

# The stifling silence around scholarly creativity in doctoral education: experiences of students and supervisors in four disciplines

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**Abstract** The demand for developing creativity among doctoral students is found in a number of educational policies all over the world. Yet, earlier studies on Swedish doctoral education suggest that doctoral students' creativity is not always encouraged. Based on a critical hermeneutic approach and cases in four different disciplines, the aim of this study was therefore (1) to explore different shapes of doctoral students' creativity in Swedish doctoral education and (2) to reveal and find possible explanations to some of the conditions stifling doctoral students' scholarly creativity. Interview data was collected from 28 participants, constituting 14 dyads of students and supervisors in four disciplines. Through hermeneutic interpretative analysis of the disciplinary cases, the results show that creativity *kept on playing* in musical performance, was *an unexpected guest* in pedagogical work, was *captured in frames* in philosophy and *put on hold* in psychiatry. Across the cases, students' scholarly creativity was essentially *encapsulated in silence*. This silence seemed to emanate from controlling intellectual, political and economic agendas that enabled stifling conditions of the students' scholarly creativity, where it was as follows: *restricted by scholarly traditions, embodying supervisors' power* and *unrequested in practice*. Based on these findings, the article ends in suggestions for preventing such conditions, holding that it is important to establish a discourse on scholarly creativity in doctoral education, to view doctoral students as capable creative agents and to actually ask for their scholarly creativity.

**Keywords** Doctoral education · Creativity · Scholarship · Student capability · Critical hermeneutics

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## Introduction

Creativity is fundamental to scholarly and societal development through its potential of moving existing knowledge to new dimensions. It is also a central learning outcome at a doctoral level in many countries across the continents (e.g. Association of American Universities 1998; Australasian Qualifications Framework Council 2013; Cloete et al. 2015; League of European Research Universities 2014; Swedish Higher Education Ordinance 1993:100).

While doctoral students' creativity is stressed in many contexts, the practice of doctoral education differs substantially across nations (Andres et al. 2015; Kehm 2009; Tonbul 2014) and disciplines (Golde 2006; Hakkarainen et al. 2016) as regards the organisation, curriculum, supervision, funding system and preferred thesis format. Moreover, academia embodies certain tensions between intellectual, political and economic agendas (Enders and de Weert 2009), influencing doctoral students' development in diverse directions (Elmgren et al. 2016; Lee and Boud 2009). Such variation obviously also affects the conditions for doctoral creativity.

A number of studies exist on doctoral students' learning conditions in general, and some of these deal with aspects of certain relevance for creativity such as the students' identity development and sense of agency (McAlpine 2012), the supervisor's ability to meet the students' dynamic needs for being explorative (Frick et al. 2014) or the benefit of integrating diverse forms of cultural knowledge in intercultural supervision (Manathunga 2017). However, while allusions to creativity can be found in the literature on learning and pedagogy in doctoral education, only a few empirical studies have focused on creativity *itself* in this educational context. Among these, some studies suggest that doctoral students' creativity is not always encouraged (Brodin 2015, 2016). Based on the data from these studies, the present analysis attempts to probe into causes that might impede the development of creativity in Swedish doctoral education.

### The scope and originality of this study

Although creativity can be defined in many ways, Baptista et al. (2015, p. 61) hold that doctoral creativity implies *seeking for novelty of disciplinary relevance or value*. This notion is also underpinned by the fact that faculties often agree about the overall character of scholarly quality, while the understanding of what characterises original and significant dissertations differs between disciplines (Clarke and Lunt 2014; Lovitts 2007).

Without contesting these preconditions, the scope of this study extends beyond predefined understandings of creativity. From the experiences of doctoral students and their supervisors, attention is instead given to the embodied and embedded shapes of creativity as these appear in the tensions between different power relationships affecting doctoral educational practice. While this particular focus has not been explored to date, some work on creativity nevertheless has relevance to these concerns through its developmental perspective.

### Doctoral students' creativity as process and product

In relation to the *four-C model of creativity* by Kaufman and Beghetto (2009), all thesis work seems to involve mini-c and little-c levels of creativity. According to their model, mini-c creativity corresponds to the individual's own learning process of attaining new and meaningful insights, while little-c creativity is found in individuals who create something new but not very original. Within the context of doctoral education, it can

also be added that the concept of *independence* is frequently associated with doctoral students' creative process (Brodin 2016; Frick 2011; Gardner 2008; Lovitts 2008), and that they need to learn how to engage with the literature to develop their own creative voice (Wisker 2015; Wisker and Robinson 2014). In sum, the creative process of doctoral students' implies a journey in which they learn 'to critically think, act and speak, in individually novel, valuable, feasible and ethically defensible ways that *may* lead to a dissertation which is assessed to be outstanding by the community of peers' (Brodin and Avery 2014, p. 277).

If a product shall be labelled as creative by experts, Kaufman and Beghetto (2009) suggest that it needs to reach the higher level of professional creativity (Pro-c). Then the creator has developed enough expertise to be both professional and innovative, although without being a legend as Big-c creators are. In doctoral education, such professional creativity seems to be reflected in *outstanding dissertations*, since senior scholars describe them as particularly 'creative' (Mullins and Kiley 2002) as well as 'significant and original' (Lovitts 2007). Nevertheless, according to Lovitts' (2007) focus group study with 276 faculty members from ten disciplines, outstanding dissertations are extremely rare. Instead, the faculty members thought that most doctoral students produced *very good* dissertations which made 'a modest contribution to the field' (p. 37) and were 'less original, less significant, less ambitious, less exciting, and/or less interesting than outstanding dissertations' (p. 39). In contrast, the *acceptable* dissertations were 'not very original, significant, exciting, or interesting' at all (p. 40).

### Conditions for doctoral students' creativity

Students' creativity can develop with educational support (Beghetto 2010; McWilliam and Dawson 2008). Whitelock et al. (2008) have identified that doctoral students' creativity is encouraged by a 'collaborative' supervision relationship, based on trust, mutual understanding and shared goals rather than on didactic directions. Similarly, Zacher and Johnson (2015) have discovered a positive correlation between supervisors' transformational leadership and their doctoral students' work creativity, while Fenge (2012) found that students' creativity was facilitated by peer learning in group supervision. But although formal supervision often has a pivotal role in doctoral students' development, Bengtson (2017) argues that their creativity may be better nurtured in informal settings such as spontaneous and unplanned 'ad hoc' supervision or other extra-curricular activities outside the doctoral programme. This conclusion is also supported by Hakala (2009) who found that doctoral students' creativity was encouraged when they had the opportunity to share their experiences of attaining new insights with colleagues.

Nevertheless, supportive supervisors, peers and informal settings do not always suffice to cultivate students' creativity, since contemporary doctoral educational practice is framed by economic, political and intellectual agendas (Lee and Boud 2009; Elmgren et al. 2016). This is exemplified by the study of Walsh et al. (2013) with doctoral students and senior staff in the STEM fields (science, technology, engineering, mathematics). These participants conceptualised creativity as *novelty and problem solving*, *innovation* or *resourcefulness* (making the most of existing resources), although some of them experienced that there was no enough time, nor sufficient resources to actually be creative.

It should be noted though that the research problem is usually formulated by the supervisors themselves in the STEM fields, which excludes the students from an essential part of creative thinking (e.g. see Marie 2008). On the other hand, such educational conditions could be understood as ‘collective creativity’ that may be conducive to the doctoral students’ epistemic socialisation (Hakkarainen et al. 2014), enabling them to understand which knowledge contributions would be recognised in their own discipline. The importance of disciplinary understanding for creativity is highlighted by Golde (2006), and it has also been observed in interdisciplinary doctoral education where the students need to deal with, integrate and prioritise between different disciplinary values (Brodin and Avery 2014).

### Context and purpose of this study

This study was conducted in Sweden. Swedish doctoral education extends over 4 years, including parallel course work. Since 1998, students can no longer be admitted to doctoral education without complete funding. Most newly admitted doctoral students are therefore employed at the university, and their salaries are usually paid either by the supervisors’ external funding or by the faculty. It is also regulated that the student should have (at least) two supervisors. While monographs still dominate some fields, doctoral theses by publications can nowadays be found in almost any discipline.

Until recently, Sweden had only one kind of doctoral degree regulated at national level, which was comparable with a PhD. Since 2010, there is also a doctoral degree in Fine Arts. Irrespective of form, the demand for doctoral students’ creativity is regulated in the Swedish Higher Education Ordinance. For instance, for a degree of doctor, the student shall do the following:

- demonstrate the ability to identify and formulate issues with scholarly precision critically, autonomously and creatively...
- demonstrate through a dissertation the ability to make a significant contribution to the formation of knowledge through his or her own research...

(Swedish Higher Education Ordinance 1993:100, Annex 2)

These qualifications hold for the artistic context as well, although the student in the fine, applied and performing arts shall ‘demonstrate creative capacity in his or her artistic field’, work with ‘artistic’ issues and tasks and produce a ‘documented artistic research project’ instead of a dissertation.

The current study is part of a larger project on doctoral students’ and their supervisors’ experiences of critical and creative thinking in four disciplines: musical performance, pedagogical work, philosophy and psychiatry. Earlier studies within the project have focused on the general relationship between critical and creative thinking from a doctoral student perspective and showed that the educational demand for critical thinking tended to overshadow the students’ potential scope for scholarly creativity (Brodin 2015, 2016). Against this background, the purpose of the current study was twofold: The first aim was to illuminate different shapes of creativity in doctoral education through the body of four disciplinary cases, while the second aim was to reveal and find possible explanations to some of the conditions stifling doctoral students’ scholarly creativity.

## Methodology

### Critical hermeneutics

In order to gain a deeper understanding of the constrained conditions for creativity in doctoral education, there is a need for a methodology which helps shed light on underlying power relationships. Hence, this study is underpinned by critical hermeneutic philosophy. With reference to Roberge (2011), critical hermeneutics focuses on the ‘*fine dialectic* of meaning, action, and experience’ (p. 6) with the purpose of revealing the ideological constitution of reality. The dialectic aspect points to a reality that is full of tensions and contradictions, but which nonetheless reside in the same world, while ‘anything within meaning, action or experience that prevents the subject’s autonomy from understanding and expressing itself could be argued as fundamentally ideological’ (Roberge 2011, p. 15).

To date, there are no established methods for using critical hermeneutics in pedagogical empirical studies, but researchers have selected some key concepts from this philosophy that are helpful for the understanding of complex phenomena (Claesson et al. 2011). In this context, certain attention is given to the *ideal notion* of creativity, the *experienced demand and scope* for creativity and its *shape in practice* within four disciplinary cases in doctoral education. Altogether, these cases reveal some of the *stifling conditions* for doctoral students’ creativity, which could be explained by the ruling agendas and their underlying ideology in practice. Since critical hermeneutics also aims at emancipation from restraining power relationships (Leonardo 2003; Trede et al. 2008), this article contributes with some suggestions to encourage doctoral students’ creativity in practice.

### Disciplinary cases and participants

This study involves 28 participants in four disciplinary cases. Altogether, the cases were constituted by 14 dyads of doctoral students (D) and supervisors (S) from the *disciplines* and faculties of the following: *musical performance* in the fine, applied and performing arts (dyads: mu 1–4), *pedagogical work* in education (dyads: pe 1–4), *(theoretical) philosophy* in the humanities (dyads: ph 1–3) and *psychiatry* in medicine (dyads: ps 1–3). Within each disciplinary case, the students came from at least two universities. In the overall sample, they were located at four universities, whereas their supervisors were placed at six. The students consisted of five men and nine women, while the supervisors comprised ten men and four women.

When data was collected, the students had completed at least half of their doctoral period and most of them were expected to graduate within 1 year. Most students worked almost full time with their dissertation in their departments, while some students had professional duties outside academia in parallel with their doctoral studies. Nine students (from three disciplines) wrote monographs, and five students (from two disciplines) wrote theses by publication. The supervisors’ experience of research supervision ranged from 2 to 30 years, and half of them had at least 10 years’ experience.

### Data collection

Data was collected through semi-structured individual interviews covering the participants’ experiences of creative thinking in doctoral education. In accordance with the methodological

approach of this study, no interview questions were based on current theoretical definitions of creativity (e.g. by asking for novelty or relevance). Instead, the participants were invited to capture creative thinking in their own words, for example, in relation to what this phenomenon meant to them, how it was needed when conducting doctoral work and how it was valued in their educational practice according to their experiences. Since most participants did not make a distinction between ‘creative thinking’ and ‘creativity’, and since the latter notion encompasses the former, the notion of ‘creativity’ will be used in results and discussion. All interviews were recorded, transcribed verbatim and validated by the participants before analysis.

## Analysis

Data was collected and analysed by the author who has a PhD in education and extensive experience of conducting faculty-wide research and developmental work on doctoral education. Interpretative analysis based on lifeworld hermeneutics was used for analysing data. According to Dahlberg et al. (2008), there are no predefined procedures for conducting such analyses, but the goal is to ‘understand and explain structures and patterns that are not fully overt’ (p. 282) in certain contexts. Predefined notions or theories (e.g. of creativity) should thus be avoided as hermeneutic analyses aim at seeing the *otherness* in data and hence widening one’s current understanding through the integration of new meanings. Therefore ‘many hermeneutics not only search for meaning, they also ask *why* this meaning transpire[s]’ (p. 280), while data is interpreted through the analyst’s *dialogue* with the text by moving from the whole to the parts and back again.

Initial attention was directed towards *why* the demands for doctoral students’ creativity were experienced differently among the participants. This led to the further questions of what ideal creativity meant to them, what it meant in practice—and how these entities were aligned.

In the first step of the analysis, the collective *ideal notion of creativity* was outlined in each disciplinary case by detecting keywords and meanings that recurred in the participants’ descriptions of genuine creativity—as it would be recognised in their educational context. An interpretative summary was then made of these keywords and meanings.

Subsequently, this ideal construct was used as a reference point to grasp the underlying meanings of the participants’ experienced demands and educational opportunities for doctoral students’ creativity. This latter interpretative analysis was based on interpretative readings of the sections that treated these topics, which enabled metaphorical abstractions of the overall *shape of creativity* in each case.

Finally, focus was directed towards identifying conditions that limited doctoral students’ creativity as they appeared across the cases. This last analysis firstly implied interpretation of the most significant theme that captured the conditional core meaning of creativity and occurred in all cases. Thereafter, the different conditions for creativity were identified and explained in relation to this core and its underlying ideology by asking *when* and *why* these conditions appeared in the text (including at least three cases for each condition).

The manuscript was sent to the participants for consent before publication, and all quotations are translated from Swedish to English in the results.

## Results

At its most general level, the students' doctoral work was associated with scholarly creativity in one way or another in all the disciplinary cases. However, the shape and scope of the students' creativity varied from one context to the other.

### Creativity keeps on playing: the case of musical performance

#### *Ideal notion of creativity in doctoral education*

In the case of musical performance, the creative aspects of doctoral work were connected to the students' art rather than their scholarship. This could be explained by the fact that the students' own musical creations constituted the very object of their doctoral studies, premised on artistic creativity. With this circumstance in mind, ideal creativity implied that the student was a self-expressive and adventurous musician who created new and personal art, dared to take risks in music, and thereby was able to affect the audience.

#### *Experienced demand and scope for creativity*

Since the students were well-established professional artists, they were supposed to be creative right from the beginning of their doctoral studies. Accordingly, the most explicit demand for creativity in doctoral education was associated with the admission phase, and thereafter, it was taken for granted that the students would continue to be musically creative. Nevertheless, it was not always easy to combine artistic creativity with critical scholarship, and sometimes the latter took the upper hand:

Interviewer: Do you experience demands that you should express your creative thinking in doctoral education?

Dmu2: Yes, that's a part of it, for sure. I've been so focused on scholarly writing and critical thinking, so when I handed in my research plan two years ago, the director of doctoral education said: "How can you bring in the creative aspect?" And then it was like: *Whoops, I've missed that part*. I was so focused on the other part [being critical of historical sources and describing the historical context of the music]. It's come up in supervision and at seminars as well, that I should bring in my music a little bit more.

Even though the experienced demand for creativity was primarily related to the students' artistic practice, the issue of scholarly creativity was also brought up in the interviews. In connection with artistic research, this basically implied that the students had to make new interpretations of their musical practice by means of relevant literature and feasible theories from other disciplinary fields, since their own scholarly field had not (yet) developed such tools. Thus it was a matter of 'testing one's creativity in a new zone' as Dmu1 expressed it, and the supervisor of this student further explained that as follows:

The theoretical work, if you hard-draw the terminology slightly, is very closely associated with the creative work, to create. A researcher from here can pick up philosophical thoughts quite eclectically under the condition that these thoughts are important for this person's creative activity. They're not forced to motivate why this thought is important: *What other thoughts have existed that are at least as important? And why don't you care*



*about them?* You don't have to do that in this discipline. There's another relationship to the sources. I think it has to do with creativity and the creative process in that way, and that it also has an impact on creativity and the artistic results. (Smu1)

Also, all supervisors more or less explicitly associated scholarly creativity with the students' task of transferring and formulating their artistic processes into words and hence of making their art of creation visible and relevant to others. Even if this could be a true creative challenge, the written reflections of the dissertations were seldom spontaneously described as 'creative' as such. Instead, the students' creativity was a silent phenomenon in relation to both the scholarly and artistic parts of the doctoral work:

Interviewer: When you discuss artistic dissertations in this discipline – do you ever say that *this is a creative thesis*?

Smu1: No you don't. I haven't really heard that, no. I mean, artists themselves don't use the concept of creativity all that often. Someone might say "that's a creative person", but you don't use the concept very often.

### *Shape of creativity in practice*

In this case, creativity had its very origin and end in the students' artistic practice. Accordingly, the shape of doctoral creativity appeared to be that it *keeps on playing* in the music.

## **Creativity as an unexpected guest: the case of pedagogical work**

### *Ideal notion of creativity in doctoral education*

In the case of pedagogical work, ideal creativity was connected to accomplishing an original and masterly research craft, expressed in telling texts. The more original results, the better, as long as the student had a deep theoretical understanding and mastered the methodological tools.

### *Experienced demand and scope for creativity*

In this case, Dpe4 was the only student who experienced a demand for scholarly creativity—although not in a wider sense, as it mainly implied analysing and 'writing about your data in accordance with the existing traditions'. The supervisor (Spe4) of this student agreed that there was some demand for creative thinking in doctoral education, although for another reason. According to Spe4, the students were encouraged to broaden their methodological skills in, for example, courses where they were instructed to try other methods and theories than those already used in relation to their thesis work.

In contrast to these conceptions, creativity was rather considered as a 'bonus' in Dpe3's view, and Dpe2 admired those scholars who managed to be creative:

Interviewer: Do you experience demands that you should express your creative thinking in doctoral education?

Dpe2: No, maybe way too little.

Interviewer: So you haven't noticed a demand for creative thinking?

Dpe2: If you mean that it's still expressed in the demand for originality and coming up with something new – it shouldn't only be repetition, but it should contribute with new



knowledge – and if you can produce new knowledge, then I find it extremely creative... but it isn't easy to come up with something madly new.

Since the issue of creative thinking was generally not emphasised in the students' environment, the meaning of scholarly creativity was sometimes shrouded in total mystery. This was the case for Dpe1, who had no difficulties describing teachers' creativity, but initially found it very hard to grasp what scholarly creativity might entail, asking 'I wonder what I have to do with creativity?' An explanation to this uncertainty appeared later in the interview when Dpe1 explained that 'no one asks for creative thinking'. The silence around the students' creativity was confirmed in the supervisor interview:

I think all people are aware of and talk about critical thinking. When it comes to creative thinking, maybe we're not quite as clear in making it explicit. At the same time I hope it's there, that doctoral students are expected to come up with their own ideas and should be allowed to develop them. (Spe1)

The silent conversation about scholarly creativity was also indirectly confirmed by another supervisor, Spe3, who was located at a different university and thought that as follows:

Most dissertations aren't particularly creative, or particularly original. They'll pass anyway. I've never heard about anything that's been – failed as such is unusual – but even questioned because of a lack of creativity. (Spe3)

Instead of being creative, the students in pedagogical work were directed towards becoming compliant scholars:

I think that the demands are really the opposite [of creative thinking]. Doctoral students need to show their adaptability and ability to follow scholarly rules. If you do it with a creative drive, then you may have a dissertation a little bit out of the ordinary. However, first and foremost I think that people *aren't* encouraged to be creative and to create in doctoral education. Instead it's a matter of understanding the meaning of scholarly concepts and what they mean for instance, and to be able follow them, rather than being creative and thinking differently. But I don't know whether this is a good or bad thing, but I do think it's good that you get a deep understanding of what stringent research looks like and what isn't such good research. (Spe2)

### *Shape of creativity in practice*

In the case of pedagogical work, the students' creativity was not explicitly requested in practice, and they were primarily supposed to comply with current scholarly traditions. At the same time, one supervisor (Spe1) expressed 'hope' for doctoral students' creativity. The shape of creativity was in this case therefore interpreted as *an unexpected guest*.

## **Creativity captured in frames: the case of philosophy**

### *Ideal notion of creativity in doctoral education*

In the context of philosophy, ideal creativity implied autonomously making critical turns with new and appreciated insights when dealing with a problem. This entailed that the creative

student critically identified new and interesting problems, discovered rational and novel solutions or interpretations in relation to these problems and created a coherent string of ingenious arguments that constructively handled opposite views. Altogether, these processes made it possible for the student to convince peers of the value of the reasoning as a whole.

### *Experienced demand and scope for creativity*

With the all-embracing ideal notion in mind, supervisors and students alike experienced an ‘implicit’ but nevertheless palpable demand for creativity in doctoral education. However, especially the students (but also some supervisors) stressed that doctoral students were not encouraged to go beyond the traditional frames:

In *one* way there are quite high demands of creativity as you need to *create* something out of nothing [without having empirical data]. There *is* a demand for creativity, although *within* very firm frames, so you have to accept a lot of things that are not self-evident at all. And you may not be creative with those things, but *within* this framework you must be creative. (Dph1)

Against this background, both the supervisors and students pointed out that the criticism towards doctoral students’ thesis work could be very harsh in philosophy. For instance, when a student had not complied with the environment’s overall scholarly traditions, then it could be a matter of ‘very much fault-finding and pointing out deficiencies, not only in a detail or an argument, but rather that the whole idea was completely wrong from the beginning’ (Dph3). Several participants could also tell stories about doctoral students who had collapsed after they had presented their thesis work at seminars. Thus, the most inhibiting condition for the students’ creativity appeared to be overcritical environments. At the same time, none of the participants expressed support for such practices. Moreover, due to the last educational reform which implied restricted time frames in doctoral education, nit-picking was no longer considered an option:

There is a culture clash here since the system for doctoral students has changed. In former times, people could write their dissertation for ten years or so. But now we only have these four years, so you can’t run the doctoral student’s own idea down, you have to try to take care of it and give response in a better way than you probably did before, because seminars in philosophy used to be extremely critical. (Sph1)

While the decreased study time could facilitate the conditions for students’ creativity in the sense pointed to by Sph1, supervisor Sph2 was concerned that 4 years might not be enough for doctoral students to become creative and ‘fairly mature’ scholars. According to Sph2, the development of scholarly maturity was a slow process that progressed gradually with the students’ independent thesis work. This implied that doctoral students needed time to learn from their own mistakes and find new ways to proceed without too many directions and too much steering from their supervisor. However, Sph2 remarked that ‘the strange thing with today’s fixed-term doctoral studies is that the set-up is actually constructed with the assumption that you’ll succeed with your experiments and get your articles published – and that’s not always the case’. Combined with cases where students carried out their doctoral studies within the supervisor’s externally funded project, Sph2 felt that the power of creative thinking nowadays tended to be displaced from the students to their supervisors. As a consequence, the demand for doctoral students’ creativity was also less noticeable:

I can't recall right now that I've seen the demand for creative thinking, or heard it being discussed so often. Actually, I think it's discussed less and less. I mean, a couple of years ago we might have had such discussions and they would be seen to be valuable. But to hard-draw it, I think that you more frequently see doctoral students who're employed in a project in order to execute a specific task – then this can be both good and bad for creativity. But I think that in somebody else's project it's more likely to be detrimental than good for creativity. (Sph2)

### *Shape of creativity in practice*

With the exception of Sph2, all the philosophers certainly experienced a demand for creativity in doctoral education as long as the students embraced the preferable philosophical frameworks. Nevertheless, the shape of the students' creativity appeared to be *captured in frames*.

### **Creativity put on hold: the case of psychiatry**

#### *Ideal notion of creativity in doctoral education*

In the case of psychiatry, ideal creativity was primarily associated with being independent and having full agency when producing new knowledge that others would find reliable and interesting. In order to be really creative, the student had to be involved in the whole research process, from formulating new hypotheses and designing experiments to publishing the results.

#### *Experienced demand and scope for creativity*

Among the students in psychiatry, Dps2 was the only one who felt a clear demand for being creative in doctoral education, which implied creating new and interesting results. Dps2 was also the only student who had autonomously chosen both research problem and methods for his/her doctoral work. In contrast, the other two students expressed that they only experienced *some* demand for creative thinking as the research ideas had emanated from their supervisors. Hence Dps3 chiefly construed the thesis work as a 'job' in a creative environment, rather than a creative process in itself—and the demand for creativity was limited to 'deliver a dissertation [as] you can't come with old knowledge'. However, scholarly creativity had a wider meaning for the supervisors, who also expressed that the demand instead appeared after doctoral education:

To be *really* creative in a scholarly sense – for us, it implies that you find a question, that you design an experiment: that you're involved all the way. Not just that you take the results as Dps1 has done – that's only half of the creative process. On the other hand, you don't become independent as a doctoral student either, as that's the next step. Later on, when you work as a post doc, then it's more important that you're independent. (Sps1)

Furthermore, Sps1 also thought that doctoral students needed to firstly learn the craftsmanship of doing research (e.g. how to do experiments) before they could be creative. This view

was challenged by supervisor Sps2, who criticised contemporary research conditions in general:

The university, or at least the faculty of medicine, is increasingly more fearful as I can see. You're terrified of anything unusual and terrified of cheating, of disqualification, of someone coming and saying that you haven't done all the things you should have. But you aren't very scared of lacking new thinking and creativity. Rather the opposite is true; it's a bit scary if you happen to be creative and innovative... I think it's sad, especially for those doctoral students who bring their own topic with them and have a strong a commitment for that. Then it can be a bit harder. (Sps2)

However, doctoral students' creativity was not only opposed by the academic community, but by the funding stakeholders as well—especially when the research results contested their interests. This was the case in dyad ps3, where the supervisor informed that as follows:

We've worked with a substance that belongs to a pharmaceutical company, and we haven't been allowed to publish the research results without their permission. Since they're a profit-making company, they're not as interested as we are in publishing things that don't serve them economically, I mean negative data. We are willing to publish negative data as we think it gives a complete picture, but they have been more selective in what they want to have published. And that hasn't been okay with our thoughts on integrity, so instead we've ended up not publishing that set of data. (Sps3)

Nevertheless, according to Sps3, the real constraint to doctoral students' creativity was found in the current admission system:

If you compare with about twenty years ago, I think the doctoral student's possibilities for creativity have decreased. You're much more directed today, because the supervisor applies for a doctoral student project and then you have to define what the project will contain in broad outline. And then the vacancy is advertised so prospective students can apply for the position. You don't want people who come in to the lab and work with their undergraduate thesis and then become doctoral students straight away [like it used to be], rather, you want the competition so you can get the very best. And *maybe* this is positive, I don't know. I don't see it as being so positive for the development of creativity. (Sps3)

### *Shape of creativity in practice*

While ideal creativity implied full agency throughout the research process, the current systems of funding and admission to doctoral education often deprived the psychiatry students of this opportunity. Therefore, the shape of their creativity in this case appeared to be *put on hold*.

### **The stifling conditions for scholarly creativity**

An overview of the disciplinary cases is given in Table 1, where creativity *kept on playing* in musical performance was *an unexpected guest* in pedagogical work, was *captured in frames* in philosophy and *put on hold* in psychiatry.

In those cases where the participants either experienced non-existing or only low demands for creativity, there was a gap between the ideal notion of students' creativity and the

**Table 1** Experiences of creativity in doctoral education

Disciplinary case	Ideal notion of creativity in doctoral education	Dyad	Educational location	Demand for creativity		Shape of creativity in educational practice
				Yes	No	
Musical performance (mu)	Create self-expressive and adventurous music that affects the audience	mu 1	a	S + D		Creativity keeps on playing
		mu 2	b <sup>a</sup>	S + D		
		mu 3	b	S + D		
		mu 4	b <sup>a</sup>	S + D		
Pedagogical work (pe)	Accomplish original and masterly research craft that is expressed in telling texts	pe 1	c	(S)	D	Creativity an unexpected guest
		pe 2	c <sup>a</sup>		S + D	
		pe 3	d		S + D	
		pe 4	d <sup>a</sup>	(S) + (D)		
Philosophy (ph)	Autonomously make critical problem turns with new insights appreciated by peers	ph 1	e	S + D		Creativity captured in frames
		ph 2	e	D	S	
		ph 3	f <sup>a</sup>	S + D		
Psychiatry (ps)	Produce new, reliable and interesting knowledge with full agency and independence in the process	ps 1	g	(D)	S	Creativity put on hold
		ps 2	h <sup>a</sup>	D	S	
		ps 3	i	(D)	S	

S supervisor, D doctoral student

(S), (D) only low educational demand for doctoral students' creativity, not completely matching the ideal

<sup>a</sup> The supervisor was located at another institution/department than the student

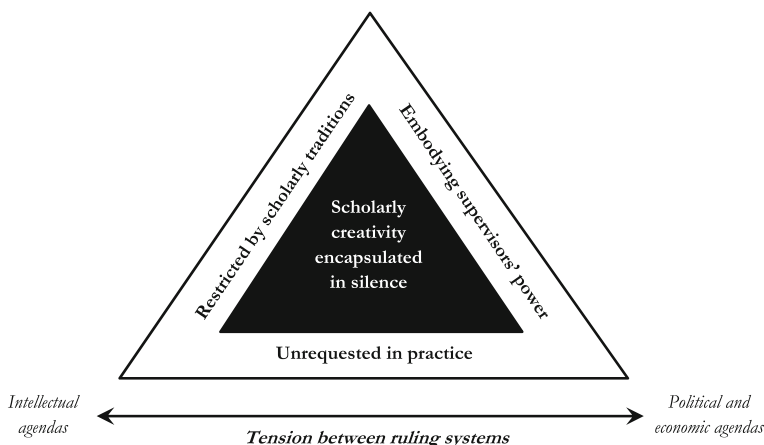
experienced educational possibilities to realise this ideal. This circumstance could no doubt be explained by a range of inhibitory factors (e.g. limited time frames and controlling funders). The most striking insight from these cases, however, is that the students' scholarly creativity was constantly *encapsulated in silence*. In the case of musical performance, this silence could be noticed in the emphasis on students' artistic creativity rather than scholarly creativity. Otherwise the silence showed itself in that the students' creativity was 'implicitly' requested in philosophy, unexpected in pedagogical work and frequently impossible in psychiatry. These findings suggest that an explicit discourse on scholarly creativity was frequently missing in the studied cases, which led to stifling conditions, where creativity was *restricted by scholarly traditions, embodying supervisors' power* and *unrequested in practice*. These conditions are outlined in Fig. 1 in relation to the ruling systems in doctoral education, with a tension between the intellectual agendas on the one hand and the political and economic agendas on the other hand.

An orientation towards intellectual agendas in Fig. 1 does not rule out the supervisor's power. Likewise, an orientation towards political and economic agendas does not exclude traditional scholarly frames. Rather, the figure shows that the latter orientation tends to weaken the doctoral students' own creativity. For instance, most doctoral studies in this direction are externally funded within the supervisor's project. Regardless of orientation, doctoral students' creativity was seldom requested in practice.

## Discussion

### Scholarly creativity encapsulated in stifling silence

At first sight, the silence around the students' scholarly creativity could be excused by the economic, political and intellectual agendas that frame contemporary doctoral educational practice (Lee and Boud 2009; Elmgren et al. 2016). The constraints from these agendas were confirmed in the interviews, since tensions between the funding system, stakeholders' interests, limited time frames and disciplinary traditions were frequently mentioned as inhibitory



**Fig. 1** Stifling conditions for doctoral students' scholarly creativity

factors to doctoral students' creativity. Such constraints have also been observed in other empirical studies (Brodin 2016; Brodin and Avery 2014; Walsh et al. 2013). Yet, if one asks what these agendas represent, the silence around doctoral creativity comes into a different light.

Even though there is a tension between the intellectual agendas versus the political and economic agendas, these poles nevertheless appear to share the same underlying ideology: *to keep control*. In practice, this ideology shapes doctoral students' scholarly creativity into three forms, in which creativity may be *restricted by scholarly traditions*, *embodying supervisors' power* and paradoxically also *unrequested in practice*. All these stifling conditions of creativity thrive in silence.

### *Restricted by scholarly traditions*

The students' creativity tended to be restricted by scholarly traditions. The musicians were the only exception, since artistic research is eclectic and their discipline still lacked such traditions. Otherwise, the grip of scholarly traditions appeared clearly in philosophy, where the students were certainly encouraged to think creatively, although not beyond the norms in their environment. It was also manifested in pedagogical work and psychiatry, where compliant apprenticeship was more important than developing creativity.

Against this background, it appears that most students' creativity was generally kept back at mini-c and little-c levels, which implies individual learning and creation of something new but not particularly original (Kaufman and Beghetto 2009). Such knowledge development may, in Lovitts' (2007) terms, lead to a *very good dissertation* that is well-written although not significant in relation to the research field. However, it should be noted that limited originality is not unique for doctoral education, as most research contributions in academia correspond to cumulative knowledge development (Bennich-Björkman 1997; Kuhn 1962). Kuhn (1962) calls this *normal science*, which 'is directed to the articulation of those phenomena and theories that the paradigm already supplies' (p. 24). However, considering the students' restricted scope of creativity, so-called normal science could instead be interpreted as *internally controlled scholarship*.

### *Embodying supervisors' power*

Lee and Boud (2009) emphasise that doctoral students have become embedded in complex social practices which involve many significant people beyond the supervisor. As a consequence of the Bologna process, they also point to a shift from 'research' to 'training' in doctoral education. For instance, this is evident in Jones' (2013) study of published articles on doctoral education between the years of 1971 and 2012, where most articles focused on doctoral programme design.

Reasonably, extended networks and a raised awareness around educational issues should be conducive to doctoral students' creative development. However, political and economic agendas sometimes work in the other direction in doctoral education (e.g. see Marie 2008). In the current investigation, this was especially palpable among the psychiatry students who executed their supervisors' ideas in externally funded projects. Such procedures were nevertheless questioned by the supervisors themselves, recalling when the admission system allowed students to choose their own research problem and hence be more creative. Thus, political and economic agendas actually legitimise supervisors' suppression of doctoral



students' creativity. Yet in this study, it appeared to be against the supervisors' will, as they experienced the negative aspects of *externally controlled scholarship*.

With respect to the cases of pedagogical work and philosophy, where external funding was not predominant to the same extent, the students' creativity still embodied traces of the supervisors' power, since the supervisors ultimately functioned as disciplinary gatekeepers. And once again, the students in musical performance were comparatively protected from control, as their supervisors did not direct their art.

### *Unrequested in practice*

The results indicate that scholarly creativity was not always requested in doctoral educational practice. In musical performance, the request for scholarly creativity was subordinated to the request for musical creativity. In other terms, art was still the ruling agenda. However, this did not necessarily restrict the artistic students' scope of scholarly creativity as they did not have to submit themselves to certain scholarly traditions or embody the supervisors' power. In other cases, the admission system often required an original proposal from the applicants, although once the students were admitted, they were supposed to comply with the scholarly traditions. In the case of pedagogical work, this also implied fewer expectations on the students' creativity and therefore it was not requested in practice. In contrast, the psychiatry students tended to be strictly controlled by their supervisors' directions throughout the research process; hence, their creativity was commonly not requested at all. For the same reason, one supervisor in philosophy was concerned that recent political and economic agendas tended to push students' creativity away from the ideal in their environment towards embodying the supervisors' power—with no more requirements for doctoral students' creativity.

Even though external factors can certainly confine the scope for students' creativity, the findings from this study point to a need for stronger educational leadership and doctoral supervision pedagogy in some places. With reference to Macfarlane (2012), this includes 'students being allowed or empowered to make their own decisions about their study environment and being unshackled from assumptions about their level of maturity' (p. 731). Although Macfarlane directs his attention to critical thinking in undergraduate education, this statement is equally true as regards scholarly creativity in doctoral education. If one actually *believes* in doctoral students' creative capability and, in so doing, empowers them in their *aspiration* to realise their potential, this can become the next ruling intellectual agenda. Then their scholarly creativity will find a voice, breaking through the silence in doctoral education.

### **Limitations of this study**

This is a small-scale study based on the voices from 14 doctoral students and their supervisors in four disciplinary cases in Swedish doctoral education. Hence, generalisations of the findings should be avoided and too much emphasis cannot be placed on the disciplinary foundations in this study.

To the extent that the specific discipline matters for doctoral students' future 'stewardship' and ways to create knowledge (Golde 2006), it could be claimed that the results in this study were *possible* to detect *because* of their disciplinary contexts. Nevertheless, doctoral students' creativity may well be shaped in similar ways in other disciplines than those included here. Also, each discipline may involve more than one shape of creativity, since its shapes are dependent on the specific doctoral pedagogy and institutional context. Moreover, it should be

recalled that this study focused on some of the *impeding* conditions for doctoral students' scholarly creativity in the studied contexts, which meant that details concerning supportive conditions in these contexts were not close examined.

## Conclusion and suggestions for practice

The most significant result from this study was the silence surrounding the doctoral students' scholarly creativity. This silence enabled ruling systems that controlled the students and restricted their creative scope by not requesting their creativity in practice. In order to prevent such stifling conditions for doctoral students' scholarly creativity, three measures are suggested for those educational practices where this might be needed. Firstly, to *establish a discourse on scholarly creativity* in doctoral education that permits constructive shapes of doctoral students' creativity and secondly, to *view doctoral students as capable creative agents*. Although it certainly requires an ample amount of disciplinary knowledge to reach the audience in a specific context, the contribution of supervisors and other senior scholars would be more fruitful if, instead of being gatekeepers, they were to function as valuable intellectual resources in this regard. Finally, considering that individuals tend to behave in accordance with social expectations (Bandura 1997), a third measure could be to actually *ask for scholarly creativity* in doctoral education.

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## References

- Andres, L., Bengtsen, S. S. E., del Pilar Gallego Castaño, L., Crossouard, B., Keefer, J. M., & Pyhältö, K. (2015). Drivers and interpretations of doctoral education today: national comparisons. *Frontline Learning Research*, 3(3), 5–22.
- Association of American Universities (1998). AAU committee on graduate education. Report and recommendations. [www.aau.edu](http://www.aau.edu).
- Australian Qualifications Framework Council (2013). Australian qualifications framework. Second edition. [www.aqf.edu.au](http://www.aqf.edu.au).
- Bandura, A. (1997). *Self-efficacy: the exercise of control*. New York: Freeman.
- Baptista, A., Frick, L., Holley, K., Remmik, M., Tesch, J., & Åkerlind, G. (2015). The doctorate as an original contribution to knowledge: considering relationships between originality, creativity, and innovation. *Frontline Learning Research*, 3(3), 55–67.
- Beghetto, R. A. (2010). Creativity in the classroom. In J. C. Kaufman & R. J. Sternberg (Eds.), *The Cambridge handbook of creativity* (pp. 447–463). New York: Cambridge University Press.
- Bengtsen, S. S. E. (2017). An exploration of darkness within doctoral education: creative learning approaches of doctoral students. In C. Zhou (Ed.), *Handbook of research on creative problem-solving skill development in higher education* (pp. 260–282). Hershey: IGI Global.
- Bennich-Björkman, L. (1997). *Organising innovative research: the inner life of university departments*. Oxford: Pergamon IAU Press.
- Brodin, E. M. (2015). Conditions for criticality in doctoral education: a creative concern. In M. Davies & R. Barnett (Eds.), *The Palgrave handbook of critical thinking in higher education* (pp. 265–282). New York: Palgrave MacMillan.
- Brodin, E. M. (2016). Critical and creative thinking nexus: learning experiences of doctoral students. *Studies in Higher Education*, 41(6), 971–989. Published on-line 31 July 2014.
- Brodin, E. M., & Avery, H. (2014). Conditions for scholarly creativity in interdisciplinary doctoral education through an Aristotelian lens. In E. Shiu (Ed.), *Creativity research: an inter-disciplinary and multi-disciplinary research handbook* (pp. 273–294). London: Routledge.

- Claesson, S., Hallström, H., Kardemark, W., & Risenfors, S. (2011). Ricœurs kritiska hermeneutik vid empiriska studier. *Pedagogisk Forskning i Sverige*, 16(1), 18–35.
- Clarke, G., & Lunt, I. (2014). The concept of ‘originality’ in the Ph.D: how is it interpreted by examiners? *Assessment & evaluation in higher education*, 39(7), 803–820.
- Cloete, N., Mouton, J., & Sheppard, C. (2015). *Doctoral education in South Africa: policy, discourse and data*. Cape Town: African Minds [www.chet.org.za](http://www.chet.org.za).
- Dahlberg, K., Dahlberg, H., & Nyström, M. (2008). *Reflective lifeworld research*. Lund: Studentlitteratur.
- Elmgren, M., Forsberg, E., Lindberg-Sand, Å., & Sonesson, A. (2016). The formation of doctoral education. <https://uu.diva-portal.org/smash/get/diva2:916582/FULLTEXT01.pdf>.
- Enders, J., & de Weert, E. (Eds.). (2009). *The changing face of academic life: analytical and comparative perspectives*. Basingstoke: Palgrave Macmillan.
- Fenge, L.-A. (2012). Enhancing the doctoral journey: the role of group supervision in supporting collaborative learning and creativity. *Studies in Higher Education*, 37(4), 401–414.
- Frick, B. L. (2011). Supervisors’ conceptualisations of creativity in education doctorates. *Pertanika Journal of Social Sciences & Humanities*, 19(2), 495–507.
- Frick, B. L., Brodin, E. M., & Albertyn, R. M. (2014). The doctoral student-supervisor relationship as a negotiated learning space. In L. Scott-Webber, J. Branch, P. Bartholomew, & C. Nygaard (Eds.), *Learning space design in higher education* (pp. 241–262). Faringdon: Libri Publishing.
- Gardner, S. K. (2008). “What’s too much and what’s too little?”: the process of becoming an independent researcher in doctoral education. *The Journal of Higher Education*, 79(3), 326–350.
- Golde, C. M. (2006). Preparing stewards of the discipline. In C. M. Golde & G. E. Walker (Eds.), *Envisioning the future of doctoral education: preparing stewards of the discipline. Carnegie essays on the doctorate* (pp. 3–22). San Francisco: Jossey-Bass.
- Hakala, J. (2009). The future of the academic calling? Junior researchers in the entrepreneurial university. *Higher Education*, 57(2), 173–190.
- Hakkarainen, K. P., Wires, S., Keskinen, J., Paavola, S., Pohjola, P., Lonka, K., & Pyhältö, K. (2014). On personal and collective dimensions of learning in doctoral training: medicine and natural science programs. *Studies in Continuing Education*, 36(1), 83–100.
- Hakkarainen, K., Hytönen, K., Makkonen, J., & Lehtinen, E. (2016). Extending collective practices of doctoral education from natural to educational sciences. *Studies in Higher Education*, 41(1), 63–78.
- Jones, M. (2013). Issues in doctoral studies—forty years of journal discussion: where have we been and where are we going? *International Journal of Doctoral Studies*, 8, 83–104.
- Kaufman, J. C., & Beghetto, R. A. (2009). Beyond big and little: the four C model of creativity. *Review of General Psychology*, 13(1), 1–12.
- Kehm, B. M. (2009). Doctoral education: pressures for change and modernisation. In J. Enders & E. de Weert (Eds.), *The changing face of academic life: analytical and comparative perspectives* (pp. 155–170). Basingstoke: Palgrave Macmillan.
- Kuhn, T. (1962). *The structure of scientific revolutions*. Chicago: The University of Chicago Press.
- League of European Research Universities (2014). Good practice elements in doctoral training: follow-on to the LERU paper ‘doctoral degrees beyond 2010: training talented researchers for society’. *Advice paper, no. 15, January 2014*. [http://www.leru.org/files/publications/LERU\\_AP\\_15\\_Good\\_practice\\_elements\\_in\\_doctoral\\_training\\_2014.pdf](http://www.leru.org/files/publications/LERU_AP_15_Good_practice_elements_in_doctoral_training_2014.pdf).
- Lee, A., & Boud, D. (2009). Framing doctoral education as practice. In D. Boud & A. Lee (Eds.), *Changing practices of doctoral education* (pp. 10–25). London: Routledge.
- Leonardo, Z. (2003). Interpretation and the problem of domination: Paul Ricoeur’s hermeneutics. *Studies in philosophy and education*, 22(5), 329–350.
- Lovitts, B. E. (2007). *Making the implicit explicit. Creating performance expectations for the dissertation*. Sterling: Stylus.
- Lovitts, B. E. (2008). The transition to independent research: who makes it, who doesn’t, and why. *The Journal of Higher Education*, 79(3), 296–325.
- Macfarlane, B. (2012). Re-framing student academic freedom: a capability perspective. *Higher Education*, 63(6), 719–732.
- Manathunga, C. (2017). Intercultural supervision: the centrality of place, time and other forms of knowledge. *Arts and Humanities in Higher Education*, 16(1), 113–124.
- Marie, J. (2008). Postgraduate science research skills: the role of creativity, tacit knowledge, thought styles and language. *London Review of Education*, 6(2), 149–158.
- McAlpine, L. (2012). Identity-trajectories: doctoral journeys from past to present to future. *Australian Universities’ Review*, 54(1), 38–46.
- McWilliam, E., & Dawson, S. (2008). Teaching for creativity: towards sustainable and replicable pedagogical practice. *Higher Education*, 56(6), 633–643.

- Mullins, G., & Kiley, M. (2002). It's a PhD, not a Nobel prize: how experienced examiners assess research theses. *Studies in Higher Education*, 27(4), 369–386.
- Roberge, J. (2011). What is critical hermeneutics? *Thesis Eleven*, 106(1), 5–22.
- Swedish Higher Education Ordinance SFS 1993:100 including the act on amendment of the higher education ordinance (2014:1096) Annex 2. <https://www.uhr.se/en/start/laws-and-regulations/Laws-and-regulations/The-Higher-Education-Ordinance/Annex-2/>.
- Tonbul, Y. (2014). A comparative study of selection, training and advisory practices for doctoral education. *Eurasian Journal of Educational Research*, 55, 263–282.
- Trede, F., Higgs, J., & Rothwell, R. (2008). Critical transformative dialogues: a research method beyond the fusion of horizons. *Forum: Qualitative Social Research*, 10(1), Art. 6. <http://www.qualitative-research.net/index.php/fqs/article/view/1186/2603>.
- Walsh, E., Anders, K., Hancock, S., & Elvidge, L. (2013). Reclaiming creativity in the era of impact: exploring ideas about creative research in science and engineering. *Studies in Higher Education*, 38(9), 1259–1273.
- Whitelock, D., Faulkner, D., & Miell, D. (2008). Promoting creativity in PhD supervision: tensions and dilemmas. *Thinking Skills and Creativity*, 3(2), 143–153.
- Wisker, G. (2015). Developing doctoral authors: engaging with theoretical perspectives through the literature review. *Innovations in Education and Teaching International*, 52(1), 64–74.
- Wisker, G., & Robinson, G. (2014). Experiences of the creative doctorate: minstrels and white lines. *Critical Studies in Teaching and Learning*, 2(2), 49–67.
- Zacher, H., & Johnson, E. (2015). Leadership and creativity in higher education. *Studies in Higher Education*, 40(7), 1210–1225.