of one's superiors). Does being engaged involve strong motivations to act, and if so, to do what? Student engagement theories chart a messy terrain, which have resulted in higher education researchers sometimes talking at cross purposes. Part of this paper's aim is to organise and offer a useful taxonomy of extant theories of student engagement. Three types of theories can be discerned from contemporary literature—what I call emotion theories, cognitive theories, and motivation theories. This paper argues for a functional student engagement theory that combines all three components. The implications of such a student engagement theory or framework are discussed in the paper's penultimate section.

**Keywords:** Student engagement, higher education research, educational psychology, curriculum design

## 1. INTRODUCTION

Student engagement is a strong predictor of positive academic and life outcomes. Students who are engaged in classes or find what they are learning engaging enjoy better class attendance, are less likely to drop out of school, and more likely to show progress in learning and perform well academically (Finn, 1989; Klem & Connell, 2004; National Research Council & Institute of Medicine, 2004; Ladd & Dinella, 2009); this is true even for students from historically disenfranchised groups (Finn & Voelkl, 1993). Engaged students are also reportedly happier and less likely involved in delinquency, substance abuse, and risky sexual behaviour (O'Farrell & Morrison, 2003; Antaramian et al., 2010; Bundick et al., 2014). Indeed, some claim that student engagement is a prerequisite for any effective learning to be possible (Steinberg, 1996; Finn & Rock, 1997; Osterman, 2000; Chen, 2005; Wang & Pomerantz, 2009); this is especially true when students are attempting to master something unfamiliar, say, playing a musical instrument or learning a foreign language (Reeve, 2012). Given these findings, it should be an uncontroversial claim that there is much value to be had when students are engaged.

If student engagement is so valued, what then have researchers said about the strategies of bringing about engaged students? An increasingly popular view holds that both teachers and *students* play important roles in designing engaging curriculum (McMahon & Portelli, 2004). An even broader view assumes that *dis*engagement results from an unhealthy emphasis on competition, solitary learning, order, and discipline (Eccles et al., 1993; Osterman, 2000; Skinner et al., 1990).[1] The proposed solution is that engagement requires coordinated work by entire learning communities or that "[e]ngagement is not an aspect of the student psyche alone. If students are to be engaged in their learning, other key players in the process, particularly teachers and administrators, must be engaged as well" (Smith et al., 1998, p. 10)—such a view emphasises the learning environment's importance, where both formal and informal socialisation processes occur, which in turn foster closer interpersonal relationships and encourage cooperation in learning (Corso et al., 2013).

While much has been written about student engagement's value and how lessons, course material or tutors can be engaging, less has been said about what *exactly* is or should be meant by 'student engagement'. It is commonly said that engaged students are those who are attentive and actively participate in class discussions (Skinner & Belmont, 1993; Marks, 2000; Fredricks et al., 2004). Even if such observations are true, one wonders what *more* can be said about the engaged student and how educators can attempt to *foster* greater student engagement. What exactly do we or should we mean when we invoke the notion of 'student engagement'? Is being engaged a type of *feeling*? Is this feeling identical or related to emotions like excitement, eagerness, enthusiasm, or ecstasy? Perhaps a student's being engaged is more a *cognitive* state, closer to a *perception* or *belief* that, say, the tutor is well-informed or the lesson delivered is an important one. Perhaps student engagement is neither a feeling nor a perception, but a state of being *motivated* or *disposed* to act in ways that enhance one's educational experience.

This paper seeks to answer these questions by proposing a student engagement theory principally meant for the higher education context. This task is important not only because of the reasons described in the opening paragraph (e.g. student engagement is a strong predictor of positive academic and life outcomes), but also because student engagement figures prominently in evidence-based teaching and learning reflections (Chickering & Gamson, 1987; Glassick et al., 1997; Felten, 2013), peer review evaluations (Gleason & Sanger, 2018) and, in some universities, is a key criterion for handing out prestigious teaching awards [NUS Outstanding Educator Award (OEA), 2022].

The paper's structure begins by reviewing what education research and educational psychology authors have said about student engagement. Readers will observe that much discussion of student engagement maps a fairly disorganised conceptual terrain. This paper's first task, therefore, offers a taxonomy of extant student engagement theories. We argue that they can be categorised into three distinct pillars: student engagement as a type of feeling or emotion; student engagement as a cognitive state; or, student engagement as a type of

motivational state. Having reviewed the literature, I proceed to determine if a unifying structure, which strings all three theories into a principled coherent whole, can be found. This unifying structure, as I hope to show, can take the *form* of a theory of mind that has inspired intense discussion by psychologists, cognitive scientists and philosophers: namely, *functionalism*.[2] This paper concludes by drawing several pedagogical implications of the functionalist theory or framework of student engagement.

## 2. SUMMARY OF THE ARGUMENT LEADING TO A THEORY OF STUDENT ENGAGEMENT

"[W]e feel sorry because we cry, angry because we strike, afraid because we tremble, and not that we cry, strike, or tremble, because we are sorry, angry, or fearful", so said William James, who played a founding role in developing modern-day psychology (1884, p. 190). However, when a student is engaged, what exactly is the specific target or object of her engagement? Indeed, what exactly do we mean when we say a student is *engaged*? I propose that we first marshal a set of ordinary intuitions laypersons might have about student engagement, and refine this in light of researchers' perspectives of the notion. Our existing intuitions surrounding 'student engagement' appear to be several in kind. First, it is plausible that there is no one unique target or object of student engagement—students can be engaged by the lesson's content, the tutor's delivery of the content or indeed, the tutor herself (hereinafter, broadly referred to as the 'eliciting circumstance'). Second, when a student finds a lesson engaging, she feels some excitement, interest, anticipation, eagerness, etc. about or towards the eliciting circumstance; this feeling may be phenomenologically a pleasant one, and may be correlated with observable behaviour—raised upper eyelids, lack of small movements conveying impatience or annoyance, and so forth (Weimer, 2016; Gleason & Sanger, 2018; Fulton, 2019). Third, the engaged student may also evaluate the eliciting circumstance to be interesting, meaningful or worthy of her attention; this evaluative judgment may cause or reinforce in the student a range of motivational states that promote learning. Setting aside our ordinary intuitions for the moment, I now summarise the three main steps that I will, in the following sections, undertake to formulate a plausible student engagement theory consistent with the ordinary intuitions just canvassed.

First, I extensively reviewed the literature concerned with definitions or conceptual summaries of student engagement offered mainly in educational research. My selection of literature is partly done according to the 'snowball' sampling method—picking out the definitions or conceptual summaries from a sampling of widely-cited publications, I review works cited by these publications to mine a greater number of definitions or conceptual summaries.

The second step is to determine the *salient themes* that exist in an otherwise messy conceptual terrain amassed from the literature review: this thematic identification process involves looking for repeated occurrences of certain keywords or larger clausal units. Doing so, as we shall see in Section 3, reveals an interesting finding—extant student engagement theories can be classified into a threefold division of emotion, cognitive, and motivation theories.

This threefold categorisation of student engagement theories deepens our understanding of the notion, but—insofar as the goal here is theory construction—we are still short of identifying a *unifying* structure. The goal of the third step of my argument is to identify a structure that strings the three main classes of theories together. In Section 4, I argue that what has gone unnoticed in the literature is that the three main classes of student engagement theories describe mental and behavioural ingredients that are remarkably similar to a widely popular theory about the mind or mental states, known to psychologists, cognitive scientists and philosophers as *functionalism*.[3] Accordingly, I propose that functionalism can help us connect the dots. What remains of Section 4 is further expanding and refining this functionalist student engagement theory with research from educational psychology, which incidentally is fully consistent with and indeed, an explanation of the pre-theoretical intuitions we began the inquiry with.

I should emphasise that this paper's primary goal is to clarify and organise the notion of student engagement in a way that is as detailed as possible, given what we know from educational research and psychology, amongst other disciplines. One virtue in enhancing our understanding of student engagement is that with a plausible and coherent theory or framework, we allow for greater interdisciplinary research into the concept; for, the systematicity of a theory reduces occurrences of commentators talking at cross purposes, and the theory's components and processes encourage further research and exchange of ideas. Having said that, in Section 5, I conclude by drawing several pedagogical implications of the theory. These implications are relevant to tutors intending to enhance student engagement in their classes as well as university administrators intending to better document evidence-based teaching effectiveness.

## 3. THREE THEORIES OF STUDENT ENGAGEMENT: EMOTION, COGNITIVE, AND MOTIVATION

### *Emotion theories*

Supposing that being engaged is a type of *feeling* or *emotion*, what is the felt quality or phenomenology of this feeling? Newmann et al. assert that "[e]ngagement is a construct used to describe an *inner quality of concentration*" (1992, p. 13, emphasis added); other authors describe engagement simply as the experience of 'interest' towards the eliciting circumstance (Skinner & Belmont, 1993; Marks, 2000; Fredricks et al., 2004). In relation to the 'affective theory of learning', Tobias (1995) and Schiefele (1991) were amongst the earlier educational psychologists who appreciated how feelings of interests are powerful emotional precursors for learning (see also Weber et al., 2001). Yet other authors describe engagement as involving a sense of group solidarity that occurs when "students internalize the *feeling* that they 'belong' in school…that they are a conspicuous part of the school environment and that school is an important aspect of their own experience" (Finn & Voelkl, 1993, p. 250, emphasis added).[4] A more common view is that students are engaged when they enjoy or are hopeful about their learning experience. This is a view suggested by findings of numerous widely-cited educational psychology publications which posit that high-achieving students tend to experience positive emotions—such as hope and enjoyment—as opposed to negative emotions such as shame, boredom, anxiety, and hopelessness (Pekrun & Elliot, 2009; Pekrun & Linnenbrink-Garcia, 2012; Villavicencio & Bernardo, 2013). In another widely-cited paper in affective science, researchers found that students who experience certain positive emotions and moods are more creative and are therefore more effective problem-solvers (Isen et al., 1987). Let us call the class of theories—where student engagement *only* involves feelings or emotions of some sort—'emotion theories'.

Emotion theories of student engagement are successful in accounting for ordinary intuitions we have about the phenomenological experience of participating in an engaging lesson or being in the presence of an engaging tutor, e.g. students *feel* a sense of anticipation, excitement, and there may be a focusing of attention or an exertion of that 'inner quality of concentration' (Weimer, 2016; Gleason & Sanger, 2018; Fulton, 2019). And, insofar as experiencing these feelings tends to crowd out negative emotions such as boredom and frustration, student learning may be promoted. Emotion theories, in short, offer a natural explanation for why student engagement is pedagogically valuable or why educators should design or aim for engaging lessons—students learn better.

### *Cognitive theories*

Perhaps a student's being engaged does not involve her experiencing feelings or emotions of some sort; instead, perhaps it involves only her possession of some complex *cognitive* skills (e.g. capacity for critical thought or reflection) or her *believing*, *perceiving* or forming the *evaluative judgment* that such-and-such is the case (e.g. the lesson is useful, meaningful or insightful). Let us call theories asserting that student engagement necessarily

*only* involves a student's possessing some complex cognitive skills or assenting to some evaluative judgments 'cognitivist theories' of student engagement. Commentators agree that "[e]ngagement recognises students' *internal thoughts and beliefs* about being engaged…" (Corso et al., 2013, p. 52, emphasis added), and that student engagement is *goal-driven* (Strong et al., 1995). In other words, there is some consensus amongst educational researchers that a necessary condition of student engagement is that students form the evaluative judgment that some aspects of their learning are important, meaningful or instrumental to securing certain goals or desires they already have (Eccles et al., 1983).

The claim that student engagement is a function of the degree of importance or value a student places on the eliciting circumstance, given their interests or desires, is a highly plausible thesis that also explains the widely shared observation amongst educators that students who are *not* engaged *can* be coaxed or 'talked into' being engaged, which makes sense only if there is a cognitive component to student engagement. A second merit of cognitivist theories is that some cognitive component is necessary to account for another widely shared observation about engaged students, namely, that such students are also motivated to partake of those means that advance their learning.

### *Motivation theories*

It is one thing to claim that cognition of some sort is necessary for student engagement, and quite another to claim that *only* cognition is necessary, as cognitivist theories would have it. For, if student engagement were only the presence of some sort of cognition, we risk leaving unaccounted for the widely-held observation that an engaged student is *also* one who is *motivated* to do such-and-such: as one author writes, "engaged students attend their classes, try reasonably hard to do well in them, complete the homework they are assigned…" (Steinberg, 1996, p. 67). According to Reeve (2009a), student motivation, at its most abstract construal, refers to that which "energizes and directs behaviour" (pp. 8, 21), where the behaviour in question, according to Reeve and other scholars, refers to a student's engagement in learning activities (Connell & Wellborn, 1991) often because such a student "is interested in doing well in school…[and possesses] a strong *motivation* to achieve" (Steinberg, 1996, p. 70, emphasis added). We also see~~n~~ an attraction towards what I label a 'motivation theory' of student engagement in authors like Newmann et al. (1992), when they claim student engagement involves a learner's "*effort* to learn" (p. 13, emphasis added) or a student's "psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skill, or crafts that academic work is intended to promote" (p. 12).

### *Hybrid theories*

What I call 'hybrid theories' are by far the most widely-held student engagement theories. The literature review suggests that authors are divided between two types of hybrid theories: on one hand, there are theories positing that student engagement involves *all three* components of emotion, cognition and motivation; on the other hand, there also exist more parsimonious theories requiring only cognition and motivation.[5] Advocates of the former more encompassing type include Fredericks et al. (2004), Jimerson et al. (2003), Reeve (2012), and authors of a study commissioned by America's National Research Council and Institute of Medicine (2004). According to this more encompassing hybrid theory, student engagement involves a feeling or emotion component (e.g. presence of interest and enthusiasm), a complex cognitive component (e.g. mastery of learning strategies, active self-regulation), and a motivation component (e.g. being persistent while facing academic challenges).

More parsimonious hybrid theories are ones that require only cognition and motivation. McMahon and Portelli (2004), for instance, posit that student engagement involves "[a] certain *conception* of academic achievement or a process identifiable by behavioural traits and/or observable *psychological dispositions*" (p. 62, emphasis added). They believe that engaged students perceive value in academic success and as a result, are motivated to pursue such a value; indeed, this claim is consistent with Strong et al.'s (1995) assertion that engagement

involves the setting and achieving of academic goals. Further, Guthrie and Wigfield (2000) may be read as asserting such a hybrid theory when they claim that engagement comprises a 'mixture' of "student competence, motivation, and social interaction" (p. 412). Indeed, the 'social interaction' here can be interpreted as the resulting social behaviour of students endowed with 'cognitive competence' and 'motivation'.

## 4. CONSIDERATIONS TOWARD A THEORY OF STUDENT ENGAGEMENT

The above review of extant student engagement conceptions lays the groundwork for a student engagement theory. We saw that the conceptual terrain divides itself between emotion, cognition, motivation (and hybrid) student engagement theories—a disparate list of three main classes of theories. This section determines if there exists some conceptual *order* or *structure* amongst these three classes of theories; for, in the absence of the determination of some such order or structure, what we currently have is a taxonomy or list of student engagement theories without some deeper reason as to why we have *this particular* taxonomy as opposed to a different one. And, if we are not able to ascertain what this deeper connection is that strings the classes of theories together, educators then lack a principled justification for picking one theory over others when designing courses that attempt to promote student engagement or studies that aim to measure student engagement.

What has gone unnoticed in the literature is that the three classes of student engagement theories describe mental and behavioural ingredients that are remarkably similar to *functionalism,* the theory that helps us connect the dots, as I shall now aim to show.

A succinct explanation of functionalism runs as follows:

> Functionalism is the doctrine that what makes something a thought, desire, pain (or any other type of mental state) depends not on its internal constitution, but solely on its function, or the role it plays, in the cognitive system of which it is a part. More precisely, functionalist theories take the identity of a mental state to be determined by its causal relations to sensory stimulations, other mental states, and behaviour. (Levin, 2021, section 1).

Unlike the earlier 'behaviourist' theory of the mind (Malcolm, 1968; Ryle, 1949) which it replaces, functionalism does not hold that mental states are reducible to mere human behaviour and behavioural dispositions; rather, functionalism holds that what a mental state is depends on the causal sensory inputs, internal states and behavioural outputs of an agent, and the causal relations among these three ingredients (Putnam, 1960, 1967; Dennett, 1991; Shoemaker, 1975). So, while psychological behaviourism identifies the mental state of being in pain with, say, a disposition to wince or moan, functionalism identifies the state of being in pain as follows:

> *Pain* is the state that tends to be caused by bodily injury, to produce the belief that something is wrong with the body and the desire to be out of that state, to produce anxiety, and, in the absence of any stronger, conflicting desires, to cause wincing or moaning. (Levin, 2021, section 3).

To better understand the theory, here is a diagrammatic representation of the state of being in pain (Figure 1):

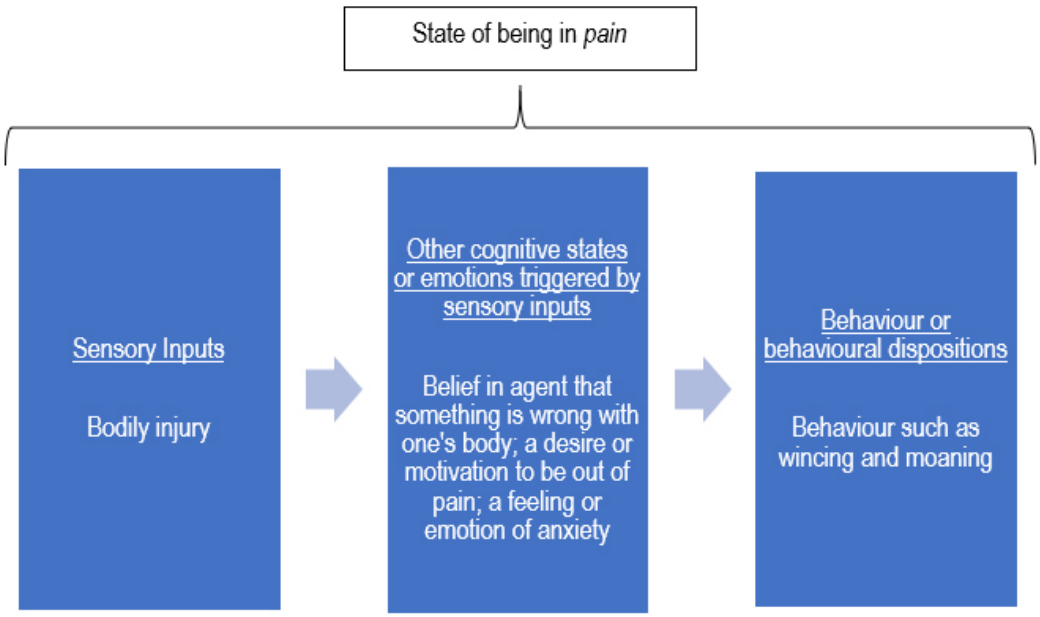


*Figure 1.* Diagrammatic representation of the state of being in pain to explain functionalism.

To be sure, there are many varieties of functionalist theory of mind, but these need not concern us as much as Figure 1, which presents a *structur*e that allows for an appreciation of student engagement as suggested by the hitherto disparate dots that are the emotion, cognitive, and motivation theories. I propose that the notion of student engagement describes the following structure (Figure 2):

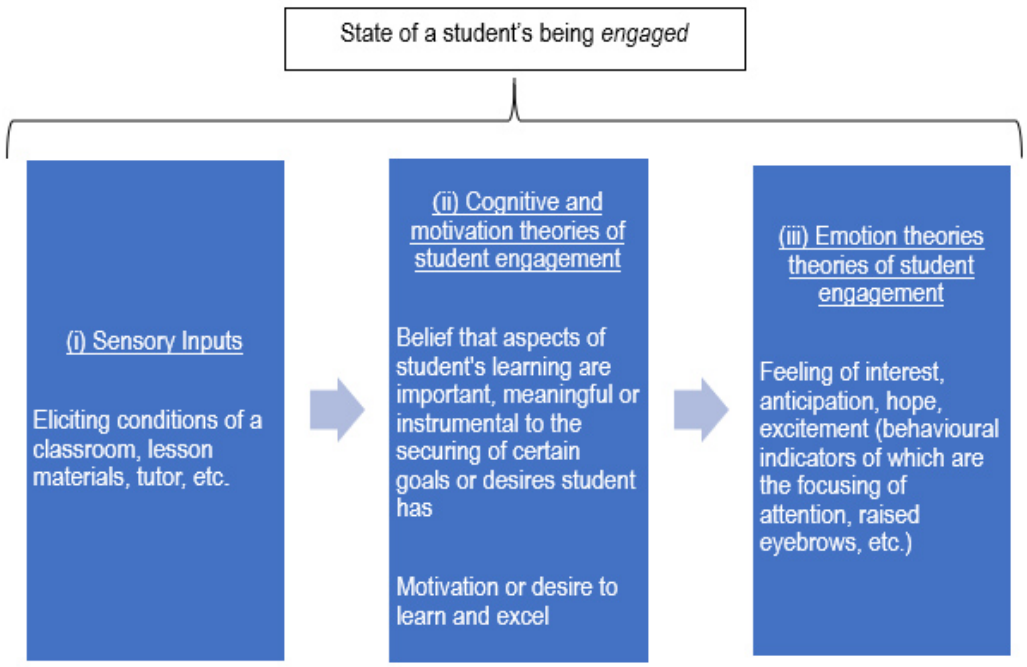


*Figure 2.* Diagrammatic representation of the causal relations between the student engagement theories.

The structure essential to a functionalist theory of mind helps us see important *causal relations* between the student engagement theories (indicated by the *arrows* in Figure 2). More summarily, I propose that a student's being engaged can be understood as a *set of causal relations* between (i) the sensory inputs of the eliciting conditions, (ii) the conditions described by cognitive and motivation theories of student engagement[6] and (iii) those conditions described by emotion theories.[7] The functionalist theory is a useful structure to synthesise the three main student engagement theories. Figure 2 offers a preliminary sketch of ingredients that go into each component of this functionalist student engagement theory. In what follows, I draw liberally from psychology and the affective sciences to expand on the ingredients of the theory being forwarded here.

### *Evaluative judgments of the cognitive component*

I rely, at this point, on Magda Arnold's (1960) writings, which gave pride of place to *cognitive* processes in her pioneering research into the psychological structure of emotions. To extend Arnold's work to our discussion, we posit that student engagement begins with the formation of evaluative judgments—or what Arnold calls 'appraisals'—that the eliciting circumstance (e.g. lesson being delivered) is meaningful, beneficial, or valuable. This appraisal is no one-off episode but a dynamic process comprising a series of *re*-appraisals of the eliciting circumstance that tracks its changing qualities over time. A student is engaged only if this continuous re-appraisal process largely settles on the positive appraisal that, say, the lesson is meaningful, beneficial or valuable. This is consistent and indeed, a deeper explanation of educational researchers' commonly held view that engaged students are those who form the evaluative judgment that aspects of their learning or learning environment are important, meaningful, or instrumental to securing certain goals or desires (McCombs & Pope, 1994; Strong et al., 1995; Corso et. al., 2013).

However, a positive appraisal of the eliciting circumstance is insufficient for a student's being engaged. I draw from Richard Lazarus' (1991) research, which extends Arnold's work by offering a more fine-grained structure of the cognitive appraisal process. To extend Lazarus's work to the task at hand, I claim that an engaged student appraises an eliciting circumstance as one that possesses qualities she considers relevant to and congruent with her aims, beliefs and desires, that her sense of self is implicated in a way that she deems productive or virtuous,[8] that she believes herself able to cope with challenges the eliciting circumstance poses, and there is expectation of future credit, benefit or value from interaction with the eliciting circumstance. The foregoing analyses echo findings from educational psychology, that high-achieving students tend to form the evaluative judgment that their learning process and academic achievements are valuable or meaningful (Pekrun et al., 2010), and that one is *able* to perform well and do well with effort (so-called 'academic self-efficiency') (Mega et al., 2014).

### *Skills or competencies of the cognitive component*

Recall from the foregoing paragraphs that a student's positive appraisal of an eliciting circumstance requires that she believes herself to have the *means of coping* with challenges the circumstance poses. What are we referring to when we speak of such means? It was found from educational psychology research that students who possess the following complex set of cognitive skills are more likely to do well academically (Pekrun, et al., 2010; Pekrun & Linnenbrink-Garcia, 2012): flexible learning strategies (e.g. reorganising, reinterpreting or representing lesson material in ways familiar to oneself), higher-order critical thinking (e.g. abstraction, categorisation, identifying causal relations), creative thinking (e.g. holistic ways of problem-solving, avoiding overly-detailed and analytical means of problem-solving), and so forth. This list is far from exhaustive, but it allows us to draw the following important implication: a student will form the judgment that, say, a lesson is valuable, but only if she possesses (or is coming to possess) a relevant set of effective learning skills that allow her to cope with content or assignments associated with that lesson.

### *Motivation component*

Recall from the literature review the claim by numerous authors that the engaged student is one who is motivated to learn (Skinner & Belmont, 1993; Marks, 2000; Fredricks et al., 2004), achieve academically

(Steinberg, 1996, p. 70) and exhibit content mastery (Connell & Wellborn, 1991; Newmann et al., 1992). These claims should be near-truisms by now. In contrast, what is less widely known (especially amongst laypersons) is that the more *autonomy* students are granted in their learning process, the more engaged they become. A study about the learning needs of developing middle or secondary school students,[9] claimed the following:

> A fundamental principle in the development of motivation and reading engagement is support for students' autonomy and decision making… Adolescent students seek independence, decision making opportunities, control over learning activities, and independent thinking, but these processes are curtailed by typical middle school reading practices, resulting in disengagement. (Guthrie & Davis, 2003, p. 68)

To foster student autonomy, Cothran and Ennis (2000) suggest that classrooms can be engaging if tutors present numerous learning opportunities for their students and are also enthusiastic about allowing students to be part of decision-making processes, especially on matters related to lesson content and assessment methods. Relatedly, it is not simply the autonomous student who tends to be engaged, it is also the student who gets to exercise her intellectual curiosity and creativity, especially with respect to her prescribed assignments or activities (Strong et al., 1995).

Indeed, psychological studies show that high-achieving students express their motivation to learn and achieve academically by exercising the following specific dispositions: attend to matters relevant to the task at hand (as opposed to matters irrelevant to the task), be autonomous in learning and less reliant on others (so-called 'self-regulation'), continually acquire new knowledge and skills, and demonstrate their competence or ability by outperforming others (Pekrun et al., 2010; Mega et al., 2014).

## *Emotion component*

Research in educational psychology shows that emotions such as enjoyment, hope and pride are derived from or are the causal results of a student's judgment of the value of learning and her possession of cognitive skills, such as those related to content mastery that allow her to achieve academically (Pekrun et al., 2010). In addition, psychologists Mega et al.'s (2014) study shows that positive emotions are conducive to student learning, but *only when* students themselves are 'self-regulated learners' who consider learning a controllable process. Such research strongly suggests that the emotion component forms the causal upshot that bookends a functional student engagement theory.

By synthesising the above discussion with earlier findings from our literature review, the student engagement theory can be fleshed out further (Figure 3):

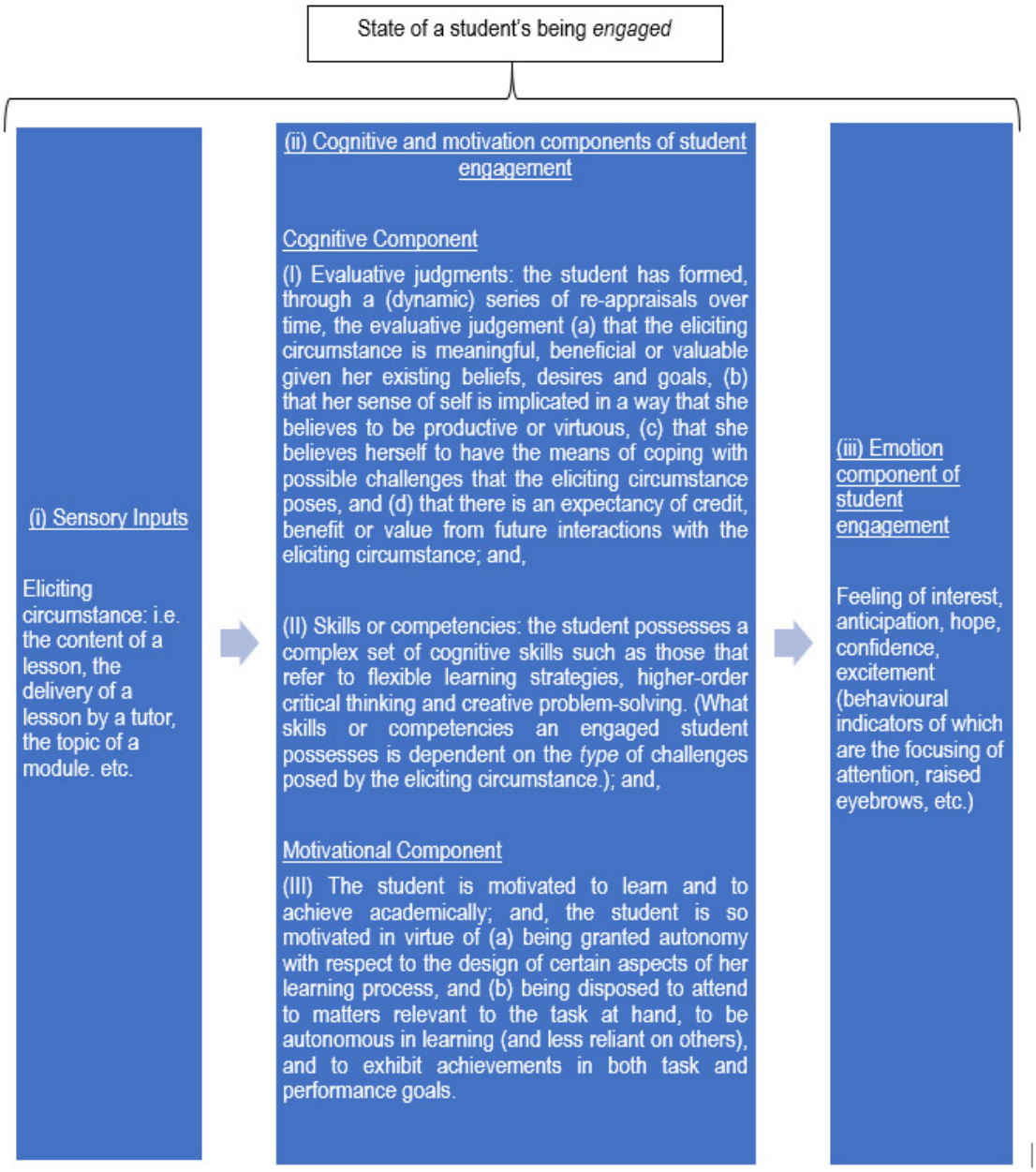


*Figure 3.* Elaboration of the functionalist theory of student engagement.

The cognitive and motivation components are mutually dependent in that no one component is a causal antecedent of the other (Figure 3); also, the degree of assent a student has towards the four elements (a)—(b) in Cognitive Component (I) in Figure 3, *and* her level of competence in the skills mentioned in (II) are jointly proportional to the degree of her motivational states described in (III). The proposed functional theory allows us to make sense of what Reeve (2012) calls 'agentic engagement' that consists of a student's "intentional, proactive, and constructive contribution into the flow of the instruction they receive' receive" (2012, p. 161). Reeve argues that the engaged student is one who "tries to enrich the learning experience…rather than just passively receive it as a given." This attempt by the student to enrich her learning experience has, according to Reeve, a positive feedback effect that reinforces future motivation states—the engaged student becomes increasingly engaged whenever the eliciting circumstance occurs in the future:

> Fully engaged involvement includes not only reacting to learning tasks given by showing more or less persistence, enjoyment, and strategic thinking, but also initiating a process where students generate options that expand their freedom of action and increase the chance for themselves to experience both strong motivation and meaningful learning. (2012, p. 162)

The functional theory mooted here holds that because engaged students possess a set of (relevant) complex cognitive skills—say, flexible learning strategies and higher-order critical thinking—they can engage in the "intentional, proactive, and constructive contribution into the flow of the instruction they receive." The functional theory, in other words, offer us the cognitive underpinnings of Reeve's conception of agentic engagement. In addition, the theory also possesses the explanatory power in accounting for the intuitions that laypersons have surrounding the term 'student engagement'. I submit, then, that this theory constitutes a plausible conception of student engagement. Next, I explore eight important practical upshots from the proposed theory.

## 5. PEDAGOGICAL IMPLICATIONS

### *The 'eliciting circumstance' (i)*

We now discuss the conditions that are wont to elicit a state of engagement. Recall that a key cognitive component of the theory states that an engaged student is one who "has formed, through a (dynamic) series of re-appraisals over time, the evaluative judgement…that the eliciting circumstance is meaningful, beneficial or valuable *given her existing beliefs, desires and goals*." This strongly suggests the adoption of what some educators call 'bridging'—making "links between the student's real-world experience outside the classroom and the experience inside the classroom" (Hitchcock, 2011). More specifically, there should be a bridge from the student's existing knowledge, desires and goals to what is being taught in a lesson. A second bridge can be built to connect what has been taught in a lesson to the activities or assessments that occur when a student leaves a class and perhaps even content of her other modules. Bridging encourages the continuous transference and reinforcement of knowledge or skills and as a result, promotes student engagement.

I share an example of how bridging can occur within the context of an Asian university or, more specially, a university with East Asian cultural influences. Traditional Western-centric courses on political theory tend to begin by emphasising how a state or ruling sovereign is legitimated—the governing entity is legitimate only insofar as citizens trade off certain individual rights with the governing entity (for security, say). The *priority* of individual rights over the collective or governing entity is, however, somewhat alien to societies steeped in East Asian socio-political thought. For, it has been argued fairly persuasively by celebrated sociologist Daniel Bell (2020) that the following marks an important difference between East and West (loosely understood):

> U.S. citizens may be more willing to sacrifice a social or economic right in cases of conflict with a civil or political right: if neither the constitution nor a majority of democratically elected representatives support universal access to health care, then the right to health care regardless of income can be curtailed. In contrast, the Chinese may be more willing to sacrifice a civil or political liberty in cases of conflict with a social or economic right: there may be wide support for restrictions on the right to form independent labour associations if they are necessary to provide the conditions for economic development. *Different priorities assigned to rights* can also matter when it must be decided how to spend scarce resources. For example, East Asian societies with a Confucian heritage will place great emphasis upon the value of education, and they may help to explain the large amount of spending on education compared to other societies with similar levels of economic development. (Bell, 2020, section 1, emphasis mine)

An instructor offering a module on Western political thought to a group of East Asian students (or students influenced by East Asian ideologies) can begin by having her students reflect on *their own* assumptions concerning the individual vis-à-vis the state or collective; and only after this is done, begin introducing and thereby setting up a contrast with certain canonical works of Western political thought. This is but one example where a tutor bridges from her students' existing beliefs and values to the material she intends to teach. And, according to this paper's proposed theory, doing so fosters student engagement.

### *The 'eliciting circumstance' (ii)*

Closely related to the strategy described above is one that enjoins tutors to use, where appropriate, topics or examples that are current, controversial and realistic (Hitchcock, 2011). Topics or examples related to so-called 'cancel culture', the removal of statues or monuments and of course, the effectiveness of online learning (necessitated by COVID-19) are some issues familiar to students (at this point of writing). Tutors can then bridge from these topics to intellectually 'older' issues such as free speech, colonisation and health crises (e.g. the Black Death). The appropriate use of current, controversial and realistic examples or topics in one's teaching material or assessments is helpful in promoting student engagement insofar as it stirs the students' existing store of knowledge and experiences.

### *Mastery of tasks (and performance!) matters*

There is some attraction amongst educational researchers to the view that students are motivated to learn if teachers place emphasis on "task goals' rather than 'performance goals" (Wigfield et al., 1998; Anderman & Anderman, 1999). Task goals refer to the level of a student's understanding and learning of skills or content, while performance goals refer to the test scores or grades thought to be indicative of a students' level of understanding and learning. Students motivated by the sense of fulfilment from mastering task goals are said to be 'intrinsically motivated', while those by performance goals 'extrinsically motivated'. It is claimed that emphasis on performance goals causes students to be distressed insofar as they attempt to outperform one another, and become worried about their performance, fearful of making mistakes and are therefore prone to anxiety and embarrassment in front of their peers (Roeser et al., 1996). Additionally, students struggling to meet their performance goals are quick to lose their intrinsic motivation or to take personal pleasure in learning for its own sake (Harter et al., 1992). The natural solution to these undesirable consequences, so the argument goes, is to shift the emphasis from performance to task goals, whereby students are encouraged to make and learn from their mistakes, increase their sense of confidence and self-efficacy, and in so doing cultivate a disposition to deepen their level of understanding and learning of skills or content.

However, we saw from our earlier discussion that findings from educational psychology show that high-achieving and engaged students are motivated *not simply* to achieve task goals, they are also disposed to achieving performance goals or to demonstrate their competence or ability in assessment schemes that are highly public (Pekrun et al., 2010; Mega et al., 2014). The implication appears to be this: educators wishing to motivate—and, only motivate—students should emphasise achievement of task goals over performance goals; but, educators aiming to encourage broader or more expansive category of student engagement can do so by emphasising *both* performance and task goals.[10]

### *Feedback matters*

According to Deci and Ryan (1980; 1985a), events such as receiving feedback, test scores, grades, scholarship outcomes, etc., have two aspects. First, a 'controlling' aspect that pressures students towards behaving in certain ways or to attempt to achieve certain outcomes; second, an 'informational' aspect that communicates, through feedback, students' competence.[11] The feedback tutors offer is essential to student engagement for the following reason. Recall that clause (d)(i) of the evaluative judgment part of the cognitive component holds that student engagement requires "an expectancy of credit, benefit or value from future interactions with the eliciting circumstance" (Figure 3). Tutor feedback (of success and failure) is therefore an important influence of a student's expectations of such future value, reward and credit—these in turn shapes her perceived value or meaningfulness of the course or lesson in question.

### *Tutor matters*

Since provision of quality feedback matters to student engagement, the competence of those tasked to provide such feedback is important. As one author notes, it is '[i]mportant for teachers to be engaged with learning; teachers cannot help students to overcome ignorance if they themselves are not engaged permanently in trying to overcome their own' (Freire, 1998, p. 89). It goes without saying, then, that the quality of tutor feedback and competence of a tutor are two oars propelling the same ship.

### *The notion of 'student engagement' in peer review or class observation reports*

The importance of student engagement is frequently mentioned in numerous evidence-based reflections on teaching and learning (Chickering & Gamson, 1987; Glassick et al., 1997; Felten, 2013). Accordingly, a common evaluative criterion emphasised in articles about the peer review process is student engagement (Gleason & Sanger, 2018). Indeed, in this author's own university, student engagement is a key criterion upon which prestigious teaching awards are handed out [NUS Outstanding Educator Award (OEA), 2022]. *However* if, as this paper tries to argue, student engagement is a *complex* functional notion, then there is ambiguity when important formative or summative assessment criteria of good teaching practices reference 'student engagement' as though it were a monolithically unambiguous idea. The result of this may very well be that important assessment criteria for what counts as effective teaching run the risk of passing off a highly complex concept for one that is unambiguously straightforward—this in turn may have the undesirable consequence that users of such assessment criteria may literally be missing the mark. It is recommended then that rather than speaking of 'student engagement' as though it were a monolithically simple notion, assessment criteria concerning effective teaching should elaborate on what exactly is being asked or tested for with the components and relations of the functional theory elucidated above.

### *Measuring student engagement*

There are several ways of measuring student engagement given its formulation in the section above. Recall that the theory's emotion component posits that interest, hope and confidence are some student engagement indicators; in addition, the theory's cognitive and motivation components hold that engaged students tend to be motivated to achieve and are autonomous learners. These indices or measuring scales are captured by the 'Learner Empowerment Scale' (or, 'LES') developed by Frymier et al. (1999). Insofar as LES has been shown

by Weber (1999) to be a reliable test of student interest, it may be used to offer empirical evidence of student engagement [Interested readers may also wish to see the 'Affective Learning Scale' by Anderson (1979)]. To be sure, the education field still needs a more robust technique for measuring student engagement. This is the subject of another paper; but it is hoped that the theory mooted above can offer researchers a rough gauge of the indices or scales integral in unpacking the notion of student engagement which, as I have tried showing in this paper, is more complex than commonly supposed.

## *Towards a socialising of student engagement: Final remarks on the classroom and beyond*

A common argument in educational research is that some form of social support is a necessary condition for student engagement (Guthrie & Davis, 2003); and relatedly, when social support is lacking, students may feel estranged from their learning environment or perceive that their teachers 'do not care' (Anderman, 1999). There is also research suggesting, though not conclusively, that teaching of *large* groups undermines student engagement and hence, student achievement (Glass & Smith, 1979; Sims, 2008, 2009; Hill et al., 2008; Jepsen & Rivkin, 2009). According to Chingos and Whitehurst (2011), '[i]t appears that very large class-size reductions, on the order of magnitude of 7-10 fewer students per class, can have meaningful long-term effects on student achievement and perhaps on non-cognitive outcomes'.[12] If however, not all educational institutions have the resources to offer their students reduced class sizes, what can such institutions do?

If the student engagement theory offered in this paper is plausible, then a different strategy is to *prioritise* the development in students of the cognitive capacities of, say, positive appraisals and effective learning strategies. In other words, even if it is true that teaching of large groups runs the risk of failing engagement, this undesirable consequence may be mitigated if teachers attempt to develop those cognitive skills associated with the student engagement theory being mooted here. For instance, a large cohort of first-year law students need to first grasp the basics of legal research and reasoning to cope with the challenges in their legal studies.[13] However, it may be pressed against me, if the teaching of such learning strategies occurs in a *large* class setting, wouldn't the lack of student engagement also pose a problem for this putative solution? This is indeed a worry and perhaps, one that hints at limitations of the engagement theory being mooted here. If the forwarded theory describes the components 'internal' to a student that affects her engagement levels, how then does what is 'external' to the student—namely, her surrounding social institutions—relate to those components internal to her? I end this paper with some speculative remarks on the social dimensions of student engagement.

It will be helpful first to define what we mean by a 'social institution'. The sociologist Jonathan Turner (1997) defines a social institution as,

> a complex of positions, roles, norms and values lodged in particular types of social structures and organising relatively stable patterns of human activity with respect to fundamental problems in producing life-sustaining resources, in reproducing individuals, and in sustaining viable societal structures within a given environment. (1997: 6)

Given Turner's definition, we can see that the university is a particular social institution insofar as it picks out "a complex of positions, roles, norms and values…" that defines an enduring feature of social life (see also Giddens, 1984). Now, recall that a summary statement of the proposed theory states that:

> I propose that a student's being engaged can be understood as a *set of causal relations* between (i) the sensory inputs of the eliciting conditions, (ii) the conditions described by cognitive and motivation theories of student engagement and (iii) those conditions described by emotion theories.

One way a social institution like the university relates to the engagement theory is that the norms, values and roles 'lodged' in a university can profoundly shape the theory's cognitive and motivational components. The following case study on the under-representation of women in certain humanities and social science disciplines vividly illustrates this point. In a study that surveyed over 2000 staff and graduate students of high-profile universities, Leslie et al. (2015) found that disciplines such as philosophy, economics and the classics that place a premium on the (mysterious) quality of 'raw brilliance' for academic success, face an under-representation of women; further, it was found that that it is usually men who are perceived to possess such a quality. In an interview, Sarah-Jane Leslie added that "[t]he study's findings suggest that academics who wish to address the gender gap in their fields should pay particular attention to the messages they send concerning what's required for success… For example, they can downplay talk of innate intellectual giftedness and instead highlight the importance of sustained effort for top-level success in their field" (Saxon, 2015).

Leslie et al.'s (2015) study revealed a norm or value system that is endemic to the socialising culture of certain humanities and social science disciplines. The connection to the student engagement theory is this: it is arguable that the particular norm or value system—that academic success requires 'raw brilliance' as opposed to hard work—has corrosive effects on the cognitive and motivational components of a female student's engagement levels. For instance, she will *not* be able to form the evaluative judgment that her studies are meaningful, beneficial or valuable since she *will not* believe herself able to cope with possible challenges the eliciting circumstance poses (since she lacks the quality of 'raw brilliance' which is the preserve of men). This socialising effect on the cognitive component may further undermine her motivation to learn and achieve academically, as it is arguable that she will *not* be granted autonomy with respect to the design of certain aspects of her learning process. In sum, the student engagement theory mooted here may be one factor that explains why an emphasis on 'raw brilliance' in certain disciplines correlates with an under-representation of women—where there is such an emphasis that women become *dis*engaged, alienated even.

More generally, Leslie et al.'s (2015) study is of a piece with other publications that show how prevailing stereotypes about women (Ceci & Williams 2007, 2011; Ceci et al., 2014) and African-Americans (Steele & Aronson, 1995) have profound socialising effects that explain why these historically subordinated groups are under-represented in the academic domain of the sciences or appear to under-perform in standardised tests. This paper simply attaches a new piece to the emerging picture: that such socialising effects undermine a student's engagement levels (which, in turn, is a factor that possibly explains measures of lower performance, under-representation, etc.).

Apart from continuing to encourage research that seeks to unearth those norms or value systems that contribute to systematic forms of socialisation, what other lessons can educators or policymakers draw from this discussion? I offer this proposal: if existing norms or value systems about historically subordinated groups continue to exert oppressive, if not powerful, socialising effects on a student's engagement levels, a remedy to this is to create, formalise, and reinforce new norms and value systems that constitute a bulwark against falling student engagement. Call such a countermanding movement a 'socialising of engagement'. This proposal has two parts. First, an understanding of the hidden set of norms and value systems that are endemic in a given social institution is needed [Leslie et al.'s (2015) study is an example]. The goal is for educators to reframe failing student engagement not in terms of a deficit model[14] but that of a need to address aspects of a social institution that propagate systematic forms of inequality. The second task, inspired by a branch of feminist ethics known as the ethics of 'care' (Gilligan, 1982),[15] is to construct or expand on roles that incentivise and reward the formation of reciprocal relationships between members of a social institution that emphasise values of care and responsibility, and is sensitive to the existence of vulnerabilities. Such roles (for instance, a 'mentoring' system between students) formalise and reward habits of reciprocity, attachment and fellow-feeling. Such habits of care, it is hoped, will serve as positive inputs to the cognitive and motivational components of a student's functional system of engagement. Where the student engagement theory offers educators a model of what is 'internal' to a student's engagement levels, the movement of socialising

engagement addresses what is 'external' to that student. However, how best to flesh out and offer empirical support for such a movement is surely a matter for a different paper.

## 6. CONCLUSION

Theories of student learning chart a messy terrain, resulting in education research authors sometimes talking at cross purposes. Indeed, authors regularly complain that too many things get swept under the umbrella concept of 'student engagement'. However, complaining that the notion of student engagement means different things to different people is no excuse for not trying to clear the dust off the table. Part of this paper's aim is to organise and offer a useful taxonomy of extant student engagement theories. Three main types of theories can be discerned from contemporary literature—emotion, cognitive, and motivation theories. This paper argues for a synthesis of these three theories in the form of a functionalist student engagement theory, and offers tutors a set of heuristics in promoting student engagement. This paper's main goal, in other words, is to show that we are able to refine, organise and formulate a plausible and coherent theory or framework of student engagement. When the various components, processes and relations between these components are conceptually separate, we encourage greater precision when discussing an otherwise monolithic sounding concept such as student engagement. One virtue of enhancing our understanding of student engagement is that it allows for greater interdisciplinary research into the concept; it is hoped that the systematicity and clarity of the components and relations posited by the theory will encourage further exchange of ideas and conversations concerning student engagement.

## ENDNOTES

1. We can argue that some cultures define engagement as an 'emphasis on competition, solitary learning, order and discipline', and that this paper's goal of formulating a student engagement theory runs roughshod over such cultures. In response, two points can be made. First, as a *descriptive* claim, it is questionable whether emphasis on competition, solitary learning, order and discipline is generalisable across all those (East Asian?) cultures. Second, even if that descriptive claim is true, it remains an open question what the *normative* claim should be. This paper attempts to offer an answer to this normative claim of what student engagement should to look like.

2. For a sampling, see Putnam (1960, 1967); Dennett (1991); Shoemaker (1975); Eliasmith (2002); Clark (2008); Chalmers (2011); de Hooge, Zeelenberg and Breugelmans (2011); Gray, et. al. (2002); Piccinini (2004); Shagrir (2005); Boden et al. (2016).

3. Refer to Endnote 2 for relevant citations on functionalism.

4. In this paper, I set aside this particular claim that student engagement is roused by a feeling of group membership or solidarity. This is not to deny that there are advantages to be had from the feeling of group solidarity or membership, especially as a response to the presence of alienation or disconnection that minority groups may experience from their schools or the 'standard' curriculum (Ogbu, 1991). For more discussion of student engagement as socio-political engagement, see Hooks (1994), Chavez and O'Donnell (1998), and Anderson et. al. (1998).

5. From my literature review, I have not encountered hybrid theories that require only the components of feeling and cognition or motivation.

6. This is basically the hybrid theory of student engagement that, as we saw from Section 3, is commonly asserted amongst researchers in teaching and learning. It is also a theory that bears structural similarity to work done in psychology and affective science: namely, that emotions are reducible to combinations of appraisals and motivations (Lazarus, 1991) or what is known as the 'Belief and Desire Theory of Emotions', which roughly

holds that emotions are the causal result of beliefs and desires or motivational states (Reisenzein, 2009ab; Miceli & Castelfranchi, 2015).

7. I wish to leave it open whether there exists a relation of positive feedback between the emotions and the cognitive and motivational components. In other words, what I have presented here *is consistent* with the possibility that the rousing of a student's emotions offers positive feedback that reinforces her assent to certain cognitive beliefs and strengthens her motivations. The latter would make for a set of *complex* causal relations.

8. Contrast this with scenarios where an agent has done something morally or legal impermissible: in such scenarios, the agent's self is implicated in a transgressive way, which further opens her to be the target of blame or repudiation

9. It is not implausible to assume that even if middle school students' learning needs differ from students in tertiary education, some needs—such as those of autonomy and decision-making—differ not so much in kind *as in degrees*. I make this assumption for two reasons. First, the fact that researchers and practitioners *across all levels* testify to the importance of student engagement suggests there is some transferability of date between what we know about engagement in tertiary and pre-tertiary settings. Second, student engagement indicators tend to apply to different ages and levels of education. For these reasons, I am inclined to think that the insight offered by Guthrie and Davis (2003) applies to students in tertiary education as much as it does to middle school students.

10. As a means of doing so, educators may wish to *reward* achievements in both task and performance goals.

11. The authors further claim that the relative salience of one aspect or the other determines whether a student is intrinsically motivated.

12. If a 'cognitive' outcome refers to an outcome precipitated by or dependent on an agent's evaluative or belief states, then perhaps a '*non*-cognitive' outcome refers to that which is precipitated by or dependent on an agent's emotional and motivational states. On this interpretation of the expression offered by Chingos and Whitehurst (2011), smaller class sizes may have impact on a student's engagement levels, since emotional and motivational states are crucial elements in the student engagement theory discussed here.

13. What skills or competencies to be developed to increase student engagement depend on the type of challenges associated with the course or discipline a student is enrolled in.

14. Indeed, this is consistent with Valencia's (1997) 'liberal' or 'student oriented' notion of engagement which 'focuses on the strengths of students, and hence does not overtly adopt a deficit model which maintains that "the student who fails in school does so because of internal deficits or deficiencies"' (p. 2).

15. In her highly influential study *In a Different Voice* (1982), psychologist Carol Gilligan argues that the moral experience of women is such that rights- or principle-based conceptions morality are not sensitive to the highly contextualised experience of girls and women. Such rights- or principle-based conceptions of morality crowd out aspects of our moral thinking such as the role of the emotions, personal relationships, the need for intimacy and reciprocity. Galligan's conception of morality or justice is termed an 'ethics of care'.

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