"I didn't want to be a troublemaker" – doctoral students' experiences of change in supervisory arrangements

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Abstract

Purpose – During the lengthy process of PhD studies, supervisory changes commonly occur for several different reasons, but their most frequent trigger is a poor supervisory relationship. Even though a change in supervisors is a formal bureaucratic process and not least the students' rights, in practice it can be experienced as challenging. Therefore, the purpose of this study is to explore how doctoral students experience a change in supervisory arrangements.

Design/methodology/approach – This study highlights the voices of 19 doctoral students who experienced at least one supervisory change during their doctoral studies.

Findings – The findings were structured chronologically, revealing the students' experiences prior, during and after the changes. In total, 12 main themes were identified. Most of the interviewed students experienced the long decision-making processes as stressful, difficult and exhausting, sometimes causing a lack of mental well-being. However, once the change was complete, they felt renewed, energized and capable of continuing with their studies. It was common to go through more than one change in supervisory arrangements. Further, the students described both the advantages of making a change yet also the long-lasting consequences of this change that could affect them long after they had completed their PhD programs.

Originality/value – The study fulfills an identified need to investigate the understudied perspective of doctoral students in the context of change in supervisory arrangements. A change in the academic culture is needed to make any changes in supervisory arrangements more acceptable thus making PhD studies more sustainable.

Keywords Thematic analysis, Doctoral student, Student experience, Supervisory change

Paper type Research paper

Introduction

"Yes, I think a big lesson is that [change] does not have to be [so dramatic]. Okay, it was a bit dramatic [in my case], maybe, but really [. . .] it doesn't need to be that dramatic to change supervisors. It's just [. . .] It's like just filling out a form. And I think it's important to understand as a doctoral student that it's actually one's right to change supervisors. You are allowed to do that. And I also think that many supervisors think that they are sitting on some kind of knowledge that no one else can convey, but in most cases, there are 20 other potential supervisors who are in line." (interview 19)

PhD education is often compared to a journey, a roller coaster ride or even white water rafting (Schmidt and Umans, 2014; Christie *et al.*, 2008). Many different factors can influence a doctoral student's experiences either positively or negatively and these experiences can change rapidly. On this journey, a student's relationship with her/his supervisor is often singled out as the most important factor for the success of PhD studies. The supervisors and the relationship with them play a central role not only in the doctoral students' outcomes such as degree of completion and attrition but also in the students' overall experience and satisfaction with the program (Pyhältö *et al.*, 2015; Barnes *et al.*, 2010; Devos *et al.*, 2017). When the relationship between doctoral students and supervisors is experienced as something positive and empowering, the two parties are engaged in the process of mutual learning and the more academic seniors enable socialization and acculturation of the juniors into academic life and practices (Lee, 2020; Mendoza, 2007). However, the relationship with the supervisor may also have the potential to develop into something more negative, even to the extent that it might be experienced as destructive by the students. Negative relationships with the supervisors can be primarily explained by the expectation gap where the two parties might prioritize different things. For example, doctoral students might view social support from their supervisors and interaction with them to be the highest priority (Basturkmen *et al.*, 2014), while the supervisors might perceive the importance of financial resources and student characteristics such as motivation and an internal *locus* of control to be of the highest priority (Gardner, 2009).

Over time, the widening of the expectation gap might set the stage for the supervision process and could result in a lack of congruence manifested in misunderstandings, disappointments, demotivation or withdrawal on both sides. Exposed to these incongruencies, doctoral students usually face three main choices:

(1) Remaining in an "unhappy" supervisory relationship;

(2) Quitting; and

(3) Opting for a change in supervisors.

A limited number of studies focus on the choice to remain in an unhappy supervisory relationship (Barnes *et al.*, 2010; Kulikowski *et al.*, 2019; Al Makhamreh and Stockley, 2019; Owens *et al.*, 2020). Those studies usually focus on "overcoming" and emphasize doctoral students' pride in succeeding *despite* negative experiences and supervisory problems (Bryan and Guccione, 2018). Most of the studies explore the second choice – quitting, which is also referred to as attrition. The interest in this choice may be particularly motivated by soaring attrition rates of up to 50% in PhD programs (Groenvynck *et al.*, 2013) and indications of many doctoral students considering quitting their PhD studies (Sowell *et al.*, 2008; Cornér *et al.*, 2017; Schmidt and Hansson, 2018) with a poor supervisory relationship being the primary reason (Jacks *et al.*, 1983).

Although supervision issues were considered the most researched topic in a review in 2018 (Sverdlik *et al.*, 2018), very few studies report on the third choice – change in supervisory arrangements and doctoral students' experiences who make that choice (Wisker and Robinson, 2013; McAlpine *et al.*, 2012). These nascent studies describe doctoral students' experiences of

supervisory change in terms of confusion, rejections and traumatization. They suggest that the change adds to the students' insecurities, decreases their well-being (Wisker and Robinson, 2013; McAlpine *et al.*, 2012) and has long lasting effects on their careers. According to Wisker and Robinson (2013), further exploration of the topic from the doctoral students' perspective is needed. This is important, as doctoral students' negative experiences in the supervisory process in general and of a supervisory change in particular, might be fundamental in shaping the future roles that doctoral students will play in academia and society at large (Barnes *et al.*, 2010; Schmidt and Hansson, 2018).

Responsibilities, duties and supervisors and doctoral students' expectations are often loosely defined or are lacking at the university level and differ between different national contexts (Barnett *et al.*, 2017). For example, in Sweden, the higher education ordinance (SFS, 1993), clearly regulates a change of supervisors and states it as a doctoral student's right. Yet, in general, implementation of supervisory change remains to be an ambiguous process. This ambiguity could be one of the reasons that contribute to the negative experiences of supervisory change, often felt as some sort of failure by one or both parties involved (Wisker and Robinson, 2012; Wisker and Robinson, 2013). Even if both parties do not enter into supervisory relationships with anticipation to change, change in supervisory arrangements is common and happens for various reasons such as retirement, change of workplace or relocation of a supervisor or difficulties in supervisory relationships (Wisker and Robinson, 2012). Further, models of doctoral student supervision vary across countries and PhD programs (Paul *et al.*, 2014). Yet, most commonly discussed in the literature is co-supervision, also referred to as joint or team supervision. In this study, co-supervision implies supervision of one doctoral student by two or more supervisors, of which one is appointed as main or principal supervisor. Roles and responsibilities among supervisors might differ depending on supervisory constellation, can change over time and are often individually agreed on among the supervisors. A plethora of studies so far has focused on the concept of supervision, the nature of the relationship between doctoral students and supervisors and supervisors' styles (Lee, 2020; Gatfield, 2005; Murphy *et al.*, 2007; Gurr, 2001). Yet, most of these studies focus on the supervisors' perspective and shun discussing doctoral students' experiences. Taking a rather positive view, these studies fail to consider that supervision itself might not be the solution for the issues experienced by the doctoral students, but instead can be a cause of the problems, thus overlooking students' negative and damaging experiences of supervision (Wisker and Robinson, 2013).

With an increasing number of doctoral students entering tertiary education (The World Bank [Unesco Institute for Statistics], 2020; Shin *et al.*, 2018), this occupational group has been gaining more attention and rights. Given these gains, doctoral students have become increasingly demanding of their supervisors, expecting them to be trustworthy, good listeners, encouraging, having faith in the student and being knowledgeable and informative (Denicolo, 2004; Barnes *et al.*, 2010). Although these demands can be exhausting for supervisors, they can be explained by doctoral students feeling disoriented, being aware of their dependency position and stressed about juggling competing expectations and financing their studies. From the doctoral students' perspective, to express dissatisfaction with a senior researcher remains to be a challenging and delicate matter due to dependency issues. However, despite the initial stress and negative emotions because of a change in supervisory arrangements, it may also represent the possibility of a new start (Wisker and Robinson, 2012). With increasing demands by employees for better work conditions in academia and elsewhere (Schmidt and Hansson, 2018; Dobre, 2013), doctoral students – mindful of their well-being – might be gradually more weary of remaining in poor supervisory relationships that have shown to decrease their work and life satisfaction

(Schmidt and Hansson, 2018; Evans *et al.*, 2018; Cornér *et al.*, 2017), and thus, are more prone to opt for supervisory change. It is, therefore, important to highlight the students' perspectives and experiences of this process. Thus, the purpose of this study is to explore how doctoral students experience a change in supervisory arrangements.

Material and methods
The study follows a qualitative, explorative design, which is considered suitable for exploring human experiences including people's perceptions, opinions and feelings to shed light on the phenomenon of interest.

Sweden as a context of this study
In Sweden, PhD studies comprise 240 European credit transfer and accumulation system credits (equivalent to four years of full-time studies). Teaching is often part of doctoral students' curricula when they are employed by a university, which can prolong their studies by one to two years. The number of newly enrolled doctoral students and those taking their doctoral degrees during 2018 was similar, coming to a total of around 17,000 doctoral students (SCB [Statistics Sweden], 2019). No gender differences were reported among them in 2018. Of those who started their studies in 2010, 75% gained their degrees after eight years (SCB [Statistics Sweden], 2019). The median age of the students was 32 years. As the majority (64%) of doctoral students are financed by being employed at a university (SCB [Statistics Sweden], 2019), PhD candidates need to apply for the position in competition and cannot choose their supervisors when enrolling. Instead, supervisors and project leaders choose their doctoral students. For supervising a doctoral student in Sweden, one needs to have a PhD. Some universities also mandate completing a doctoral supervisor training course ranging from a few days to a few weeks.

Participants
Participants were recruited by applying purposeful sampling in combination with snowball strategy. Inclusion criteria for participation were being currently enrolled or having been enrolled at a Swedish university for a PhD program (graduation no later than 2010) and having experienced a change in supervisory arrangements. In total, 26 doctoral students were asked to participate in the study of which 19 agreed. Of the remainder, three did not reply and four declined participation.

To start with, three former doctoral students belonging to different subject areas and who had changed their supervisors (which the authors were aware of) were purposefully selected; they all agreed to be part of the study. After the interviews, the three participants were asked if she/he knew other doctoral students who had changed supervisors. These students were contacted by the authors and were asked to participate in the study.

The participants were between 31 and 58 years old (mean = 41.1) and were enrolled in five different universities in Southern Sweden. Of the 19 participants, 15 were women. In total, 12 of the participants had finalized their studies, mainly between 2018 and 2020 (of which two had a licentiate degree). The remainder were still enrolled as doctoral students and were at different stages of their program. Overall, they belonged to 11 different subject areas within social sciences including business-related and health-related subject areas, informatics and psychology.

Data collection
Data were collected from May to October 2020 through face to face, individual interviews with 19 doctoral students. A semi-structured interview guide was used that outlined a set of

issues that were to be explored with each participant. However, the interviews allowed and welcomed openness to changes to follow the stories of the participants. Examples of the main questions are given below:

Introductory questions

- Can you tell me why you started your postgraduate education?
- Could you describe your experiences of your postgraduate education (so far)?

Main questions

- Can you tell me about how do/did you experience your relationship with your supervisor/s?
- What was the reason for the supervisory change?
- How did you experience the process of the supervisory change?
- How did the supervisory change affect you?

Closing questions

- What are your recommendations to other doctoral students who are considering changing a supervisor?

One pilot interview was conducted to test the interview guide, which led to a minimal revision. Thus, the pilot interview was included in the analysis. Seven interviews were conducted in person while the remainder were conducted via the video communication tool Zoom, which guaranteed a face to face conversation. This latter option was mainly used due to current circumstances concerning the COVID-19 pandemic. Five interviews were conducted in English while the remainder were held in the participants' native language, Swedish. On average the interviews lasted 57 min (ranging from 36 to 105 min). All interviews were audio-recorded and transcribed verbatim.

Ethical considerations
The study was conducted in accordance with the Swedish law concerning research involving humans (SFS, 2003). Informed consent was given by all the participants prior to the interviews. The consent letter included information about the aim of the study, the right to withdraw at any given time without providing a reason, that participation was voluntary, that the interviews would be audio-recorded and that material would be stored in a safe way. Further, the participants were informed that the collected data would be treated confidentially and that only the authors of the study would be able to access it. The findings were presented at the group level.

Analysis
Data were analyzed using thematic analysis (TA) by Braun and Clarke (2006, 2019). TA is a method for identifying and interpreting patterns in what people say in data and why. TA is seen as being flexible and can range from a basic descriptive analysis or sematic meaning to the underlying or latent meaning in data. Though not linked to any theoretical framework, it is important to inform which theoretical position TA is being used in (Braun and Clarke, 2006). In this study, the authors applied a "contextualist" method. Thus, the study rests on the assumption that the relationship between doctoral students and supervisors does not exist in a vacuum but is integrated and influenced by certain contexts such as a collegial

environment, the scholarly community and the university or society at large. Further, it entails that the authors acknowledge the way the participants made meaning of their individual experiences but also consider that these individual meanings were influenced by a wider social context (Braun and Clarke, 2006). This "in-between" epistemological position resonates with Willig (2013) assuming that "while experience is always a product of interpretation, and therefore, constructed [. . .] it is nevertheless 'real' to the person who is having the experience" (p. 12). Thus, the authors consider the reality of changing supervisors by exploring the participants' experiences and the meanings they make of it, which are embedded in a social context that influences their meaning making.

TA as proposed by Braun and Clarke (2006) follows a systematic and thorough yet flexible and organic process involving six steps. Step one started with becoming familiar with the data that is the authors read and re-read the interview texts. The next step was organizing the data into meaningful groups. Codes were formed inductively that is they were "data driven" and this step was carried out individually by each author. This step resulted in a list of initial codes. At this stage, the authors could see that the doctoral students' experiences did not differ when it came to a change in the main or co-supervisors, as the change was troublesome regardless of the supervisors' official supervisory role. The third step involved sorting the different codes into potential themes, as well as identifying relationships between codes and themes and different levels of themes. This step was carried out individually by each author and thereafter in collaboration. At this stage, it was decided to structure the results chronologically, implying that the reported experiences of the supervisory change could stretch over an extended period of time. The fourth step, reviewing themes, showed the non-linear process of this analysis as the authors moved back and forth through most of the steps. Here the focus was on re-doing and breaking up themes and forming new themes as the authors started working together and compared their initial, individual work. More attention was paid to internal homogeneity within and external heterogeneity between themes to create clear distinctions between the themes. Step five involved generating clear definitions and names for each theme. Sub-themes were formed when considered necessary. Finally, the sixth step was the production of the report. Here the focus was on selecting appropriate quotations for each theme. The analysis thus, included both the semantic meaning and the latent meaning of the data.

There were regular discussions among the authors during the last three steps till consensus was reached. In this way, the trustworthiness of the results was enhanced (Lincoln and Guba, 1985).

As qualitative research is seen as a creative, reflexive and subjective process, researcher subjectivity is understood as a resource rather than a liability (Braun and Clarke, 2019). Thus, the authors were aware and open-minded about their pre-understanding and reflexivity during the entire research process. Both authors are women close to the mean age of the data sample who have successfully undergone a PhD education. Both authors have also experienced supervisory changes. Thus, it was important for the authors to reflect on their own biases or pre-conceptions and to have member checks, that is, to report back the preliminary findings to the participants for possible feedback to the authors, to verify the results and increase the study's credibility (Lincoln and Guba, 1985). While one author was familiar with qualitative studies and analyzes, the other was familiar with behavioral science. Both authors had experience in conducting research on doctoral students and doctoral student-related outcomes.

Findings
To get an overall understanding of the nature of the participants' often complex situations, the authors now provide an overview of the reported reasons for the changes.

Reasons for a supervisory change
The participants had two–four supervisors prior to the change and after, with one exception where one doctoral student only had one supervisor after the change. In total, 14 out of 19 participants changed their main supervisors; in some cases, this was followed by yet another change of one of the co-supervisors. In addition, more than half the participants went through more than one change; often two to three changes and in two cases four changes. In a few instances, additional supervisory changes were being considered at the time of the interview. As the inclusion criteria included having had a supervisory change, a certain degree of initial problems was assumed, which was true for 18 out of 19 participants. In one exception, the change was experienced overall as positive prior, during and after the change. In this case, the change was not initiated by the doctoral student as it was due to the supervisor's retirement plans. This felt natural in the research process as the change could be implemented smoothly with existing competence within the supervisory team and happened very late in the doctoral student's research process, and thus, did not affect her/him. All the other participants, however, experienced some problems prior to the change and an improvement in the situation after the change, as least when compared to their previous situation.

The reasons for change highlighted by the doctoral students varied but often originated from a poor supervisory relationship. A dominant supervisory style, lack of communication and pedagogical skills and lack of belief in the students' abilities were examples mentioned by the participants for the supervisory changes. Some students also experienced a lack of structure and clarity concerning what was expected of them. However, in some cases, a change of supervisor also indirectly or directly originated from the supervisor/s. In one case, the doctoral student was forced to change supervisors three times in a row because of supervisors moving away, while in two other cases, the supervisors' moves were thought to be not an issue initially but resulted in the doctoral students choosing to switch supervisors after all. The retirement of the main supervisors also led to supervisory changes for two participants; in one case, the retired supervisor left and in the other, she/he stepped down to become a co-supervisor. Internal swaps within the supervisory team occurred frequently as well, and doctoral students were usually not part of these decisions. Organizational changes at the university level or cultural clashes were also issues for the participants, particularly for those not born in Sweden.

Experiences of changes in supervisory arrangements
The doctoral students often experienced a change in supervisory arrangements as a lengthy process that matured over several months or years. Therefore, the findings section is structured as "doctoral experiences prior to the change," "doctoral experiences during the change" and "doctoral experiences after the change."

Doctoral experiences prior to the change. Doctoral students were hesitant in reaching a decision on whether to change a supervisor or not. They usually handled their thoughts and emotions originating from a supervisory problem on their own before communicating them. The following four main themes could be derived in this section, namely, "thinking twice," "being emotionally drained," "seeking distractions" and "who helps? Or not [. . .]." The main themes are given in Table 1.

Thinking twice. Even though the doctoral students might have been informed about the possibility and their right to change supervisors during their studies, it was implicitly communicated to them that doing so would be wrong. For example, one participant said: "it was during an introduction day or something, when you got to see all the different forms and how everything works and such [. . .] this person said 'here are different forms,

including one form for changing supervisors, but you are not supposed to do that. However, there is such a possibility'" (interview 15). Thus, the students were fostered in an academic culture that imposed on them the view that supervisory change was bad, wrong and a failure. This, in turn, could evoke feelings of shame and stigma, which prevented the students from expressing problems associated with their PhD studies or supervisors. Doctoral students were aware of their right to change supervisors, yet they were mindful of the risks and consequences of a possible change. This made some of the students remain in harmful and destructive supervisory relationships for strategic reasons while others stayed keeping their approaching graduation in mind.

Being seen as a troublemaker by other scholars or the management was another reason for doctoral students "thinking twice" before changing supervisors. Instead, the students felt the need to appear accepting and thankful as they had been given the possibility to carry out their research. They felt that they were expected to behave this way.

"Interviewer: Why did you stay for such a long time? Doctoral student: I do not know. Good question. I just wanted to finish. I did not want to cause trouble. [. . .] I did not want to cause trouble. I did not want to cause trouble. I just said. 'OK, if I try enough to please her, if I just work hard enough, eventually she will realize that I can write; I can do this.' Till in the end, after four years, I realized that she never wanted me to pass" (interview 7).

Being in an inferior position, the doctoral students believed that supervisors were more experienced in academia and trusted their supervisors' assessment of how the supervision process should be formed. One participant said: "as you have never had a supervisor before, you take it for granted that they know what they are doing. So, you just go along and do not ask that many questions" (interview 4). These feelings restrained the students from taking any action. In retrospect, many of them were surprised with themselves and questioned why they had not reacted and been more questioning, demanding or inquisitive before the change. Finally, fear caused by a very dominant supervisory style led to not daring to speak up and becoming passive, thus prolonging the process of decision-making further, which paralyzed the students.

"Now when I think about it and when I've become my normal self, I just get mad at myself, 'Why did you believe his bullshit? It's not like he had that power. Why did you let him over-rule you like that or put you down so much? You should have just like told him: 'Show me'!" (interview 5).

Being emotionally drained. An underlying feeling of irritation due to recurring relational problems was common among the doctoral students, with one exception. Most students experienced high emotional strain prior to taking a decision to change supervisors. One participant said: "I tried to quit. I took it to heart and I felt really bad. And I was probably very close to going into the wall [. . .] or getting into depression or something. It was so bad. I cried every day for weeks" (interview 4). Bitterness, loneliness, depressive symptoms, anger and a sense of loss of self-confidence, drive and motivation were among the feelings expressed by the participants. Crying for long periods of time was repeatedly mentioned by

Doctoral experiences prior to change	Doctoral experiences during the change	Doctoral experiences after the change	
Thinking twice	Keeping a clean conscience	A new beginning	**Table 1.**
Being emotionally drained	Fighting for your rights	Looking for confirmation	Overview of the main
Seeking distractions	Entering the battlefield	Oops! I did it again	themes from the
Who helps? Or not. . .	The execution	Dealing with the aftermath	thematic analysis

several students. This long period of coming to a decision posed the risk of an increased level of mental health problems. It could also affect their private lives thus, spilling over to their family lives, influencing sleeping patterns and they felt it was difficult to distance themselves from the problem. This was also noticed by their spouses.

"I have never felt that way, the way I did then. Not even in the worst phases in my life. He broke me down, where I was like just being numb. I wouldn't [. . .] I didn't [. . .] I didn't know what. I just woke up, and I slept. But what happened in between those [. . .] that time, I had no idea. Like I was just numb. He broke. . . He managed to break me down" (interview 5).

"I can say that in that group I felt very oppressed. I can say I did not want to kill myself, but I felt [. . .] Damn how bad I felt in her relationship. So, it's [. . .] I cried every day, and it was awful. It was [. . .] I felt really bad, and really, really, really downtrodden" (interview 6).

Seeking distractions. When the strain for some doctoral students became very high and they felt they were not moving forward and were just enduring their situation, they tried to distract themselves from the research process and from the poor supervisory relationship to find other domains that they could succeed in, for example, taking courses. One participant turned to teaching: "I tried to improve my teaching skills instead and I started teaching. I started getting, you know, positive feedback from the students. I tried to improve all my teaching techniques" (interview 3). In this way, they felt that they were not just wasting time. However, it could also be brought up against them by the supervisors who might claim they were focusing on the wrong things and were not interested in research.

"It might have affected me more than I thought. Although there was an advantage; during the toughest time I took the courses. I could get really into it and leave the research process totally [. . .] And not give a crap about it. I hoped that it would be solved within ten weeks' time or so. Or something like that" (interview 12).

Who helps? Or not [. . .]. After acknowledging that there was a problem that was not about to disappear, the doctoral students communicated their feelings and thoughts to someone else. In a few cases, the students were approached by either another supervisor or other doctoral students as they appeared sad and down. Being able to air one's feelings opened a gateway for some, as they finally talked to someone and could get support, be empowered and be pushed forward; it was as if they had been waiting for informal approval. For several doctoral students, there was a person who directly or indirectly helped them embark on the endeavor of moving forward with a supervisory change. This could be the study director or a supervisor. Others were left entirely on their own or even discouraged and told that they were not allowed to change supervisors. The management/leadership was usually experienced as a letdown by the doctoral students as they prioritized protecting their own interests, that is, the reputation of the supervisors and the university, rather than protecting the students' rights.

"I told them, 'I want to switch, and I have the right to do this. Enough is enough'. And then we all met. I contacted the labor union and everyone, the head of the department. Everyone was involved [. . .] Everyone was involved. Then I tried to switch. And then there was an e-mail that came, saying that 'You know what? We have decided that you are not allowed to switch. You have to continue'" (interview 5).

"What I really want to say is that as a doctoral student, if you end up in any kind of conflict with your supervisor, it is totally clear that there is no one who will support your perspective. There was vast support for the supervisors and professors within the senior research group. There they supported each other and had each other's back. But there was nothing like [. . .] From a working

environment perspective, there was no support. There was no one who said, 'How are you?' or something. . ." (interview 14).

Doctoral experiences during the change. Often a crucial event resulted in students' reaching a point of no return. The change itself could be experienced as positive despite having a troublesome prehistory, but some experienced the change as traumatic. Four main sub-themes are discussed in this theme, namely, "keeping a clean conscience," "fighting for your rights," "entering the battlefield" and "the execution."

Keeping a clean conscience. The doctoral students wanted to be fair and humane in the process of changing supervisors. Taking a long-term perspective, they did not want to be burdened with a feeling of regret over their behavior in the future. As one of the participants said: "but like if I meet him in 10 years, I do not want him to be able to accuse me of anything [. . .]. Then, I want my back completely free and I want to know that I have done what I could to try to sort it out, to try to save the situation" (interview 12). Many understood that they had to take some part of the responsibility and were eager to keep fairly good relationships with their supervisors after the change as none of them wanted to hurt someone deliberately. Having come to a decision, the students wanted to communicate it in a transparent way, acting in an honest and upfront manner.

> "Because I was told, 'We would like to help you to start a dialogue [with the supervisor that you want to replace]' I said, 'But I do not want it [decision to change] to come from anyone but myself' [. . .] I do not want there to be any consequences in retrospect [. . .] or schisms in the group" (interview 9).

Fighting for your rights. Those doctoral students who felt that they had been treated unfairly by the organization, the study director or supervisor could be motivated by the lack of fair play and fought harder for their right to change supervisors. Feeling reluctant, indecisive and hesitant at the beginning and often even considering quitting rather than taking on the struggle of changing supervisors, could now change into feeling spurred and fight back. This feeling was sparked by others' unfair and offensive behavior toward them. One participant said: "so I am fighting back this time. I have learned my lesson. I cannot keep retreating. So, I am fighting back. [. . .] I will fight back. I will come back. I will come back. Yeah. So, we will see" (interview 7). To give up might be seen by others as admitting being the cause of the problem; therefore, the students tried to hang on. Seeing other doctoral students who in fact had quit due to poor supervisory relationships encouraged them not to go down the same road and give up.

> "I cannot live with myself knowing that, 'OK, you gave up because of that [problems]'. I mean I've been so close to giving up so many times. But every time I thought, 'You know what? I mean who are you?' [. . .] like what the hell? You know. At least I have to fight back. Try something" (interview 5).

Entering the battlefield. In a few cases, when consensus could be reached and interests were aligned (for example, by internal swaps for merit, career possibilities for junior supervisors or by making the project leader the main supervisor) the change was unproblematic and undramatic with no hurt feelings. However, changes due to poor supervisory relationships could often end traumatically and were experienced as a declaration of war by the students. They came to some sort of realization as expressed by one of the participants: "and it was probably like I came to some kind of tipping point, where I felt, 'now that's it. I am not taking any more of this shit [. . .]'" (interview 19). The most traumatic cases involved a final dispute between the supervisor and the student that escalated into an open conflict with open attacks.

"When the other supervisors joined us, I think she realized [. . .] When we had a meeting, which we rarely had, where all of us, the three supervisors and I met. And I think what happened then was that maybe she felt a little threatened. When she verbalized that I was not happy [. . .] informed the others [. . .]. Admitting it to the others, maybe she felt a bit stressed. And felt that she had to put some blame on me too. She attacked me terribly during this meeting. And I felt so stressed that I [. . .] She asked, 'Do you want to replace me? Do you want to replace me?'. I felt that I couldn't say anything else. Yes, so then [. . .] I guess I have to take that road. I felt extremely pressured by her, that she suddenly changed strategy 180 degrees and attacked me like this, so that I just felt that I had to say that I wanted to replace her" (interview 2).

The execution. The official change itself was often experienced as fast and unbureaucratic and was perceived as unimportant. It involved signatures of all involved that is the doctoral student, the supervisor who was removed, the new supervisor (if any) and the study director. Most of the students did not care much about the formal procedures of the change and often this task was handled by the study director or one of the supervisors. The part that mattered most to the students was the practical side of the change, that is, with the new supervisory constellation starting afresh.

"But we changed it informally first. So, we started having [. . .] supervision meetings with the main supervisor and the new supervisor, without the former co-supervisor. We continued with that for another six months. [. . .] No one cared actually! Hahaha! No one cared! Until the former supervisor said [. . .] 'Oh [student's name] you know, I will send you an application that you have to sign'" (interview 16).

"Administratively, it was quite effortless. The difficulty was getting hold of the former main supervisor so he could sign the papers. [. . .] And that took at least another month till we got the signature. For a while we thought, 'We'll go on anyway, he can sign when he feels like it'. But you have to get it done, formally. It was quite [. . .] it took some time to get hold of him" (interview 8).

Doctoral experiences after the change. Although the doctoral students' experiences before the change could in many cases be negative and unpleasant, they mostly talked positively once the change was handled. All the students reported an improvement, in some cases not optimal but still somewhat better. However, many had several supervisory changes. Four main themes were derived in this section, namely, "a new beginning," "looking for confirmation," "oops! I did it again" and "dealing with the aftermath."

A new beginning. After completion of the change, the doctoral students felt relieved, free and energized. As one of the participants said: "I think the strength came after I fired her and I felt that I had renewed energy to do research. Then, I realized I liked to do research. I really, really enjoyed doing research" (interview 7). If the supervisor was replaced by a new one, he or she came into the supervisory team very fast to avoid further delays. They experienced the new supervisor constellation working better than the previous one and the same was true for the relationships between supervisors. The new situation motivated the students; they found a new interest in their projects and were eager to continue. Issues such as poor writing ability or lack of structure or direction that were criticized earlier disappeared instantly. As those problems previously impacted negatively on the students' self-confidence, even this had changed now and they regained their strength to go on.

"I felt so incredibly uplifted. I felt motivated. It felt so enjoyable. It was like, 'Is this how supervision should be? Oh, really!' And you can almost get sad about that. So [. . .] But then the work took off, when the two [new supervisors] took over. And [. . .] It was such an incredible process, so much more fun" (interview 12).

"So, from a short-term perspective, right before, I probably repressed everything, it was tough when the change was obvious. It was certainly difficult. I cannot say anything else. But in the long run, it was great not to have a relationship anymore that did not work. So, in the long run it turned out great. I got [. . .] I got to experience a supervisor whom I could actually discuss things with, even discuss the questions I had. It was fantastic. Yes" (interview 11).

The students felt safe and supported and dared to step forward with their ideas; their productivity increased dramatically as their motivation and energy were renewed after the change.

Several students had the possibility of choosing the new supervisors themselves. They carefully chose the new supervisors depending on the problems that they had faced with the previous ones. Supervisors who abused their power were often replaced by supervisors known to be fair, correct and with pedagogic skills; supervisors lacking expertise in method or the subject area were replaced by those who were experts and accomplished researchers in the field.

Looking for confirmation. The doctoral students were very self-critical and appreciated getting some sort of confirmation of having taken the right decision. They could, however, ponder over how much of the problem they had actually caused themselves. Confirmation was, thus, a very important factor that empowered them in continuing and being reassured that they had taken the right decision. One participant expressed her way of getting confirmation as: "and then, he [replaced supervisor] wrote quite clearly in this e-mail that his goal from the beginning was to have communication with [my supervisor]. So, he hoped that they could work together. In addition, that was confirmation for me that I had taken the right decision" (interview 17). This confirmation could come from those persons who had helped and supported the students like colleagues who knew about the change or even from the supervisor who was removed when acting out of line or making other mistakes in the organization.

"She supervised another male doctoral student, and they got into trouble. And then she took on a third doctoral student, a woman. And there was trouble too and it ended. So [. . .] Maybe, earlier I thought it might have been my fault, that I hadn't acted correctly somehow. But because I got this confirmation [. . .] that it was not just me who was a problem, but other students came forward. . . and I talked to those students [. . .] they had the same problems that I had" (interview 1).

"I felt that some people understood what I was going through and that I definitely was not the problem. And I wanted to hear that. Because I felt [. . .] [. . .] because you buy it [. . .] how much have I contributed to the problem? How much of the problem have I created and caused? Should I have done something differently? So, I was happy to hear comments, that [. . .] Then I was in contact with [name], a former doctoral student [of the same supervisor]. And [. . .] And she understood me very well. That felt good, too. Also, some colleagues, teachers who had courses together with her [supervisor], they knew what she is like. So, I got confirmation that [the change] was something all had been waiting for, or thought would happen. It was not surprising for them" (interview 2).

Oops! I did it again. Considering the lengthy process of the PhD education, around half of the doctoral students (10 out of 19) went through two–four changes in their supervisory arrangements. Several of them were considering new changes even while the interviews were conducted. It was, thus, rather common and certainly not exceptional to have to handle different reasons for the changes involving different supervisors. Students could decide to add new supervisors to the team or internal swaps within the team were agreed on by supervisors. Sometimes other supervisors' superfluity became obvious to the students once a supervisor was removed from the team. This was experienced as additionally problematic

and caused further feelings of stigma among the students as the likelihood now increased of being *really* seen as the problem and the *real* troublemaker. One of the participants expressed her worries as: "I have already switched. I cannot continue like this. I cannot have the label 'the switcher'" (interview 5). However, a change often involved different supervisors and was experienced as unique. Thus, calling it "repetitive" only simplifies the matter, as supervisory changes can occur for multiple reasons.

"How will I be perceived? Everyone deserves a second chance. I will be that super awkward doctoral student who just brushes away her supervisors. So somehow I did not accept it" (interview 12).

"And that's when it became clear to me. Because if you do it once, it is what it is. But if you do it twice in a row, I thought, 'Oh. Now people will understand that I am the problem. It will be clear if I start all over again and change my co-supervisor.' So, I thought about it a lot, but in the end I did it anyway. And it was taken very badly by my other supervisors, I can tell you" (interview 2).

Dealing with the aftermath. Apart from being happy and satisfied after making the change (s) and having a better research process, some doctoral students also experienced negative long-term consequences. Some supervisors who were removed from the supervisory team took it personally and behaved in vengeful ways such as talking badly about the students in the workplace, refusing to register any obtained course credits or trying to interfere in their career plans. Data loss or issues concerning ownership of data or publications of manuscripts that the students had started also needed to be handled in a few cases, which was time-consuming.

"He spread nasty things about me everywhere around our workplace [. . .] He was on a lot of committees and stuff" (interview 4).

"He just wanted to put sticks in the wheels [for me]. Probably because he lived a lot on trying to paint a picture that there was nothing wrong with him, something was always wrong with the doctoral students" (interview 19).

The doctoral students understood that bitter feelings could impact them negatively long after the change and they wanted to avoid this risk and instead move forward. They wanted an outlook that included seeing the bigger picture and being among the next generation of supervisors. A few of the students were supervising or were about to become supervisors and were aware of which approach they would take.

"I feel like I wasted so much time of my life which I could have invested in so many other things. On the other hand, if it taught me something, it is to always be humble. Don't ever ditch someone, or don't ever abuse your power. If you have some type of power or something, don't ever abuse it; never. If you're [. . .] like I believe the one who's strong is the one who can lift others" (interview 5).

Some doctoral students felt that they had come out stronger after changing their supervisors and were able to tackle any kind of problem after the unpleasant experience and had gained mental strength.

"So, I'm just like a spear. I just went through everything. And maybe I taught myself to be resilient. So, I was resilient in this sense" (interview 16).

Discussion
The purpose of this study was to explore how doctoral students experienced a change in supervisory arrangements. It takes the much-overlooked perspective of the doctoral

students. The findings show that changes in supervisory arrangements stretched over several phases and doctoral students took many aspects into account before deciding to change their supervisors. Even though in Sweden doctoral students have the right to change a supervisor (SFS, 1993), the findings of this study suggest that the decision to change a supervisor, the process of change and the time after the change were traumatic and troublesome when the doctoral students experienced supervisory relationships.

Prior to the change

Prior to the supervisory changes, the doctoral students often *thought twice* before bringing up the question of change either for strategic reasons or because they were hesitant, eager to please or passive. Due to the lengthy pre-phase of the decision-making, the students felt *emotionally drained* and exhausted, which led to thoughts of quitting their studies. The doctoral students also tried to *seek distractions* and, in some cases, though *help* was offered, often they felt alone with their problems. The internal struggles and expressed hesitance when considering supervisory changes may be explained by the institutionalized attribution of the lower status of doctoral students in academia (Mendoza, 2007). The students appear to be conditioned to feel being on the lowest levels of the organizational hierarchy and as a consequence, they are fearful of being seen as troublemakers – "stepping on the toes" of their superiors. Moreover, presented with an ideal picture of a doctoral student's journey (such as a friction-free supervision relationship and a smooth path toward dissertation defense), any deviation from this ideal might create an intrapersonal dissonance. This predisposes the students to maintain the status quo in focal relationships, that is, with their supervisors and other powerful actors (Bicchieri and Mercier, 2014). The political agenda of powerful internal actors could be yet another explanation for the internal struggles faced by the students in deciding to go for a supervisory change (Lucey and Rogers, 2007). Reluctant to tip the balance in established power structures in their research groups or departments, doctoral students might forfeit their right to change and instead opt for upholding the power structures that they are a part of as they fear reprimands or reprisals (Manathunga, 2007; Grant, 2008). However, it appears that holding back on a decision to change, doctoral students experienced the tension that was reflected in their decreasing well-being. According to Kiley and Wisker (2009), these unresolved relational tensions in the supervision process and internal struggles experienced by the doctoral students may lead to attrition, non-completion and mental illnesses among students. Internal struggles experienced by the doctoral students lead to their falling into a liminal, suspended state (Meyer and Land, 2006). There, they may experience difficulties in finding their identity as researchers or even finding motivation and self-confidence to continue their education (Kiley and Wisker, 2009); aspects that this study discusses. The liminal state observed in this study is highlighted by education research that shows that learners entering such stages during the learning process usually see this stage as long-lasting, confusing, irreversible and alien (Perkins, 1999; Kiley and Wisker, 2009). Thus, the findings provide a better understanding of the internal struggles and lack of well-being doctoral students experience during the early stages of supervisory changes. Further, the study's findings suggest that reliance on a trustworthy network of colleagues and fellow doctoral students may be one way of overcoming these internal struggles for doctoral students and getting through this stage. Opening up to one's inner circle helps students resolve their struggles and make sense of the situation. Those students who isolate themselves or withhold their negative experiences of supervision are faced with the risks of losing faith, motivation and self-confidence and developing mental health problems.

During the change
Coming to the actual change, the doctoral students wanted to *keep a clean conscience* initially, however, when met with resistance and unfair treatment, they felt forced to *fight for their rights* and burocratic were willing to *enter the battlefield*, almost like a war declaration. The official side of the change, t*he execution*, was merely perceived as unimportant paperwork, while the students focused on continuing their studies with the new supervisory constellation.

While the previous phase mostly involved doctoral students' internal struggles, this phase included open fights and public discussions, which was equally exhausting and emotionally draining for doctoral students. The difficulties and frustration experienced by the doctoral students who participated in this study have been described in similar terms by Carter (2016), who explored supervisors' experiences of challenging supervision. Like doctoral students, these supervisors too reported feelings of loss of academic identity, lack of confidence and exhaustion when struggling with supervision. At this stage, doctoral students come to terms with their decision to change and make a conscious choice to stay in academia no matter the difficulties associated with changing a supervisor. This process of "overcoming" illustrated by these findings is similar to the findings of other studies describing how learners cross an invisible threshold in their development, which stimulates further learning and also changes one's perceptions of learning capacity (Meyer and Land, 2006; Carter, 2016). At this stage, doctoral students included in this study overcame a threshold (Kiley and Wisker, 2010; Meyer and Land, 2006) by externalizing their previously internalized struggles by being more vocal about their experiences and bringing them into the open (Bryan and Guccione, 2018). In the process of this externalization, they gained a new way of understanding, interpreting and viewing the situation (Kiley and Wisker, 2010; Meyer and Land, 2006), which potentially helped them to progress further in their doctoral studies. Thus, these findings provide a better understanding of the "threshold overcoming" process and highlight how externalization of internal struggles occurs. Further, the study's findings suggest that through externalization of their previously internalized struggles, doctoral students may gain a better understanding of academia by experiencing how and which different forces worked for and against them in the process of change. Moreover, the findings indicate that going through this difficult period, doctoral students might come to realize their own strengths and weaknesses, which could enable them in their learning. Finally, it is in this stage that the role of the study directors of doctoral programs becomes acutely important as they could be expected to deal with the situation and manage different stakeholders in the process of supervisory change. They appear to be one of the most important shapers of doctoral students' experiences at this stage and their actions could have long lasting consequences for doctoral students' further journeys in academia.

After the change
After the supervisory changes, doctoral students embarked on *a new beginning*, which was perceived to be re-energizing and which contributed to a feeling of entering a productive research phase. Still, shaken by the event, *confirmation* from others helped them move forward and regain self-confidence. Capitalizing on the gained experience of changing supervisors who did not fit their needs, some of the doctoral students proceeded with further changes in supervisory arrangements with the goal of composing a team that they felt comfortable with. With the aim of arranging a well-functioning supervisory team, doctoral students were weary of how they may be perceived by others for changing their supervisors yet *again*. Even though some doctoral students had to *deal with the aftermath* of vengeful supervisors and were negatively impacted long after, they were eager to move forward and had a feeling of accomplishment.

The findings of this study show that once the supervisory changes were complete, doctoral students regained strength, energy and resilience and were able to move forward. These findings echo Wisker and Robinson's (2013) findings that suggest that doctoral students who had "survived" being left by their supervisors and who had completed their studies, that is, *after* the supervisory changes, felt resilient with regard to "becoming unstuck," being able to tackle problems, coping with new demands and regaining ownership of their projects. Further, this analysis resonates with Bryan and Guccione's (2018) findings that doctoral students feel proud of their accomplishments and became resilient *despite* negative experiences. This study describes doctoral students' experiences as being reminiscent of war, suffering, being in a battlefield and survival. This description is similar to Bryan and Guccione's (2018) study in which former doctoral students described negative experiences during their doctoral studies using the same terms.

Developing resilience and gaining a feeling of accomplishment was reinforced by positive experiences that most of the students had with their new supervisors. Regaining confidence in their scientific capacity was especially obvious when doctoral students could choose their new supervisors (Lovitts, 2001; Schlosser *et al.*, 2003). Moreover, students' ability to see a successful end to their doctoral journeys, can be explained by their feeling of mastery over their own destiny and control that was partly reflected in the concept of "becoming unstuck" described by Kiley and Wisker (2009). In the process of becoming unstuck, learners were enabled to develop a new way of approaching their own learning and understanding of the roles that different stakeholders play in this process (McKenna, 2017).

Thus, these findings provide an insight into the aftermath of the change and reveal the processes through which doctoral students gain resilience and renewed energy. Further, the study's findings suggest that by moving into this phase, doctoral students may gain a feeling of independence and control. This suggests that going through the other stages, doctoral students might look forward to a brighter future of their academic career. They might also expect to become a more resilient person, ready to deal with any further challenges on their further academic journey.

The findings of this study make a number of contributions to the extant literature on doctoral students' experiences during their studies (Devos *et al.*, 2017; Schmidt and Umans, 2014). First, by highlighting doctoral students' experiences during a crucial event – supervisory change – in their doctoral education, this study contributes to this nascent stream of research (Wisker and Robinson, 2013) and paves the way for further investigation of these experiences. Second, by highlighting how doctoral students experience supervisory changes in different stages, this study provides an in-depth understanding of the process of supervisory change from the doctoral students' perspective. Third, the study contributes to the literature by exploring the supervisory relationship in PhD education (Lee, 2020; Gatfield, 2005) and highlights how the dynamics of that relationship evolve and are reflected in doctoral students' experiences and decisions related to supervisory changes. Fourth, by highlighting doctoral students' experiences of their well-being throughout the process of a supervisory change, this study contributes to the extant literature on doctoral students' experiences of their well-being (Schmidt and Hansson, 2018; Evans *et al.*, 2018). Finally, this study contributes to the literature describing doctoral students' experiences in an academic context (Mendoza, 2007; Kulikowski *et al.*, 2019) and their perceptions of this context being both enabling and disabling in the process of supervisory change.

Practical implications and future research directions
This study highlights the importance of process management not only from within the student-supervisor constellation but also among powerful external actors. The findings

suggest that academic institutions should establish clear guidelines that are not only documented but are also implemented in practice, and that de-dramatization of the changes in supervisory arrangements should be an important institutional practice.

The results of this study suggest that more awareness about doctoral students' experiences of the relationships with their supervisors is needed at all involved levels in doctoral programs. Study directors already have regular meetings with all doctoral students as stipulated by the study plan. However, a more open-minded environment will be helpful for doctoral students to be able to come forward with problematic supervisory relationships. In several cases, the study director was not seen as helpful and students felt alone in the process of supervisory change. Thus, it is crucial to recruit individuals who are well-fitted for the position as study directors; they should be willing to hold uncomfortable discussions and their authority should not only rest on their position in the line organization but also on their proven record of successful supervision at the doctoral level. For supervisors, it would be desirable to initiate and continue a transparent agenda and planning process that involves doctoral students as much as possible. More acceptance for the fact that doctoral students have the right to choose supervisors will help doctoral students avoid feelings of wrongdoing. As for doctoral students, it is suggested that they have a tight network with other doctoral students and remain observant of their emotional state as the study shows that doctoral students often choose to share their experiences with other doctoral students. While this study has been conducted in a Swedish context, its findings are relevant for academia in general because institutions of higher education are structured and organized similarly.

This study has highlighted the doctoral students' perspectives. Future studies should explore supervisors' and study directors' perspectives in the context of supervisory changes and are seen as equally important. Moreover, future research should further explore other relational aspects of changes in supervisory arrangements. For example, inter-relationships focusing on the supervisory team, relationships between doctoral students and institutional management or supervisors' status and standing in the institutions that they are employed in could be further explored.

Limitations
This study is not without its limitations. First, the snowball sampling method is prone to bias (Atkinson and Flint, 2004). This means that doctoral students often chose those similar to them which poses the risk of a homogenous sample. In this case, 15 of the participants were women. Yet, of those seven students who declined to participate in the study/did not answer, five were men, which could indicate that it is more difficult to involve men in such a discussion. In fact, two of those men declined to be a part of the study as they had difficulties talking about their unpleasant experiences.

Second, even though the doctoral students varied in age, the average age of the sample was around 10 years older compared to the average age of all doctoral students in Sweden impacting on the representativeness of the sample. It further may raise questions whether younger doctoral students could experience supervisory change differently compared to more mature students.

Third and finally, this study only included persons who were currently enrolled or had finalized their studies, discarding the perspective of students who had quit PhD programs. It is believed that valuable information could be gained by including former doctoral students who decided to quit their studies, perhaps, because they found the change too hard to go through with.

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