Review of the handbook literature on doctoral supervision

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March 2014

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1. Purpose and objective

This literature review has two primary objectives: firstly, the aim is to bring together the major themes and findings of the expanding field of research into doctoral supervision; secondly, to provide guidelines for, especially, new supervisors who may benefit from the research into more experienced supervision practice. The aim of the review is not to repeat an already robust range of publications but to condense the wide range of studies and select the key issues treated across different types of studies and international educational contexts.

The research literature into doctoral supervision is far ranging: including studies of psychological, sociological, philosophical and pedagogical character, which all are relevant and beneficial for a deeper understanding of what it means to be a doctoral supervisor and doctoral student. However, this review focuses first and foremost on doctoral supervision as a teaching and learning phenomenon, dealing primarily with pedagogical and didactical issues of the supervisory context. Furthermore, the review does not treat doctoral education in a broad sense, which has become a field of research in itself (Lee & Danby 2012; Boud & Lee 2009; McAlpine & Åkerlind 2010); rather, the focus is on doctoral supervision and guidelines relevant for doctoral supervisors. While the target audience of this review may be at all institutional levels, the review primarily targets doctoral supervisors and directors of doctoral research programs.

2. Method and approach

As reviews of the literature into doctoral supervision have become rather commonplace, this review makes use of a new approach. During the 1990s, international literature on doctoral supervision and, more broadly, supervision at the university, began to grow rapidly (Bengtsen 2012); following on from this growth up to the present time numerous qualitative and quantitative studies have emerged; furthermore, a solid foundation has been established in handbook literature. This literature contains key findings in singular research studies, with these meta-syntheses incorporated into guidelines for supervisors to be used in

their teaching practices. The handbook literature can be understood in Anne Lee's sense as "companion" guides and "a series of guides to effective supervision" (Lee 2012: 30). The meaning of the term 'handbook' is drawn from Gina Wisker's use of the term "self-help books" (Wisker 2012: 58) with which she refers to exactly this corpus of literature, including her own work. These terms are not meant derogatively but rather as an acknowledgement of how far the research into doctoral supervision has come from its early emergence as a field of research in the 1980s.

This corpus of literature is chosen because such books are themselves reviews of recent and major singular studies on the different aspects of the supervisory context. Furthermore, a study of the handbook literature gives access to a new dimension of the literature on doctoral supervision. This dimension foregrounds the didactical element of doctoral supervision, explicating the teaching and learning potentials inherent in the phenomenon. This does not mean that this study ignores major studies in research into doctoral supervision such as those on social and power relations in the supervisory dyad (e.g. Armitage 2008, Grant 2008), gender and cultural issues connected to doctoral supervision (e.g. Leonard 2001; Grant 2003; Bartlett & Mercer 2001), and institutional and organizational settings for doctoral education (e.g. McAlpine & Norton 2006; McAlpine & Åkerlind 2010; Delamont, Atkinson & Parry 2000; Rowley & Sherman 2004). However, this review asserts that a study of the handbook literature is mandatory in order to gain a deeper understanding of the underlying pedagogical and didactical logic operating within the handbook literature and in each particular handbook. An interesting feature of the handbook literature is that it consolidates the main issues of doctoral supervision, which can be said to be consensual across the various singular studies. Furthermore, as outlined below, each handbook manifests its own particular pedagogical and didactical view and set of values on doctoral supervision, generating a whole new perspective on the relation between generic and contextual aspects of understandings of the aims, challenges and potentials of doctoral supervision. The handbooks, contrary to the qualitative and quantitative studies published in paper form, express the core of the pedagogical and didactical

knowledge, as they are first and foremost written from a teacher perspective (the perspective of the practitioner) and not (merely, but also) the researcher.

As supervisors are the primary target audience of this study , it does not include the literature of handbooks for doctoral students on how to cope with and get through the often demanding and toilsome process of being a doctoral student (e.g. Petre & Rugg 2011; Wisker 2008; From & Kristensen 2005; Cottrell 2014; Philips & Pugh 2005).

2.0 Volumes chosen for closer scrutiny

Out of the corpus of handbook literature, the following volumes have been chosen for their status as often cited and influential books in the genre, as well as their strong grounding in the research literature, while themselves functioning as literature reviews – in contrast to other volumes on doctoral supervision based almost exclusively on narratives and essays by the practitioners themselves (e.g. Eley & Jennings 2005; Epstein, Boden & Kenway 2005). In the analysis below, an overview is presented concerning the way in which the chosen works share important findings and understandings of key issues in doctoral supervision practice, and how each volume at the same time expresses singular and unique core themes and horizons regarding doctoral supervisory pedagogy and didactics. The works chosen for closer study are: Delamont, Atkinson & Parry (2004); Dysthe & Samara (2006); Handal & Lauvås (2011); Eley & Murray (2009); Lee (2012); Peelo (2011); Taylor & Beasley (2010); and Wisker (2012). As all of these works share the following generic aspects of doctoral supervision, only citations from passages of particular clarity are employed. This does not mean, however, that the other works do not contain passages of similar relevance.

3. Generic themes across the scope of literature

The following sections are based on a close reading of the key works mentioned above; furthermore, the review provides a synthesis of generic aspects of doctoral supervision on which there is consensus across the literature. The wording in the

headlines chosen for the different sections resonates in the form of 'codes' (often used phrases) throughout the literature. The sections clarify the most crucial and challenging issues for any doctoral supervisor to be mindful of.

3.0 The institutional context

As the conditions for doctoral education change according to a given institutional and educational context, doctoral supervision is highly entangled with the institutional context at the particular university (Peelo 2011: 33-34; Taylor & Beasley 2010: 7ff.; Lee 2012: 31ff.). As the university today is an increasingly public domain, Taylor and Beasley underline that "Research training agendas are being affected by the changes in university-industry-government relationships, adding to the diversity of outcomes that policy makers expect of the doctorate" (Taylor & Beasley 2010: 18). Doctoral education is today not only a matter for the universities to administrate themselves; on the contrary, it is irrevocably "out of the closet and firmly in the public domain, with attendant pressures for responsibility and accountability" (ibid.). Previously, many European universities used what can be termed the "secret garden" model for supervision (Wisker 2012: 57), keeping the "relationship between supervisor and student a private one, somewhat removed from the larger collegial community" (ibid.). The supervisory dyad had an autonomous and independent character and was seldom evaluated in accordance to the institutional context. With the focus on accountability, this framework for supervision has changed, as Wisker points out: "a new transparency, rigor, and changes in funding have all made a difference to our articulation of the supervision process, and our strategies for evaluating and enhancing it" (ibid.). In relation to supervision, this is also done with the purpose of securing the students and supervisors, enabling a fair and manageable supervision process with regard to the amount of time and resources the student has a right to expect from the supervisor, and vice versa.

Seen from this perspective, being a supervisor is, as Wisker notes, "a complex, professional, personal and political role" (Wisker 2012: 59); the supervisor has to balance their own work pressure, specific departmental   administrative and

economical challenges, while also assisting the doctoral student to navigate in the same, but from a different level of expertise, institutional layout. Peelo points out that this is not only the supervisor's responsibility, but also a joint endeavor between supervisors and students (Peelo 2011: 48). However, this institutional complexity can become, for both supervisor and student, an "intellectually complex experience and one that [...] provides both supervisors and students with plenty of opportunities for miscommunication and misunderstanding" (ibid.). Thus, the role of the supervisor is fraught with potentially conflicting agendas and aims on the behalf of the doctoral student's road to completion, as the supervisor must balance political, institutional, disciplinary and personal demands.

To counter frustration in the long run, Eley and Murray argue for the benefit of a supervisor facilitated phase of induction in which the student becomes acquainted with the institutional context, codes of conduct, and research and workplace based ethics (Eley & Murray 2009: 88ff). Induction in this context does not simply mean "introducing the student to the institutional and disciplinary conventions and courses; induction is also a time when supervisors assess students' potential and calculate what type of supervision role they will be required to play" (Eley & Murray 2009: 90). As Delamont, Atkinson and Parry note, such alignment and negotiation of roles between supervisors and students can in itself be called a form of "management" (Delamont, Atkinson & Parry 2004: 14). How to manage the supervisee may change several times during the process of doctoral supervision with the particular student, and different supervisors choose to approach these issues differently. The literature agrees on the point that good long term relationships between supervisors and students, with regard to adapting to changing institutional settings and agendas, depend on the degree of thoroughness and amount of energy put into the initial phase of induction. The claim is that institutional changes and demands which happen during the doctoral students project period will be less likely to cause major disturbance in the supervisor-student relation if the initial institutional phase of induction is done in a wholesome manner.

3.1 Enculturation

As a contrast to the institutional context described above, enculturation is not so much about the formal institutional, political, economical and administrative framework with regard to doctoral supervision matters. Rather, enculturation is bound more strongly to the specific discipline and disciplinary context and its, often, tacit norms, habits and values for good conduct, both in research matters and socially. Enculturation is about good research craftsmanship; work ethics; customs for cooperation and collaboration; and defining good disciplinary etiquette. The latter is of particular importance, as enculturation often contrasts with formal codes of conduct due to its more informal nature, which is harder to pin down as conscious strategies and intentionally planned frameworks for the progress of doctoral students. Lee defines enculturation as "the process of socialization or acculturalisation into the discipline, the working milieu (e.g. the academic department and the university) and the national culture. A person is 'enculturated' when they [...] have learned the traditional content of a culture and assimilated its practices and values. " (Lee 2012: 48). Lee underlines that empirical studies show that academics identify themselves by their discipline first and by their department or university second (ibid.). As pointed out by Lee (2012: 51), Wisker (2012: 59) and Peelo (2011: 45), this understanding draws especially on Wenger's work on communities of practice, in which supervisors are seen as doctoral students' most important role models, whose ways of working, thinking and even writing are to some degree adapted by the doctoral students they supervise. However, as Delamont, Atkinson and Parry argue (2004: 182), this is a two way street: just as much as doctoral students look to their supervisors for ways of conduct, supervisors look to their doctoral students for signs of a good future researcher in the specific discipline they represent.

It is acknowledged across the literature that enculturation is a powerful dimension of influence in the process of the individual doctoral student's path to becoming an academic. However, as enculturation is mostly a tacit phenomenon operating in the hinterland of formal doctoral education, its potential is somewhat fraught with challenges and potential conflict. Cultural habits and values tacitly

grounded within the disciplines can be difficult to catch on to, especially for students coming from other disciplines or national and cultural contexts. To counter these issues, Lee (2012: 58) suggests ten ways to facilitate student socialization in the discipline. Lee points to many similar situations throughout the disciplines used to encourage enculturation such as "doctoral students giving seminars or papers to each other and to members of the department, inviting and organizing external speakers to give seminars and attending conferences […]" (Lee 2012: 53); other examples include writing independent journal articles or co-writing them with veteran academics in the field. Furthermore, Dysthe and Samara (2006) focus explicitly on the value and resources of using teams in relation to doctoral supervision, either peer groups or supervisor facilitated groups. Dysthe and Samara claim that an important strategy for success in enculturation is to strive for formalization, thereby enabling the disciplinary community with a new, formal and explicated role in supervision practice (Dysthe & Samara 2006: 11). In line with Dysthe and Samara, Handal and Lauvås (2011) point to the changed conditions for supervision strategies and pedagogies when applying groups as teaching format in contexts of doctoral supervision. Supervising in teams or groups is different from the more traditional one-to-one supervision format many supervisors and students, especially in the humanities, feel comfortable with and are able to navigate in, in a secure and professional manner (Handal & Lauvås 2011: 222). With that in mind, the supervisor should be aware of the changed pedagogical conditions for supervision across the different formats applied.

3.2 Academic craftsmanship and supporting the research project

The doctoral student population today has become more heterogeneous, with students from mixed institutional and methodological backgrounds. This is met with growing research into what ways supervisors' best advise their doctoral students in how to acquire the necessary writing skills to fit their research project into the genre of academia. Lee describes this as "functional supervision", the meaning of which includes the supervisor's "responsibility for identifying a series of milestones that keep the project on track […]. The functional supervisor and the student are

both clear about the assessment criteria that are going to be applied for examining and the requirements for ethical practices are made explicit" (Lee 2012: 30). These guidelines deal primarily with generic skills across the disciplines, which of course vary within the specific disciplinary context but which can be considered to be general academic demands of neutrality, objectivity, transparency, and coherence of the PhD thesis as an examined product to be handed in and assessed. This is to ensure that the thesis is as robust as possible when evaluated and assessed by academics from potentially different disciplines.

This form of functional supervision includes a product and a process dimension (e.g. Handal & Lauvås 2011: 58-59). The product dimension covers advice and strategies for writing up the thesis, such as that presented in Wisker (2012: 415ff.), and Delamont, Atkinson and Parry (2004: 117ff.); in these examples, guidelines are presented for how supervisors may help their students to pose the right research questions, structuring text corpus and dividing the thesis into different parts and chapters, and more generally to manage a larger research project. The product dimension also covers how to prepare for the viva (PhD defense), which questions to expect and how to engage in an open and critical dialogue with the opponents (Lee 2012: 41; Wisker 2012: 471ff.; Eley & Murray 2009: 118ff.). Issues of potential conflict within the review panel evaluating the PhD-thesis are discussed in Peelo (2011: 37ff.), where it is argued that subtle and often tacit rules of conduct and professionalism also influence this part of the process: for example, what the supervisor may have in mind when either engaging in dialogue with the panel or suggesting which individuals the thesis review panel will include. Finally, the product dimension covers eventual complaints and appeal procedures, which the supervisor might also be aware of in the latter part of the process (Eley & Murray 2009: 136ff.).

The process dimension covers challenges of supporting and motivating the student towards completion (Wisker 2012: 413ff.), what Peelo refers to as facilitating students in "slaying the dragon" (2011: 51). As this wording suggests, the literature focuses on the often challenging and overwhelming task for doctoral students to manage the progress of their research and translate their empirical

studies into chapters in the PhD thesis. Dysthe and Samara (2006) and Taylor and Beasley (2010) focus on how supporting doctoral students in the writing process also helps the students to manage their own research project. Aligned with this perspective, Eley and Murray give a thorough treatment of the key "feedback mechanisms", the "purpose of feedback", and different "feedback models" (Eley and Murray 2009: 100ff.), which may be applied by supervisors. Wisker points out that to ensure completion it is crucial to establish good research processes and practices early in the process, and to encourage good writing habits and skills for the doctoral student (Wisker 2012: 115ff.). Based on the earlier work by Wisker and Delamont et al., Taylor and Beasley pinpoint structural levels of the PhD thesis that the supervisor should ensure the doctoral student bears in mind. (Taylor & Beasley 2010: 83ff.), demonstrating that product and process dimensions are continually intertwined in the research project. The literature focuses unanimously on the importance and responsibility of the supervisor to engage closely in the writing process early on, and to follow the student's working and writing processes during the entire process – not to hold the student's hand or do the work for them, but with the aim of helping them manage a project, the format and nature of which, on many levels, is different and new to them, and which requires the right tools and skills in order, in the end, to conquer and make their own.

3.3 Autonomy and emancipation

As an element different from the development of academic craftsmanship and critical thinking, the literature agrees on the importance of supervisors supporting and facilitating doctoral students' development of what is referred to as "emancipation", "rational autonomy", "personal development" (Lee 2012: 94-95), "autonomy", and "growth" (Wisker 2012: 108, 191). Enabling emancipation on the students' behalf is described by Lee: "students find their own direction and values and [...] decide to apply them to their research" (Lee 2012: 94). Furthermore, Lee underlines that emancipation has a very different objective to enculturation. The academic "who is working within an emancipatory framework will not be seeking to keep their students within the discipline, whereas this will be the prime objective

for the academic who is working within the enculturation framework" (ibid.). Wisker links autonomy to the level of originality of research expected by a doctoral student (Wisker 2012: 189), and, in line with Lee, links autonomy not to personal growth as such, but to the autonomy of the student's research (ibid.).

According to Wisker, this poses a challenge for the supervisor to balance and to navigate in the tension "between hands-on support and the hands-off encouragement of autonomy, and autonomy which will enable the graduate or postdoc to conduct their own research projects." (Wisker 2012: 189-190). Delamont, Atkinson and Parry (2004: 34) state that this dilemma has been visible in empirical studies on doctoral supervision as far back as the early 1990s, and that it poses one of the most crucial challenges for doctoral supervisors. Delamont et al. stress that most supervisors experience "a pull between their desire to exercise tight control and to allow the student the freedom that comes from non-interventionist supervision." (ibid.). This point strikes to the heart of a key issue regarding the pedagogical nerve of doctoral supervision. Lee points out that this can easily lead to the "dark side" (Lee 2012: 106) of supervision in which the untrained supervisor does not facilitate the autonomous growth of the doctoral student's research project, but instead makes the student work in line with the supervisor's own agendas of self-promotion. Also, it can be difficult to define exactly what autonomous research is, and what personal-professional autonomy looks like. As Wisker underlines, this can vary a great deal between educational levels, culturally, contextually (disciplinary), and individually (Wisker 2012: 188). Therefore, the supervisor should bear in mind that the doctoral student's work is matched by the level of the degree undertaken, where "greater autonomy and originality are required over a greater length of time for a longer, more significant project, making a contribution to knowledge, and justifying the award of a doctorate." (Wisker 2012: 189).

In contrast to the challenges supervisors meet when supervising students' writing skills and academic craftsmanship as described above, the literature points to a shift in mode when wishing to promote and enable emancipation and autonomy. To meet this challenge, the supervisor must shift from being a teacher to

being a facilitator. Drawing on Carl Rogers' theory on facilitation, which is highly influential in the understanding of supervisory dialogues, especially in Scandinavia, Lee states that "facilitative interventions are those where the practitioner is seeking to enable the student to become more autonomous" (Lee 2012: 102). Drawing also on the work by Heron, Lee identifies a hierarchy of facilitator states that the supervisor can navigate out from when working with facilitation (ibid.). Reviewing these states, it becomes clear that as the supervisor becomes more experienced and skilled, a higher degree of empathy is successfully manifested towards the student, together with an ability to recognize what may be best for the student. This differs from coaching where the student, or client, autonomous in another way, makes the decisions. Facilitation is still a form of supervision as the supervisor endeavors to assist the student develop research according to the student's own visions and goals, but still aligned with the requirements and criteria for good academic research at PhD level.

3.4 The supervisor and student relation

The quality of the relationship between supervisor and student is widely recognized as being of crucial importance to doctoral education. As Lee points out, "poor relationships have been linked to poor completion rates" (Lee 2012: 110), so the aim for the supervisor and student should be to establish a "working alliance, a productive alliance around a shared task" (ibid.). Building on Wisker's earlier work, Lee furthermore underlines that "emotional intelligence and flexibility play a large part in working with students through to successful completion", defining emotional intelligence as the supervisor's ability to perceive and express emotions, to understand emotions, to use emotions to facilitate thought, and to manage emotion in self and other (Lee 2012: 111). Similar issues and research into such matters are addressed by Taylor and Beasley (2010: 68-69), and Wisker explains the importance of the relationship by describing that "for all students and particularly those working at a distance, the supervisor is the link with the university, and an essential guide, teacher, colleague and mentor in the research process" (Wisker 2012: 81). Also, Wisker points out that it is a "political relationship, since you as

supervisor have both institutional knowledge and access which can support and inform your work with your student" (ibid.). Arguably, the relationship is particularly important when working with students with different social backgrounds, and when working with international students, where the social and cultural norms might clash with your own expectations of a good professional and personal relation (Delamont, Atkinson & Parry 2004: 121ff. and 141ff.; Wisker 2012: 261ff. and 279ff.).

Being a key factor for the good supervision process, the issue of the relationship is also fraught with potential aspects of conflict, not only with regard to the interpersonal dimension, but also to the quality of the research the student is able to produce. Delamont et al. argues that "precisely because the relationship between a research student and their principal supervisor is so important, disruptions to that relationship are very damaging to the progress, and the quality of the thesis." (Delamont, Atkinson & Parry 2004: 83). Peelo points to the often overlooked connection between personal and professional levels of the supervisor role, and states that the "supervision style" of the particular supervisor has great impact on the foundation for good relationship building (Peelo 2011: 28). Across the literature much focus is put on the power relation between supervisor and student, and building on work in particular by Barbara Grant, Lee warns about "toxic mentoring"; the destructive side of the power relation in which the supervisor may take advantage of his/her superior position to attain commercial, sexual or intellectual gain. (Lee 2012: 129).

Also building on Grant's work, Handal and Lauvås reminds us that a supervisor-student relationship consists of "real persons", and, as in all relationships, aspects of gender, social, political and economical status may influence the relation for good or for worse (Handal & Lauvås 2011: 79; see also Lee 2012: 113). Handal and Lauvås, together with Lee, warn of a "too personal" relation between supervisor and student in which the supervisor (or student) may risk being "sucked into the black hole of this thing" (the relation), where a student may have "all kinds of health problems" and "family problems" that may cause the student's work schedule to slide (Handal & Lauvås 2011: 83). Therefore, as Lee counsels, to maintain a professional balance

personal relationships between supervisor and student must never "become so strong that they are more important than the task." (Lee 2012: 127).

Another challenge regarding the supervisor-student relation is about how supervisors, during the long process, try keeping the student's motivation in balance and maintain momentum in the project (Peelo 2011: 29; Wisker 387ff.). Due to the relatively personal character of the relationship, which may last for years, the boundaries between personal and professional spheres of the relation may start to become blurred. When facing periods of doubt or strain, doctoral students often turn to their supervisors for help, which means that supervisors may be confronted with students' "sloughs of depression about debt, poverty, isolation, thesis problems, and poor employment prospects." (Delamont, Atkinson & Parry 2004: 81; see also Peelo 2011: 27). Some of these issues the supervisor may be able to alleviate, just as some problems with the supervisor or the supervision the supervisor may not recognize or be able to solve (ibid.).

Too ensure that such issues do not overshadow and erode the trust and mutual recognition in the supervisor-student relationship, Peelo suggests that to formalize these elements in advance – and thus make them explicit and open – may ease the dreariness and toil later on in the process. This could be done by "student-supervisor contracts" which can be useful "when the relationship run into motivational trouble." (Peelo 2011: 29). By addressing a contract formed earlier on in the process, and employing it as a neutral ground for further communication, may help supervisors and students to keep their heads above water and to reestablish a trust that may be threatened or lost. However, as Peelo informs us, "successful negotiation of a period of loss of trust will depend on excellent social and communication skills on both sides, and may well be typified by miscommunication, misunderstanding and frustration on the part of both the supervisor and student" (ibid.). Lee points out that the issue of trust and a belief in each other's integrity is central to a healthy relationship between student and supervisor (Lee 2012: 117), and, as it may be difficult to fix broken trust, Wisker suggests that supervisors are mindful of the core expectations on the students' behalf which include an open and friendly supervisor, who is able to balance personal and research relevant sides of

the relation in a manner which is at the same time empathic and understanding, responsible and professional (see Wisker's list of core issues in Wisker 2012: 85-87).

3.5 The supervisory dialogue

The supervisory dialogue can be said to be included in the above aspect of relationship building as the key aspects, often linked to the underlying pedagogical foundation, of good supervisory dialogue are openness and trust. However, it also serves a purpose and defines a dimension of doctoral supervision not included in any of the above aspects. The supervisory dialogue is most often (in the humanities at least) the primary teaching format available and applied during the doctorate process. Wisker states that supervisory dialogues are "at the heart of the research student's learning" (Wisker 2012: 187). Furthermore, Wisker points out that supervisory dialogues, "whether face-to-face or through electronic means, are the main way in which we work with our students to encourage, direct, support and empower them to get on with and complete their research and writing" (ibid.). The supervisory dialogue is not a classical form of didactics like the tutorial model, but can instead be described, as by Wisker, as a learning conversation and a form of collaborative problem-solving (Wisker 2012: 190). Handal and Lauvås underline that most of what we understand by doctoral supervision takes place in the form of conversations between supervisors and students, which can vary in degree from formal and planned meetings with a set agenda, to more informal meetings, and even spontaneous talks in the hallway or by the coffee machine (Handal & Lauvås 2011: 101).

Having the dialogue, or conversation, as the primary teaching and learning format, poses different forms of challenges for the doctoral supervisor. Given the openness of the dialogue, and the room for spontaneity, non-linear structure and digressions, it can be a challenge to balance the wish for openness and freedom for the student to step forth and to find a voice of their own, and the desire to structure the dialogue according to a preset agenda including e.g. text feedback and other forms of commentaries. According to Handal and Lauvås, one of the challenges of

the supervisory dialogue is that there is no "recipe" or best way to structure the dialogue as such, being highly dependent on the particular student, supervisor and point in the research process (Handal & Lauvås 2011: 101). Wisker accentuates that the supervisory dialogue is often understood in terms of "play and improvisation" (Wisker 2012: 192), which is mirrored in Peelo's description of supervision as "academic playfulness" (Peelo 2011: 20), viewing the potential of the supervisory dialogue as an arena in which students can take risks in their "exploration of ideas and possible avenues of research" (ibid.). No other form of teaching is as fluid and flexible as the supervisory dialogue, which demands a high degree of communicative skill and an ability to 'play' with the disciplinary concepts or frameworks at work in the student's research project.

Wisker foregrounds the supervisory dialogue as a special kind of dialogue – not being the only learning dialogues doctoral students have, as they are also in dialogue with their peers locally and internationally, together with "those who support their language and editing, and importantly, with the experts in the field" (Wisker 2012: 187). The supervisory dialogue is seen by Wisker as a "creative, challenging and empowering dialogue […], which works rather like a choreographed dance – matching learning behaviours and practices, research project, and learner differences to enable the best outcome" (ibid.). In the "dance", different dialogues are built at different stages in the student's work, enabling the supervisor to get "inside how their question, conceptual framework and methods accumulate" (Wisker 2012: 201); this, in turn, further enables supervisors to work "*with* them (the students) to plan, reflect, evaluate, achieve and write up their research" (ibid.). As Wisker describes, the real challenge for supervisors is taking over (too much), because students then might not own or understand their own research, and if the supervisor withdraws excessively, students might feel confused, unclear and not directed (ibid.).

To manage the special openness of the supervisory dialogue as teaching format, Dysthe and Samara suggest different strategies for the supervision approach, ranging from a high degree of control (the teaching model) to a low degree of control (the learner model) (Dysthe & Samara 2006: 233ff.; for a similar point see

also Handal & Lauvås 2011: 104). Wisker suggests that supervisors, in their dialogical style, try to match the learning style of the particular student (Wisker 2012: 264-265). Furthermore, and aligned with the guidelines provided by Dysthe & Samara, Wisker highlights a typology of dialogical actions that the supervisor might prepare as relevant for different stages of the dialogue: e.g. "didactic", "prescriptive", "informative", "confronting and challenging", "tension-relieving", "encouraging and facilitating", "eliciting", "supporting", summarizing", "clarifying", and "collegial exchange" (Wisker 2012: 196-198). Finally, in line with Dysthe and Samara, and Handal and Lauvås, Wisker suggests that the supervisor, at each meeting, should organize communication in such a way to include: (1) "communicative language", in which the supervisor and student discuss the working process; (2) "subject language", by which they can discuss specific approaches, epistemology, knowledge construction and expression; and (3) "meta-language of research", by which they address the conceptual framework together with the dialogue itself (Wisker 2012: 194).

4. Differences in understanding doctoral supervision

As described above, there is consensus about many key pedagogical aspects of doctoral supervision across the literature. The point in this section is to give a few examples of how different handbooks, together with their many overlaps, forge different core concepts of doctoral supervision. This is not to say that the handbooks project different supervision pedagogies as such, but that they nevertheless contain singular and unique claims, as well as underlying preconceptions, of what is most important in doctoral supervision.

4.0 Gina Wisker: Threshold concepts

Wisker places emphasis on a defining concept which she terms "threshold concepts". Wisker wishes to articulate the experiences many doctoral supervisors have of students approaching key disciplinary challenges within their research project, which forces them to forge new concepts or new meaning of already

paradigmatic concepts within the specific discipline. By doing this, Wisker draws the focus of doctoral supervision into the disciplinary realm, reinforcing the often heard claim from doctoral supervisors that supervision is a strange nexus between disciplinary, epistemological and pedagogical axes overlapping. Wisker points to threshold concepts as the "crucial moments in the research journey, and as ways of identifying when students start to work conceptually, critically and creatively, and so are more able to produce breakthrough thinking (…)" (Wisker 2012: 9). By using this term, Wisker accentuates and foregrounds the notion or the 'hunch' supervisors may get when they recognize that the doctoral student is about to enter into troublesome, but also potentially illuminating, waters. Wisker writes that threshold concepts should be understood as the research project's "'core concepts' because of the necessary and transformative elements each threshold concept represents. Threshold concepts are discipline or discipline-cluster specific" (Wisker 2012: 13).

Comparative to the other works treated in this review, Wisker gives special meaning and importance to disciplinary originality and creativity. Supervising students in their confrontations and dealings with threshold concepts may be challenging, especially because "threshold concepts may represent, or lead to […] 'troublesome knowledge' – knowledge that is conceptually difficult, counter-intuitive, or 'alien'" (Wisker 2012: 14). The supervisor may find it difficult to help students out of the epistemological quicksand they get stuck in, as when "ideas just do not emerge clearly" and when there are "shifts in the way in which a student sees the world and themselves in it", there is a link to the student's "awareness of and confident expression of knowledge creation" (Wisker 2012: 15).

As a strategy for supervisors to help their doctoral students engage with threshold concepts, Wisker suggests that supervisors pay attention to how they work and engage with the student's thinking. Supervisors should reflect if they are encouraging and empowering students to "work conceptually so that they are being critical, evaluative, and problematizing and creating" (Wisker 2012: 16). This challenge is neither about the working and research process nor finding the way into the academic genre of thesis writing, but to help the student to "become fluent in the discourse of their discipline or interdiscipline" (ibid.). By foregrounding the

importance of threshold concepts in doctoral supervision practice, Wisker's work is located in the place between the often assumed perspective of supervision theory as an across-disciplinary perspective dealing with generic aspects of doctoral supervision at the university, and a disciplinary-specific perspective which underlines the differences of the pedagogy of doctoral supervision when dealing with particular disciplines. This calls for further research, as research into disciplinary-specific doctoral supervision is still rather scarce.

4.1 Moira Peelo: Risk in doctoral supervision

Focusing on different aspects of risk, Moira Peelo's concept of supervision contributes an interesting singular feature. Giving voice to potential pitfalls and mishaps during the PhD, Peelo points to challenges of unpredictability, often downplayed in the handbook literature's functional and guiding focus. Peelo describes the phenomenon of 'risk' in relation to different aspects of the supervision process. No matter how well the institution tries to facilitate the doctoral program, "teams can go wrong, equipment may not work, and money runs out" (Peelo 2011: 26). Even though different institutional and administrative systems are set in place to support and guide the doctoral student during the PhD, "it must be said that the nature of research is to be risky […]. Had these problems already been solved, then there would be no 'unknown', no level of difficulty with which to engage" (Peelo 2011: 27). Not only might research equipment and time plans work against the doctoral student, but personal motivation and situation in life may cause difficulties as well. Students may "begin a project that while once exciting inevitably runs into periods of dreariness and toil. Part-time students may be juggling work and families with research, and often at a distance from the institution" (ibid.).

Peelo combines risk with disciplinary aspects as well. Risky aspects not only emerge due to economic and practical facilities that demand administrative suave and efficiency; subject matter is also part of what makes a PhD a risky business. In this perspective, risk "is new subject matter, on the edge, taking understanding forward and on sufficient scale to be worthwhile and to be carried out over a long time period" (Peelo 2011: 26). There is no way of knowing in what directions the

subject matter will take the student and supervision process. This aspect of the unknown is foregrounded in Peelo's research, stating that it is relevant with regard to the character of doctoral students as well. Just because the particular student has done well earlier in their studies, "there is no real way of telling who is going to manage to succeed and who is not. Intellectual development is not a straightforward process because it has a transformative element [...]" (Peelo 2011: 27). This poses serious challenges for the supervisor as there is little or almost no way of knowing beforehand if the student will have a high chance for completion or not. Peelo describes how apparent "plodders came through, in the end, with clear and sparkling analyses of interest and originality, while others who started off as high fliers become stolid and stodgy in their conceptualization" (Peelo 2011: 28). As it is notoriously difficult to predict what type of person and learner will have the better chance of coming through in the end, "each supervisor walks into a risky situation each time they agree to take on a student – no promises can be made realistically on either side" (Peelo 2011: 28).

Furthermore, it is a risky business for students as well. Supervisors may be excellent in all sorts of ways; they may be personally and socially welcoming and competent, and may be experts in the given field of knowledge most relevant for the student. However, as Peelo underlines, "their nerve and expertise when things go wrong may not always be the strongest" (Peelo 2011: 28). Even though supervisors may be experts in the subject, and highly experienced examiners and supervisors, they may be "lacking human sensitivity and, over years of supervising, have lost their excitement and interest in the face of yet another student stumbling through the mists of a PhD" (ibid.). Also, the other way around, supervisors may have lost the patience to allow students to develop their own thesis, as they themselves struggle with time limits and administrative procedures. Supervisors in this situation may be insisting on a particular thesis shape and nature of analysis.

To deal with the challenge of risk in doctoral supervision, Peelo offers advice similar to that described above in the section on generic aspects. However, by affording the topic special attention, and by describing it on different levels of the PhD journey, Peelo evokes and reinforces the notion of risk, making it more potent,

and threatening, but also more real. In the fast growing literature of doctoral supervision, which often has a functional and problem solving character, it is important to give heed to powerful counter concepts as well, such as risk and unpredictability.

4.2 Gunnar Handal & Per Lauvås: Dialogue as key facilitator

In contrast to, for example, Eley and Murray (see below), who construe a concept of doctoral supervision which defines and frames supervision as an institutional phenomenon, Handal and Lauvås anchor the core challenges of doctoral supervision in the personal-professional relation between supervisor and student. As a consequence, these two handbooks can in many ways be seen as mirror images of each other: different yet complementary versions of supervision pedagogy. For Handal and Lauvås, the relational, communicative and interpersonal dimensions of supervision are the main operator and impact factor of the good supervision process. In Handal and Lauvås, it is the dialogue that can be seen as the key 'technology', to be adjusted, applied and formed in different ways throughout the process – as different "forms of supervision" (Handal & Lauvås 2011: 58ff. – my translation). The relational aspect of doctoral supervision is of key importance, and includes; aligning ambitions and expectations in the supervisor-student dyad (Handal & Lauvås 2011: 150ff.); attention to and management of students' ups and downs during the PhD (Handal & Lauvås 2011: 161); and, in general, the focus on supervision of students whom the university as an institution is not well dressed to take care of (Handal & Lauvås 2011: 187ff.). A core challenge for supervisors, in Handal and Lauvås' perspective, is not to engage oneself too much as a supervisor, overtake the student's research project, or assimilate the student into the supervisor mindset (Handal & Lauvås 2011: 166).

Many of the themes concerning the supervisory dialogue often implicit in other handbooks are made explicit and treated separately in chapters dealing with, for example, how supervisors could talk about the supervision with their students (Handal & Lauvås 2011: 171ff.). This chapter deals primarily with meta-communication; how supervisors and students may talk about their talk – how they

pay attention to the way they talk and act towards each other. Communication is the nerve of successful doctoral supervision, and "efficient communication is dependent on that the people speaking together have, or build up, a sufficient arsenal of shared preconceptions which are at work as tacit conditions for the supervisory dialogue" (Handal & Lauvås 2011: 103, my translation). Even though underlying power relations and darker intentions for the supervisory dialogue may be present, Handal and Lauvås still claim that the ideal of the good supervisory dialogue is the power-free mutually recognizing dialogue found, for example, in the philosophy of Jürgen Habermas (Handal & Lauvås 2011: 106). Importantly, Handal and Lauvås link the dialogue explicitly to the disciplinary research, and the depth of the research made possible through dialogue. The depth of the supervisory dialogue is mirrored in the depth of the reflection made available by supervisors capable of explorative and creative dialogues. In this way, the supervisory dialogue becomes the main way to support, enhance and challenge doctoral students in their research to attain depth in the subject matter and autonomy on the personal-professional level.

4.3 Anne Lee: Framing supervision

As should be clear by now, a reemerging theme in the literature on doctoral supervision is how to manage, structure and frame doctoral supervision. Anne Lee does this in an especially clear and concise way by constructing a holistic integrative framework, which includes all the important major dimensions of doctoral supervision. By this approach, Lee tries to give voice to the different challenges from one overall perspective. As Lee explains, this framework is about modulating the different aspects of doctoral supervision (Lee 2012: 12), drawing them up, so to speak, through the use of one overall model which explains the key challenges, acts, solutions and practices out of the five categories termed: "functional supervision", "enculturation", "critical thinking", "emancipation", and "relationship development" (Lee 2012: 5). Some of these terms have also been used in the section on generic aspects above. These categories, or approaches, are "complementary, and the boundaries between them are permeable. They form a useful basis for disaggregating different beliefs and actions in the teaching and the supervisory

process" (Lee 2012: 13). The underlying ambition of holism, or a holistic perspective on research supervision, is important for Lee (2012: 1), who argues that it is a necessity for good doctoral supervision to take into account disciplinary, pedagogical, humanistic, ethical and political aspects at the same time: the frame is "holistic and integrative, it includes organizational, sociological, philosophical, psychological and emotional dimensions" (Lee 2012: 13).

In defining a unique framework, Lee explains how earlier research projects, using interviews with supervisors and students as method, build other types of frameworks working with key modulators, such as, for example, the tension between high and low support in relation to high and low structure (Lee 2012: 19), or modulating a supervisory framework out of the tension between high and low control in the supervision process in relation to person versus task focused approaches (Lee 2012: 20). The point in this section is not about specific frameworks described by Lee and others, but the underlying pedagogical concept of doctoral supervision itself as a framework. Lee makes visible how supervisors, and researchers into supervision, framework when working with doctoral students, as they attempt to divide often extremely complex and multidimensional phenomenon into manageable and transparent simplified pedagogical categories. Lee points out that "one criticism of the framework proposed in this book is that it aims to create too much of a 'tidy reconciliation' of a process which is undeniably messy and individual" (Lee 2012: 13). An integrative framework, such as this, can be viewed as rather demanding, as it suggests that the roles and responsibilities of the particular supervisor are many and diverse, and not easy to align. However, the potentials of an integrative framework for doctoral supervision is to supply a platform of understanding for supervisors, which initially makes pedagogical reflection easier, or less messy, and which helps in organizing the supervisory task on a mental level, thus giving supervisors specific tools and categories to apply in their own specific practice.

4.4 Adrian Eley & Rowena Murray: Formalizing doctoral supervision

This last example is meant as a supplement to the above section presenting frameworks as an underlying concept of doctoral supervision. Where Lee operates with frameworks primarily on the pedagogical level, Eley and Murray frame doctoral supervision as a formal institutional phenomenon. Key words clinging to Eley and Murray's version of doctoral supervision are organization, institution, management, professionalism, and formalization. Eley and Murray describe their aim as to provide a "framework for supervisors to pull together current literature and policy, with their personal values, beliefs and experiences" (Eley & Murray 2009: 6). Where other books on doctoral supervision focus on how formalized and institutional settings help supervisors and students engage in specific dialogues or disciplinary work together, Eley and Murray turn it the other way around and show how the different pedagogical aspects of doctoral supervision should be met by visible and organized frames defined by a shared and public code of conduct. For example, when discussing the dialogical skills of the supervisor, they link immediately to a functional and institutional aspect such as the Viva-presentation (Eley & Murray 2009: 128). Furthermore, when discussing the pedagogy of research supervision, they relate it to ways in which programs for monitoring and assessing research pedagogy have been applied and formed at different universities (Eley & Murray 2009: 165ff.).

Where Lee provides a framework for the good supervisor in the pedagogical role, Eley and Murray provide a framework for the good supervisor in the institutional role. Eley and Murray link specific dialogical competences of the supervisor to how they meet the demands of the QAA, and focus on aspects such as "Monitoring and review arrangements" (Eley & Murray 2009: 68ff.); "Feedback mechanisms" (Eley & Murray 2009: 100ff.); "Good examination practice" (Eley & Murray 2009: 118ff.); and "Complaints and appeals procedures" (Eley & Murray 2009: 136). Eley and Murray are helpful for supervisors as they make visible the different stages in the organizational and educational process of doctoral supervision; furthermore, their work offers supervisors suggestions and guidelines for how to organize and manage the research process, and what formal

arrangements may be beneficial in order to enable the supervisor and student to navigate and keep free of too much institutional murkiness and pedagogical mishaps on the way.

5. Concluding remarks – the pendulum of doctoral supervision

Conclusively, the review suggests new (and more experienced) supervisors to draw on resources of both a generic and individual character. The generic aspects point out what all supervisors should be mindful of, and what challenges they, one way or another, should expect to face during the supervision process. However, just as important, the review also stresses the potential of each supervisor's individual approach to supervision. As the different handbooks each draw on underlying individual understandings of the purpose and pedagogy of doctoral supervision, so each supervisor should pay heed to his/her own personal, or idiosyncratic (Bengtsen 2012; Bengtsen 2011), approach, which holds special and often unique potentials and challenges of its own. After all, the research into doctoral supervision, at its best, channels supervisors' own paradigms, horizons of understanding, and vocabulary, as supervision pedagogy is first and foremost grounded in diverse and professional supervision practices.

In order to help new supervisors manage the complexity of doctoral supervision, and to create a more simplified overview of the main aspects of the literature into doctoral supervision, a meta-framework is presented in the following short sections. This meta-framework has the working title "the pendulum of doctoral supervision", as it shows which core dimensions the pedagogy of doctoral supervision works in between. The pendulum consists of the following semantic pairs: process-product, relation-knowledge, general-individual, institutional-personal. The semantic pairs frame doctoral supervision as a pendulum, moving constantly between points of contrast – crisscrossing and intersecting between them.

5.0 Process – product

The first meta-category contains the continuum and tension throughout the doctoral supervision between working with a product (the research project, and finally the thesis) and working in a process. Every step in the process is mirrored by the shape and quality of the product produced. As the product is always on the way, different challenges at different points in the research process emerge concerning that product, but from a process-related point of view. It is therefore crucial for the doctoral supervisor to continually align the expectations and forms of feedback applied between process and product dimensions, in order not to measure a first draft analysis by criteria for the end stage version of the thesis. This means evaluation of the product changes and tightens during the process, moving from an open and playful form of feedback to a more tight and fixed expectation to the final product. This is not to say that supervision feedback becomes more and more unpleasant, as early stage and final feedback forms can be equally redeeming or painful experiences. The point is that the overall argument and structure of the research project should be aligned by means of supervision as the thesis approaches completion.

5.1 Relation – knowledge

The second meta-category in the pendulum focuses on the semantic continuum between relational and knowledge-based aspects of doctoral supervision. In no other teaching format are relational and didactical, or personal and professional, dimensions of an educational encounter as predominant as in supervisory dialogue. Due to the highly dialogical character of supervision as teaching, the supervisor's expertise and expert knowledge becomes fused with his/her more personal focus and weight on specific disciplinary matters and perspectives. As the supervisory dialogue often forms through mutual questions and answers, nuances and subtleties emerge and sprawl up, which is not the case in other formats. Also, teaching as dialogue may become sidetracked, defocused and confused, as the dialogical character of the teaching tends to have a less linear and clear line of progress.

This poses different pedagogical challenges, and it can be difficult to define if what the student finds useful and supportive is knowledge conveyed and thus made a relational aspect, or relational action that proves advantageous because of the knowledge issue it addresses. In this way, supervision is the teaching format that merges the deepest knowledge issues with powerful relational aspects to the greatest degree. Throughout the doctoral process, to maintain a well-balanced and open supervision, the supervisor must reflect the mutual influence which relational and knowledge-based aspects have on each other, and what consequences this may have for the doctoral student's work process and final product.

5.2 General – individual

The third meta-category in the pendulum focuses on the semantic continuum between generic and individual aspects of doctoral supervision. This category points to the simultaneously horizontal (generic) and vertical (individual) dimensions of the supervision process. The horizontal line covers the generic aspects, or, in other words, the typology of doctoral supervision: the typical doctoral student and supervisor, the typical challenges encountered during the typical PhD process, the typical ways of handling these challenges, and so on and so forth. The vertical line covers the individual aspects: the more idiosyncratic (Bengtsen 2012; Bengtsen 2011) ways *this* doctoral student or *this* doctoral supervisor works and thinks, and the special character of *this* disciplinary problem encountered in the research process. Doctoral supervision is always at the same time typical to and different from all other previous experiences. This means that the supervisor must apply different pedagogies at the same time; pedagogies dealing with general and individual aspects of the same phenomenon. The understanding can be termed a complementary concept of supervision, which prescribes the merging of different pedagogical reflections and actions: a supervision meeting always takes place as a typical *and* individual meeting.

5.3 Institutional – personal

The fourth meta-category in the pendulum focuses on the semantic continuum between institutional and personal aspects of doctoral supervision. The institutional level focuses on the ways doctoral supervision can meet the criteria set forth in the qualification framework, for example, and how links between political, departmental and disciplinary perspectives, goals and competences may be united. The institutional levels of doctoral supervision also include supervision on educational aspects of the PhD process: courses the doctoral student should take, managing and guiding the doctorate in relation to workload, and otherwise deal with administrative aspects of the process. The purpose of the institutional level is to make the implicit explicit, making informal aspects formal, and tacit dimensions visible and manageable for the sake of the institution, supervisor, and student.

The other end of the continuum is the personal level. The personal level in this context is not the same as the individual level – as the personal dimension can be viewed from both a general and an individual point of view. Instead, the personal level is defined in contrast to the institutional level, thus covering what cannot (easily) be formalized, and has to do with underlying socio-cultural values and norms, which often lies in a blind angle when reflecting pedagogical activity. Thus, the term 'enculturation' lies between institutional and personal levels, where the personal level in its radical form is dependent on the particular meaning of underlying contextual values and norms. The range between institutional and personal levels can roughly be said to mirror the tension between formal and informal aspects of the supervision context.

The pedagogical implications of the institutional-personal divide consist in keeping in mind and facilitating the duality and play between formal and informal teaching and learning strategies: bearing in mind the often tacit rules, codes of conduct, and ways of negotiating meaning within personal and socio-cultural spheres of activity.

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