

Boredom in educational contexts: a critical review

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La noia nei contesti educativi: una revisione critica

While developing the ambiguity of the concept of boredom, we discuss a psychological, neuroscientific and an educational-phenomenological approach to boredom in educational settings. Analysing these various perspectives with the help of a recently developed taxonomy of four different boredom types, we argue that the classification conflates antecedent and resultant states with actual boredom. Although such classifications may still be helpful for practical purposes, we argue that approaches that are mostly driven by an aim to control and avoid boredom do not allow for a critical questioning of the potential role that boredom plays in education, and that it does not cater for a critical self-reflection on traditional aspects of the educational provision.

Mentre argomentiamo l'ambiguità del concetto di noia, discutiamo di un approccio psicologico, neuroscientifico e fenomenologico alla noia nei contesti educativi. Analizzando queste diverse prospettive con l'aiuto di una tassonomia recentemente sviluppata di quattro diversi tipi di noia, sosteniamo che la classificazione confonde stati antecedenti e conseguenti con la noia effettiva. Sebbene tali classificazioni possano ancora essere utili a scopi pratici, sosteniamo che gli approcci che sono principalmente guidati dallo scopo di controllare ed evitare la noia non consentono una messa in discussione del potenziale ruolo che la noia svolge nell'educazione e non soddisfano l'esigenza di una riflessione critica sugli aspetti tradizionali della relazione educativa.

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1. Introduction

This paper is about boredom in an educational context. This sounds rather straight forward as anyone will be able to remember one's own schooldays and the times spent there while being bored. From a teacher's perspective boredom often appears as an obstacle, preventing the student to learn and that despite the teacher's best efforts. However, away from the direct teacher-student dyad, there is also a social dimension to boredom. If, as Götz *et al.* (2007) claim, students are indeed experiencing boredom during about 50 percent of the lessons, and if boredom is conceptualised as an impediment to successful learning, then boredom constitutes a "dissipation of human resources that modern, achievement orientated societies cannot afford" (Daschmann, 2013, p. 1). While in the 1970s Robinson (1975) could still assert an almost total absence of an overarching psychological theory of boredom, we are now, probably owing to the demand for a comprehensive colonisation of a society's human resources (Habermas, 1973a), in a much better position. Due to an ever-increasing interest in researching boredom (Elpidorou, 2017), studies are now available, utilising psychological, neuroscientific and educational approaches. Of course, the overt effects of boredom remain visible to the observing teacher (Götz & Frenzel, 2006), a researching psychologist (Raffaelli *et al.*, 2018), as well as quantifiable by neuroscientific imaging procedures (Danckert & Merrifield, 2018). However, quite a good number of educationally related discourses appear to focus upon the *regulation* (Götz *et al.*, 2007) of boredom, arguably indicating a focus upon achievement in relation to *achievement emotions* (Pekrun, 2006) that are to be found in *achievement settings* (Pekrun *et al.*, 2010). With this background one cannot always avoid the impression that boredom — viewed from an education-psychological perspective — is solemnly captured by its detrimental effect and must thus be regulated, controlled and even avoided.

This is where this paper finds its traction. Although it might appear that boredom could be objectified, measured and even localised as a quantifiable detriment to successful learning, the essence of boredom nevertheless appears to be an inherently subjective experience. Hence, only the one being bored is experiencing this episode as it manifests itself exclusively via the individual perspective (Nagel, 1979). Boredom is thus, as Wittgenstein (1953) explains a private and privileged experience. With this brief excursus it is already evident that there are at least two ways of approaching boredom within an educational context. One would be the exact description of quantifiable aspects in relation to boredom from a detached, third-person perspective, as it is the standard scientific pursuit (Ruse, 2005, p. 857). However, there is an alternative approach, starting from the lived experience of the one actually experiencing boredom. The aim of such a phenomenological approach does not exhaust itself in meticulous descriptions of mere individual idiosyncrasies. It is rather, based upon the essential (*wesenhafte*) aspects of these descriptions, an attempt to recognise universal structures and processes that must be in place to lend the relevant experiential character to an episode of boredom (Husserl, 1950). There is thus a dichotomy between a natural-scientific and a phenomenological perspective upon the negative experience of boredom; an experience so negative indeed that Kierkegaard (Pattison, 2013) claimed it to be the root of all evil. With this paper we will — as an overall theme — explore whether Kierkegaard was right with his assertion. Quite in opposition to such a negative verdict we suggest that the prolonged prevalence of boredom in educational settings may equally serve as a promising basis to start asking critical questions about education.

For that reason we will bring a psychological approach to boredom in conversation with an educational-phenomenological approach. As phenomenological theories are many by now (Luft & Overgaard, 2014) we will mostly focus upon Edmund Husserl and the German educational phenomenologist Günther Buck. The former influenced the development of Buck's (2019) theory of *Lernen und Erfahrung* (Learning and Experience). Therefore both deserve specific attention. On the psychological side a similar focus is needed when approaching what in educational psychology is known as *academic boredom*, i.e. boredom that emerges in educational contexts (Götz & Hall, 2014). Therefore our discussion will — on the danger of neglecting both interesting psychological research and important phenomenological theories — hone in on a specific example study conducted by educational psychologists who proposed categories of academic boredom (Götz & Frenzel, 2006). This is by no means supposed to foster the assumption that this specific study is not a worthwhile contribution to our knowledge. Here it merely serves as a paradigm case to emphasise — by means of

putting it in discussion with (mostly) Husserl's phenomenological approach — a specific limitation of the psychological approach that may prevent us from asking challenging questions that could well extend our knowledge and current practice.

As a variety of perspectives upon the phenomenon of boredom might lead to confusion we will, in the first section, try to outline the ambiguous usage of the concept. In this context we will — albeit briefly — discuss the nature of boredom in relation to the question if this phenomenon constitutes a mood or rather an emotion. However, the main aim of this section is to highlight the currently ambiguous nature of the concept. In a second move we discuss boredom in relation to psychological and neuroscientific accounts. This section will conclude with a short introduction of Götz' and Frenzel's (2006) taxonomy of boredom. In the next section we will discuss Buck's theory of learning and experience to gain a focus, allowing us to discuss the experience of boredom in relation to Husserl's phenomenology. Again, this could be a discussion broadly relating to the overall philosophy of boredom. However, we decided, not at least due to the limited space here, to utilise Buck's notion of the experiences and Husserl's structural investigations to shed light on the «mechanics» of the experience of boredom in a concise fashion. A next section will run these phenomenologically established aspects alongside the psychological and neuroscientific explanations and against the classification of boredom types. Our discussion will connect these considerations with the wider field of education, starting with an initial question if boredom would not deserve a better reputation. This leads us to go beyond attempts to control boredom by pointing towards a potential educational gain in relation to the current state of education.

2. Defining and categorising boredom

In an attempt to curb the reader's hopes for a clear-cut definition it has to be said that despite a growing interest in boredom-related research, there is yet no commonly agreed definition of the concept. Often enough the current literature agrees with Fenichel's (1953, p. 292) psychoanalytically founded claim that boredom “covers very different states of mind and psychological attitudes”. This apparent agreement also entails Fenichel's use of Lipps' (1903) definition of boredom as an unpleasant feeling, emerging from a conflict between the need for intense mental activity and a lack of incitement to it, or an inability to be incited. This lack of incitement was already Nietzsche's concern. He, in his pessimistic attitude, claimed that the one saying *I am bored* does not report an inner state, but is rather making a statement about a task, a society or even the world as not being worth the attention or engagement of the claimant (Pattison, 2013).

Fenichel's (1953, p. 294) account of boredom distinguishes between a quiet form of boredom and one that is characterised by motor-restlessness leading to a state of “fidgetiness”. Hence, his attempt to define boredom captures a state of mind, experienced as unpleasant and — in accordance with Lipps — manifesting itself either with low or increased excitation potentials. His views are not completely shared by Pekrun *et al.* (2010, p. 532) who characterise boredom as an “affective state composed of unpleasant feelings, lack of stimulation and low physiological arousal”, whereas Götz and Frenzel (2006) maintain that the unpleasant experience of boredom can trigger a strong impulse to escape the situation. For Heidegger (2006) these unpleasant feelings constitute a way in which a self finds itself situated in its current surroundings, experienced as being attuned (*gestimmt*) via a mood. This is the background against which Heidegger (1993, p. 105) can claim that:

Profound boredom, drifting here and there in the abyss of our existence like a muffling fog, removes all things and men and oneself with it into a remarkable indifference. The boredom reveals being as a whole.

For Heidegger boredom is thus a way in which *being* experiences its own existence via a specific mood. Heidegger (2006, pp. 140-142) spelt that out very precisely in *Being and Time*. Here he described anxiety (*Angst* as opposed to *Furcht*) as a mode of being, whereby that which one is anxious about is not anything outside of *being* itself. It is rather an anxiety for the *Dasein* (being-there) of the anxious *being*. Hence, for Heidegger such an anxious *Stimmung* or mood is strictly *innerweltlich* (inner-worldly) and not intentionally directed towards a fear-causing external object. It is the *being* (*das*

Seiende) fearing for itself. Bollnow (1956, p. 64) shared these considerations, affirming that boredom lacks an object towards which it would be directed. Schopenhauer (1977, p. 390) captured boredom as the will (*Wille*) that lacks an object of willing and that shows a fearful emptiness turning one's existence into an intolerable burden. These phenomenological approaches to boredom thus reveal a clear distinction between mood and emotion. If one takes emotions to have some sort of object towards which they are intentionally directed then this directedness provides a good marker to distinguish emotions from the moods. It has to be noted here that within a philosophical context the term *intentional* does not refer to one's wishes or desires. It is a relation whereby an individual directs its attention towards the objects of the outside world. Heidegger specifically worked around the attuned-ness via the mood of being bored, while Schopenhauer points to the absence of an object towards which boredom could be directed. Hence, both work along this differentiation between moods and emotions and both seem to take boredom as a mood. This differentiation is affirmed by more recent research, especially by Prinz (2004) who takes emotions to have some sort of object towards which they are intentionally directed. This minimal intentionality is thus catering for distinguishing the emotions from the moods. Moods would be non-intentional, whereas emotions, even in their minimal form, would be intentionally directed in the form of — as Prinz captures them — feelings towards something. However, within the educational-psychological literature we find the notion of *academic boredom* (Götz & Hall, 2014), a construct that does not differentiate between the two affective states, addressing the moods merely as “low-intensity” emotions (Pekrun, 2015, p. 2). It thus appears as if the concept is contested, complex, multidimensional and constructed (Vodanovich, 2003; Elpidorou, 2017).

In relation to this multidimensionality, Pekrun (2006) lists components normally associated with boredom: affective (averse feelings), cognitive (perception of time passing slowly), motivational (urge to change the situation), physiological (low arousal) and expressive (postural or facial expressions). However, and probably due to the conceptual shortcut of mixing the categories of mood and emotion, it is not sufficiently clear as to whether these components are essential features of boredom or if some of these are rather resultant consequences of boredom. This becomes clearer when considering related concepts such as motivation and interest. Motivation is here taken as the energy necessary for the achievement of an individual goal, alongside with an autonomous decision for a goal-determined direction (Wigfield & Cambria, 2010). Motivation can thus be seen as the rationalisation of an individually chosen goal alongside with the build-up of a willingness to pursue it (Lloyd & Mayes, 1990). That would be, for example, attempts to avoid boring situations or — if experiencing one — to escape these. Motivation itself relates to interest as a priming, positive affect (Tomkins, 1962), as a feeling of wanting to devote one's attention towards the exploration of something or wanting to be involved with or be part of something in the search for a reward (Krebs *et al.*, 2009). Pekrun *et al.* (2010) rightfully claim that boredom does not stand in a binary opposition with interest, i.e. boredom is more than the mere lack of interest. While for Pekrun *et al.* the lack of interest remains ambiguous towards a suggested activity, neither wanting to engage nor making an effort to avoid it, boredom triggers the impulse to escape the boring situation. In terms of defining the concept of boredom we thus find an attempt to capture boredom with recourse to what it brings about. That is the emerging, but subsequent urge to escape boredom. Interesting enough such a move leaves us with the boredom-evoked desire to escape, i.e. an intentionally directed emotion, which — if boredom is captured as a mood — cannot be part of the concept's extension because it would belong to a different category.

Nevertheless, boredom-related, empirical research also differentiates between state-boredom and trait-boredom (Elpidorou, 2017). Here we will not focus upon the trait or personal pre-disposition to be bored but exclusively consider state-boredom as a token of experienced boredom. And with this last remark, we have reached the end of this section. We have discussed the state of being bored and, in relation to the literature, the ambiguous concept of boredom as the unpleasantness of experiencing a situation as being unsatisfying.

3. Psychological and neuroscientific accounts of boredom

Psychology finds itself in a difficult position. It aims to produce scientific evidence and to develop explanatory theories about mental states and structures. However, these states and structures remain, at

least partially, beyond its observational capabilities. Psychology thus faces an epistemological and an ontological dilemma (Feldges, 2013). That is a) the question concerning the requirements for sufficient scientific evidence warranting claims regarding an individual's mental states, and b) the question as to whether it is possible to reduce the experiences to the biological stratum. Cognitive psychological accounts work from the underlying assumption that boredom, like any other cognitive state has a functional purpose. Hence, boredom provides information about being bored and may thus motivate a search for a more interesting environment or the pursuit of a different goal (Bench & Lench, 2013). Here the question of how to define boredom re-emerges in practical terms: Is the assumed functional goal of boredom accomplished by merely informing an individual about being bored? Or, alternatively, would it also need to include the regulatory aspect of ensuing excitation-patterns (Lipps, 1903), or even the emergence of interest and motivation to escape the boring situation (Fenichel, 1953) alongside the negative feelings if escape is not possible? The possibility of asking these questions re-emphasises the importance of a clear definition. The absence of this leads to the difficulty of determining where — for empirical assessment purposes — the “inherently internal experience” of boredom actually begins and where exactly it would need to end (Raffaelli *et al.*, 2018, p. 2458). Hence, it may be possible to investigate boredom and its relevant antecedents via experimentally induced episodes of boredom (Danckert & Merrifield, 2018), but without a sharp definition it is not clear where to draw the border between boredom and its antecedents. Equally, it is possible to observe and categorise «typical» boredom-behaviours, probably alongside empirical measurements to establish the resulting arousal in the form of changes in skin-conductivity or heart frequency (London *et al.*, 1972). But again, it remains unclear where to draw the line between genuine states of «pure» boredom and resulting states.

The use of imaging technology aims to identify and localise relevant neuronal structures within the bored brain (Andrews-Hanna, 2012). However, when engaging with these imaging techniques it is important to bear in mind that the individual experience of boredom and the relevant neuronal activity constitute two different levels of description (Feldges *et al.*, 2017; Feldges, 2017). Hence, even a fine-grained description on a neuronal level does not equal the experiential dimension of actually being bored. It is, for example, possible to verify the effects of a meditation-evoked depersonalisation (Lutz, 2007) via imagining technologies. This depersonalisation is normally an unpleasant and stressful experience (Sierra, 2009). However, it can also be brought about wilfully via meditation. This is then characterised by a deactivation of the self-representing parts of the brain, as evidenced by neuroscientific imaging technologies and as individually described as deeply relaxing (Lutz, 2007). Hence, the neuronal patterns of such a depersonalisation may match certain aspects of boredom, but their felt character is not the same. Furthermore, neuroscientific investigations inform us that, while being bored, certain brain-regions become inactive, while others show increased activity. Decreasing activity occurs in structures that are associated with the Executive Control Network, a structure with an outward gaze, ready to act with the objects of one's environment (Danckert & Merrifield, 2018). The structures showing increased activity during boredom are associated with the Default Mode Network (DMN). That is a structure that, in the absence of sufficient external stimuli, turns towards internal mentation (Andrews-Hanna, 2012). Hence, task-unrelated or external stimulus-independent thought gives rise to the activation of the DMN. While being in this mode the individual engages with highly personal and goal-directed thoughts about past and future events (Klinger, 2009). That may appear as though the relevant, neuronal structures of boredom had been revealed. However, it is important to note that the activation of the DMN is not exclusively brought about by boredom: one can undergo a DMN episode without experiencing boredom (Andrews-Hanna, 2012), as for example in the above mentioned depersonalisation brought about by meditation. It thus turns out that the current ambiguity surrounding the concept of boredom yields negative implications upon empirical assessments of relevant states, because it is not always clear whether observed states and processes are actually an essential or a mere contingent feature of boredom.

Nevertheless, and despite all these difficulties, there is an undisputed need to recognise boredom in educational settings. This is where Götz' and Frenzel's (2006) taxonomy of boredom comes in. Without being ignorant of the conceptual problems both researchers nevertheless propose four educationally relevant types of boredom. Their classification utilises «phenomenological» student interviews. However, it is probably important to mention that the reason for calling their study «phenomenological»

exhaust itself in a qualitative elucidation of the respondents' experiences of being bored, and this without recourse to any philosophical-phenomenological method or theory. Götz and Frenzel distinguish four types of educationally relevant boredom:

- 1) indifferent boredom (experience of emptiness),
- 2) calibrating boredom (inactive but open for alternative engagements),
- 3) goal-seeking boredom (restlessness) and
- 4) reactant boredom (high arousal and aggression).

These four types form a continuum within a two-dimensional plane along a y-axis (increasing excitation) and an x-axis (increasing negative valence). Hence, type 1 would show the lowest value in excitation and negative valence, whereas type 4 would display the highest of these values. It is possible to criticise this typology for a number of conceptual reasons, but — to be fair — Götz and Frenzel did not aim for a conceptual clarification of boredom. Acknowledging this, we want to employ their framework because it allows us to problematise some specific aspects of educational boredom. But before we can do this, we must first turn our attention to an educational-phenomenological framework to enable us to formulate specific questions regarding boredom in an educational context.

4. Phenomenology and the bored Self

As mentioned earlier, there are many phenomenological theories. It is certainly not possible to even scratch the surface of these within the limitations of our discussion here. As this paper focuses upon boredom in educational context we will utilise the theory of the German educational phenomenologist Günther Buck (2019) who conceived learning as a process of experiencing. This move will allow us to keep a firm focus upon education. And Buck's emphasis upon the experiences enables us, when it comes to boredom, to get a clearer understanding of what the essential features of the experience of academic boredom could be. This latter discussion will be brought forward with recourse to Husserl's phenomenology because a) Buck himself is strongly influenced by Husserl and b) to keep our discussion focused.

Buck (2019, p. 6) focused upon learning and experience. But this connection means that learning has to be understood as a process of experiencing, whereby the experiences provide initial access to the world. Hence, via the experiences it becomes possible to learn about the world and getting acquainted with it (*kennenlernen*) in a primarily receptive (*hinnehmender*) fashion. Hence, *something* is offered or offers itself to experience and is thus elevated above the chaos of pure sensations (*Empfindungen*) and

[b]ecause we understand [*verstehen*, T.F.] something via experience, it becomes possible to *learn* and to gain a greater understanding (*ibid.*).

Buck (*ibid.*, p. 10) is very clear about the individualised character of these experiences and explains:

Experience is the initial [...] first and fundamental mediation of the things and of myself, in so far as I am concerned at all. Experience means: initial and fundamental understanding [*Verständnis*, T.F.] of the things and, at the same time, a first and fundamental inner relatedness of the one having the experience, not in the form of a reflection upon the subject [...] but as a kind of sensibility [*Verständigkeit*, T.F.] via which I am with the things.

Hence, Buck emphasises the importance of experience as the dominant way in which a self is able to relate to its surroundings. We will pick this aspect up again a bit later. Buck also maintains that, while learning and experience are connected, it is equally possible to experience this connection itself in the form of an experience that something is, or has been learned. Indeed, Buck (*ibid.*, p. 8) holds that “the experience of having acquired something new” alongside with the initial experience are necessary preconditions whereby something becomes learn-able (*lernbar*) at all. Although Buck does not work

explicitly on the negative case, it is conceivable that the experience of *not having learned something* is equally possible within his theoretical framework. Hence, that although one may be situated in an educational context, the experience of acquiring something new does not emerge. Learning will thus not take place and frustration (anger) and/or fatalism (boredom) may emerge.

However, Buck is also trying to break away from attempts that start to think about learning from its endpoint. Buck (*ibid.*, p. 6) critically questions such teleological or functional views of learning. He suggests to approach learning with a focus upon the experiential process rather than one on accomplished achievements. This turns the functional view of learning around by focusing upon the relationship between learning and experience instead. He explains “the process of learning is to be understood as the process of experiencing” (*ibid.*). Closer to our current concerns, Buck’s emphasis on the experiences as a pre-condition to think differently about learning, enables us to get away from a teleological, goal-orientated, functional view upon education as it is a standard presumption in cognitive psychology (Feldges, 2017). A view that perceives emergent boredom as an obstacle to accomplishment and achievement, a hindrance that has to be controlled and banned, rather than being part of an experiential process.

Having thus the tools at hand to conceive boredom as an experiential aspect of learning we can start to ask the question about the quality of this experience. The French phenomenologist Jean-Luc Marion (1998, p. 191) explains in a rather bleak passage what the one being bored experiences:

The I that is bored abandons itself to boredom, but above all it quite simply abandons itself. For in not letting itself ever be called, or rather in never letting itself respond, not even to a call that comes from itself with a view to itself alone, it abandons that through which it could still say ‘I’; it becomes impersonal: I no longer am ...

Marion thus echoes, in a more pointed form, what Schopenhauer (1977, p. 390) described as a boredom-induced fearful emptiness that turns one’s existence into an intolerable burden. But we will stick with Marion’s picture. His exaggerated view of the self-loosing self provides a stronger contrast foil to investigate the educationally relevant experience of a potential existential loss. This existential experience of boredom is what needs to be discussed next. Nevertheless, because we are trying to avoid getting lost in individual idiosyncrasies of mere descriptive accounts, we will utilise Husserl’s phenomenology to approach the experience of boredom in a structural manner, focusing upon essential features. For that reason we introduce a) Husserl’s differentiation between the empirical and the phenomenal ego in relation to the stream of consciousness, b) his notion of the pure ego, and finally c) we briefly consider some aspects of Husserl’s phenomenology of temporal experience.

4.1. The stream of consciousness

In the fifth of his Logical Investigations Husserl (1984, p. 356) differentiates three types of consciousness. The first captures the difference between the empirical ego and the phenomenological relevant stock of mental occurrences. While the empirical ego remains the subject for scientific-psychological investigations as we outlined them earlier, Husserl focuses upon the stream of consciousness. This is the bundle of individual experiences that constitute the consciousness of a real existing person. Husserl’s own example might help to understand better. On one side there is the real event of sound waves hitting the eardrum, causing bone-movement in the tympanic cavity and thus stimulating neuronal structures (*ibid.*, p. 357) as something happening within the empirical ego. However, Husserl is interested in the individual experience — or the hearing — of the sound. Hence, the act of hearing can be divided into a) the bodily, physical mechanics that are available to objective descriptions, and b) after a phenomenological purification, the experience of this sound by a consciousness, i.e. by one who hears and enjoys, or despises, that sound. Husserl’s (*ibid.*, p. 356) second concept of consciousness is one that is concerned with the “inner awareness of one’s own mental experiences”. Becoming aware of one’s own experiences, to experience their *mine-ness* or *self-given-ness*, can happen in a pre-reflective as well as in a reflective manner (Zahavi, 2008, p. 41). Hence, while it is possible that the immediate awareness of the pre-reflective self-given-ness provides a non-intentional, non-explicit link to one’s experiences (e.g.: lingering in indifferent boredom), the reflective self-given-ness allows an intentional self-awareness (e.g.: I am bored).

However, such a reflective self-awareness of one's boredom would not transform boredom itself into an intentional state but only the reflective engagement with that otherwise non-intentional state. For our current purposes we do not need to follow this up in any greater detail. For us it is this second concept that provides a basis to conceptualise an affected (bored) individuality without the need of a reflecting ego that knows explicitly that it is bored.

4.2. The pure Ego

Based upon the concept of the phenomenological stock of conscious experiences Husserl's (*ibid.*, p. 368) develops the notion of the "pure ego" as an ego that could claim about itself: *I am!* Husserl's (*ibid.*, p. 374) pure ego is thus the living and enduring centre point. It is the pre-condition for an affected individuality as we discussed it above. So we have Husserl's empirical ego — which is not the concern of phenomenology — and the pure ego that is self-aware and conscious. Bound up with the empirical ego (the body) this pure ego provides the point at which experiences manifest themselves.

4.3. Time

Experiences have their duration, and, lined up one after the other, they form the stream of consciousness which — metaphorically speaking — runs through the pure ego, making the experiences available in their *mine-ness* by affecting the pure ego pre-reflectively or in a reflective manner. This is a rather complex issue and warrants a more detailed account. According to Husserl (1966, p. 165; 1968, p. 202) every conscious moment of experience is always shrouded in an after-echo of what went before (retention), the *just-having-been* past, alongside a tacit expectation of what is to happen next (protention). Hence, every *now-moment* remains connected to one's *just-have-been* past and one's anticipated, immediate future. Husserl (1950, p. 182) explains that each and every of these individual experience has their own and necessary duration which, together with other durations (*Dauern*), form an endless continuum, leaving the individual with an infinite temporal horizon. Infinite because every moment has a potential future (protention), i.e. the pure ego's now is always located in a subjective, temporal horizon with a potentially endless succession into the future. Hence, consciousness, as Husserl (1966, p. 112) explains is an absolute, timeless consciousness that becomes temporal whilst establishing intentional relations towards external or internal aspects. Husserl (*ibid.*) maintains that subjective time constitutes itself within that absolute, timeless consciousness. Metaphorically speaking, we have thus an absolute and timeless consciousness, floating in an infinite sea of time. In order to appropriate time, and to make it subjective, the pure ego has to engage in the constitution of sense or meaning in relation to its own experiences, thereby «creating» a *now* around which the retention and protention can be sorted as the temporal horizon. To make matters a little bit more complex there is also Husserl's (1950, p. 181) concept of objective or "cosmic time". We need not develop this in any detail here, it must suffice to say that the experience of subjective time and this objective time can, during a bored episode, come apart; hence time may be perceived as moving slower than it objectively does. Indeed, experienced boredom — let's say for an hour — seems to make time almost sluggish, while any excitement lasting for the same objective duration makes time subjectively feel as if it flies by.

By now we have a general framework, as provided by Husserl's phenomenological investigations. We can now try to make sense of boredom by linking these theoretical considerations closer to the educational reality.

5. What is it like to be bored?

The title of this section recalls Nagel's (1979) famous question of *what it is like to be a bat?* Although this might indicate an exclusively individual focus, this is not what we intend to develop here. Husserl did not strive towards an explanation of the individual genesis of the feeling of *what it is like*. His concern was how consciousness had to be structured to allow for such feelings to occur. In that respect Husserl's phenomenology offers a framework according to which certain aspects of boredom can be contextualised. Hence, we intend to utilise Husserl's transcendental investigations in order to reveal the

necessary pre-conditions for the possibility of conscious experiences (Kant, 1790/2009: A111-A12) to apply these to boredom.

When putting the first type of *indifferent boredom* in relation with what we discussed earlier, it might appear that its feature of *low activation* provides a fit with Fenichel's type of quiet boredom. Nevertheless, it has to be remembered that the literature mostly agreed that boredom is experienced as unpleasant. When it thus comes to physiological attempts to capture boredom it looks as if this *indifferent boredom* equals a decrease of executive control (Danckert & Merifield, 2018) and/or a decreasing role of self-representing parts of the brain (Lutz, 2007). Hence, this *indifferent boredom* displays something similar to Sierra's (2009) concept of depersonalisation, and indeed, Götz and Frenzel (2006) mention that this state is rather similar to states of increased relaxation.

In relation to Marion's (1998) assertion we face the question of how it could be possible for a self to abandon itself, how it could ever lose itself or even cease to exist? When relating Husserl's notion of the stream of consciousness with his analyses of time we gain the ability to use Husserl's second concept of consciousness (inner awareness of one's experiences) and his account of the intentional constitution of sense or meaning: The pure ego is *called* — as Marion puts it — by aspects of the stream of consciousness and takes this pre-reflectively available *self-given-ness* of its experiences as a starting point for the intentional constitution of intentional objects. This happens in time whereby the retentive *just-have-been* moments provide a link to the immediate past and guide the further constitution of the intentional object in the *now*. According to Marion it is this constant call that reaches the pure ego in these *now-moments* against an inherently infinite temporal horizon for such an ego. On accepting such a phenomenological framework, it is possible to conceive the pure ego as being in danger of losing itself in a boring situation, as it no longer truly exists when lacking those affected moments of intentional constitution. Although the first type of indifferent boredom contains some moments of becoming impersonal, of no longer letting the self be called, this first type of indifferent boredom does not yet possess the existential danger of the self abandoning itself. The feature of a disinterested emptiness of thoughts and the closeness to states of relaxation rather seem to indicate that this first type of indifferent boredom is more of an in-between stage. Hence, although this type may develop into a full-blown episode of boredom, is not «there» yet. This phenomenological assessment fits well with physiological evidence and is further substantiated with the fact that this type of boredom hardly fits into the currently discussed definitions of the phenomenon. In that respect, Götz' and Frenzel's first type of indifferent boredom seems to be more of a heuristic device, serving the purpose of capturing the possibility of an emergent episode of boredom. Hence, an antecedent state, that presents a chance for early recognition and managing interventions.

The second type of *calibrating boredom* is characterised by inactivity, increasing excitation levels and negative valence. Hence, the feeling of unpleasantness — essential for most of the definitions of boredom — starts to manifest itself. The free roaming of thoughts, the thinking about hobbies, spare time and one's interests display a change from external towards internal aspects which can be explained by the now accomplished switch from the Executive Control Network to the Default Mode Network. Applying the phenomenological framework, the ego now experiences an apparent burden (Schopenhauer), even an existential threat of losing itself (Marion). But instead of sinking into an abyss of no longer being responsive within an endless sea of experiences that do not suffice to «call» the ego, or to raise its interest, the ego switches its gaze from an outward to an inward focus. Hence, Marion's danger of the self not letting itself respond, not even to a call that comes from itself, is one that is taken care of by the neurological layout of the human brain. Of course, it is possible to describe this switch from one neuronal network to the other in a phenomenological manner, but the explanation of why such a switch happens remains beyond the phenomenological reach. This is where anthropological, evolutionary explanations can explain that it does not appear beneficial to humankind to remain in a stimulus-poor environment, but rather to engage in thoughts about potential alternatives. However, and despite this anthropological detour, it appears that this second type of *calibrating boredom* captures a situation where the ego experiences the unpleasantness of a looming danger of losing itself. And to prevent this the ego engages in countermeasures by finding itself alternatives for its continued constituting activity in the form of *mind wandering*. When following the definitions of boredom along with the physiological explanations and our phenomenological framework, it appears that this second type

of boredom constitutes a genuine form of boredom, one to which the first type, discussed above, could be a mere precursor.

The third concept of *goal-seeking boredom* shows increased excitation and negative valence, manifesting itself in a restless search for action-alternatives. Hence, we have a bored individual, showing signs of Fenichel's fidgetiness, whose pure ego is struggling not to, as Marion put it, lose itself. A pure ego that, due to a lack of «calling» objects in its environment, engages in a concrete search for alternatives, developing plans around remembered aspects of its own past to anticipate potential alternatives. This third type, marked by a now fully-accomplished switch to the Default Mode Network, goes further than the previous second type of boredom. Not only does the urge to be active and the associated negative valence increase, there is also a further issue. It is, of course, possible to rate the growing tension of a suppressed urge to be active and the build-up of a negative valence as something that indicates a more serious — hence, a type III — kind of boredom. However, it remains equally possible to perceive the increase in negative valence as resulting from a situation in which the individual engages in providing internal stimuli to develop action alternatives, while not being able or allowed to pursue them. Hence, we could conceive this increasing urge to be autonomously active and self-determined as an indication of an *intense mental activity* (Lipps, 1903) alongside with an abundance of self-generated, internal “stimulation” and a high “psychological arousal” (Pekrun *et al.*, 2010, p. 532). However, when looking at what is going on in Götz' and Frenzel's (2006) third category in that way, we are on the verge of mixing the mood of boredom with resultant and directed emotions desiring to leave the situation. Before we can assess the implications of such a construal, we must assess the fourth type of boredom.

In this fourth category the urge to be active and the experienced negativity increase even more. High levels of arousal, and potentially aggression, run alongside thoughts about the opportunity costs. These opportunity costs consider the price one has to pay (being bored) for making a particular choice (staying in the boring situation) in relation to the benefits of the most valuable choice (leaving a boring situation) out of all the options that were not taken (Grant, 2000). With other words, this fourth state, quite close to anger, aggression and helplessness, is not at all a passive but a highly engaged state. It is a state in which — metaphorically speaking — the ego rebels against the danger of losing itself in a situation imposed upon it, a situation that does not cater for the ego to be called and in which the ego thus engages in the calculative assessments of alternatives. In that respect it appears as if this fourth type of boredom, but potentially even parts of the third type of boredom, are not solemnly focusing upon boredom *per se*, but rather describe, based upon an antecedent bored episode, the effects that occur when a bored individual cannot leave the boring situation to regain autonomy and self-determination. Götz' and Frenzel's overall classification of educationally relevant boredom thus capture — but only implicitly — a specific situation, namely that of an educational setting which, due to its institutionalised surroundings, does not provide the option of leaving the boring situation just so. Hence, there is a strong situated-ness in Götz' and Frenzel's classification. A classification that does not critically reflect upon the educational situation which is — at least partially — responsible for the emergence of these specific types of boredom. Of course, Götz and Frenzel could counter here that they were explicitly interested in *academic boredom* and that via the attributive qualifier of boredom being exclusively «academic» any further reflection upon the situated-ness of their approach was redundant. However, as we will discuss in the following section, such a stance comes at a cost.

6. Discussion

We started with an attempt to provide an overview regarding the many attempts to capture — or even define — the concept of boredom. A wide field of approaches aims to reveal aspects of the concept's intension or to get hold of the essence of boredom with recourse to its extension. However, what remained was a) a discussion focusing upon the nature of boredom, i.e. is it a mood or an emotion — or even both? and b) a kind of fatalistic acknowledgement that the concept has a complex, multidimensional and constructed character (Vodanovich, 2003; Elpidorou, 2017). Especially this latter acknowledgement calls for the development of a clearly defined concept of boredom. A first step in that direction would need to clarify the essence of boredom as either a mood or an emotion. There is a considerable body of literature from a philosophical (e.g.: Prinz, 2004), a phenomenological (e.g.: Husserl,

1968; Husserl, 1984; Heidegger, 2004; Bollnow, 1965), an anthropological (Evans & Cruse, 2004) and even from a psychological (e.g.: LeDoux, 1993) background proposing to differentiate the moods as a non-intentional attuned-ness to a situation from the emotions as intentionally directed towards objects that *move* us (i.e. e-motion!). But while this differentiation is widely acknowledged in the literature, the influential *International Handbook of Emotions in Education* neglects this important marker (Pekrun, 2015, p. 2). And so does the here discussed example case of trying to categorise boredom without incorporating this fundamental difference. Instead the researchers try to capture educationally relevant boredom from its early onset up until its most intense form. However, the question if both ends of that spectrum still deserve to rightfully be called boredom remains unanswered. Boredom thus, as it is often the case within the current educational-psychological literature, looks like something that runs counter to the educationalists' efforts to teach their students. Hence, an obstacle that hinders the successful functioning of «learning» that could otherwise be accomplished by the students. This was exactly a perspective upon learning from a teleological endpoint that Buck suggested to overcome by focusing upon the experiential process. However, the functional undercurrent of current psychology (Feldges, 2017) with its emphasis upon accomplished learning almost fixes the teacher's attention onto the recognition of individually emerging signs of boredom. These signs are thus available to justify individually directed attempts to control boredom in the ones who shows signs of boredom as outlined by a categorisation matrix. A matrix that covers more than it should (antecedent behaviour *plus* pure boredom *plus* resultant states) and that could easily be misappropriated by using it predominantly as a means to try to manage student behaviour and attention.

Opposed to this educational-psychological approach we discussed a phenomenological framework. This appears to provide a much clearer view upon what boredom actually is and how to differentiate boredom from its antecedents and resulting states. The fact that neuroscientific research seems to provide a good fit to our phenomenological discussion is in itself remarkable as neuroscience is usually seen to lend support to cognitive psychology rather than to phenomenological approaches. However, here we do not wish to discuss which of these two views should be favoured, nor can we attempt to offer a definition of the concept of boredom. Instead of this we are interested in the normative character of the social transformative accomplishment that institutionalised education in schools provides in order to turn children into socially adapted, functioning adults (Habermas, 1973b). Hence, ours is the more general question as to whether there is actually a positive role for boredom in school. That is the question as to whether boredom may have too bad a reputation. If learning to wait and to defer the gratification of desires is taken to be an integral part of the social initiation processes provided by schools, then boredom in schools most certainly has a role to play. However, if — for example by means of a recognition-matrix — boredom is framed as totally negative, to be controlled and avoided within a society that cannot and will not afford it, then the question regarding a potentially positive role of boredom cannot arise. Hence, whatever the advantages of a phenomenological account may be, it at least allows us to see beyond the need to control boredom as something *bad* and something to be avoided. This wider focus allows us to discuss as to whether boredom should be understood as an intrinsic feature of institutionalised education and thus something that cannot and should not be avoided in total.

Nevertheless, there is a second side to our attempts to question the usual understanding of boredom in this rather unusual manner. If boredom would indeed turn out to be a system-immanent feature of the current schooling practices, there would nevertheless be no reason for the educationalists to just give up and let it happen. We will only briefly outline the reason for this. Too much enjoyable, educational stimulation and fun by “edutainers” (Johnson & McElroy, 2010, p. 4) provide, *qua* Kuh *et al.* (2008) only educational progress of questionable value. Surely the same must hold on the opposite end of the spectrum, i.e. that too much boredom will not do any good either. Our phenomenological account gave access to understand of what goes on within a bored individual. Severe boredom is a serious and possibly disturbing experience for the one experiencing it. And this reveals another aspect apparently missing from the psychological account. Trying to avoid boredom should — at least partially — focus upon the individuals who have to endure it and not — more or less exclusively — upon a teacher's aim to bring about student learning. Hence, as much as there may be a case to accept boredom to have its place in education — and we only raised the question without making an assertion to this effect — «real» (i.e. existentially severe) boredom should not be the resultant effect of an un-imaginative pro-

vision within institutionalised education that often enough follows the format of frontal instruction. This format requires a mostly compliant student, who only «springs to action» when the teacher indicates the need to do so and one who utilises the lessons in a (supposedly) mentally active, but receptive mode while remaining physically passive. We do not have the space to follow these questions up in any more detail here, but at the end of this discussion ours is actually a two-fold question. The first one addresses the need for a recognised place for boredom within education, one that goes beyond control. While our second question — in an attempt to curb boredom even if it would turn out to be an intrinsic feature of education — focuses upon the educational practice. Or, to ask the second question the other way round: could at least a good part of educationally evoked boredom be an actual result of the pedagogical practice in use? As we hope to have showed, both of these fundamental questions would not arise within a functional-psychological account that focuses upon recognition and control, assessed from — as Buck explained — the endpoint of the functional process of learning. It is here that our thoughts about boredom from a phenomenological perspective enable us to reach further and to critically engage with education in a more fundamental manner.

7. Conclusion

By assessing the literature regarding boredom and educationally relevant boredom we identified the current lack of a clear definition of the concept. In relation to psychological, neuroscientific and a specific phenomenological framework we utilised one particular example of an attempt to classify boredom. However, when discussing the identified types of boredom in relation to the frameworks, it turned out that some of the types appeared to conflate potential antecedents or emergent results of bored episodes with boredom *per se*. While not challenging the practical use-value of the taxonomy, we focused upon the general question regarding the role of boredom within educational settings. We asked the question if boredom would not deserve a better reputation than it currently enjoys, i.e. whether boredom is indeed an intrinsic part of education. Secondly, without being able to discuss this in an ultimate manner, we — again with recourse to our phenomenological deliberations — used boredom in its experiential quality to critically engage with pedagogical practice.

Finally we pointed out that our two questions could hardly have emerged within a functional-psychological framework. We did, however, not develop an explicit argument for the superiority of phenomenological approaches to boredom in education. Nevertheless, if an analogy is permitted here, when finding rain dripping into one's living room, one could recognise and control it with a plan of where to put the buckets. Alternatively, it would be possible to start thinking about eventually having to fix the roof. If a phenomenological approach as ours permits us to see the bigger picture, to ask more general questions about education, then — at least in that respect — such an approach has a clear advantage over alternative ones.

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