Towards laboratories for meta-reflective didactics

On dialogues between general and disciplinary didactics

Ellen Krogh and Ane Qvortrup

In continental Europe, didactics is a core concept of educational theory and practice within which two specialisations have evolved: domain-specific didactics – here termed *disciplinary didactics*¹ – and *general didactics*. In Denmark, as in the wider Scandinavian context, the scholarly field of didactics is traditionally conceived as a subdiscipline of the overall scientific field of pedagogy, with the range of individual disciplinary didactics (in the plural) viewed as subdisciplines of general didactics. This conceptualisation has been contested since the 1980s. In the wake of globalisation and following the importation of anglophone educational paradigms, the position of didactics as well as the relation between general and disciplinary didactics have increasingly become issues of controversy, both within the world of academia and that of teacher education. The present chapter delves into these issues. Building on the Danish case, we develop a conceptualisation of didactics in which it is viewed as an independent education science rather than a mere subdiscipline of pedagogy. We suggest that both general and disciplinary didactics are meta-reflective scholarly fields, but that they constitute different yet complementary perspectives on educational matters. This meta-reflectivity supports reflection on and prioritisation of various educational goals. It further paves the way for scholarly self-reflection on didactics as a field rooted in specific cultural and political historical circumstances that have shaped ideas of education and educational goals.²

Didactics: a general introduction

The international dialogue on didactics unfortunately encompasses a problem of translation, as key terms in the discipline are not directly translatable into English. The narrow and somewhat derogatory meaning of the English word ‘didactics’ as the method of direct instruction in no way covers the meaning of the term in the north-west European educational context, where didactics involves theoretical, descriptive, and exploratory as well as normative, prescriptive work with the basic questions of teaching and learning – the what, the how, and the why. As such, it is involved or embedded in almost all professional activities dealing with teaching and schooling (Gundem, 2000). More specifically, didactics can be seen as operating at three concurrent levels: a theoretical or research level, where

didactics denotes a field of study; a practical, exercised level, where didactics mainly comprises the fields of teaching, curriculum-making, and schooling; and a discursive level, where didactics denotes the frame of reference for professional dialogues among teachers discussing school matters or other issues of teaching and learning (Hopmann and Gundem, 1998, p. 334).

Historically, there has been a wide variety within the field both in foci and in ranges of scope, but most of these share basic commonplaces: the autonomy of teaching, the distinction between content and the educative meaning, and, tightly connected to these, a commitment to the concept of *Bildung*:

The purpose of teaching and schooling is . . . neither to transport knowledge from society to a learner (curriculum), nor a transpositioning of knowledge from science or other domains to the classroom, but rather the use of knowledge as a transformative tool of unfolding the learner's individuality and sociability, in short: the *Bildung* of the learners by teaching. (Hopmann, 2007, p. 115)

Hence *Bildung* relates to the transformative potential of education: the assumption that individuals can shape themselves and, in the process, contribute to wider social progress (Hamilton, 1998, p. 80).

The division of labour between general and disciplinary didactics originates in German didactics and teacher education (Gundem, 1998). Here, general didactics represents the overarching theory of pedagogic decision-making, as well as general theories of teaching, learning, and *Bildung*, while disciplinary didactics concerns the didactic issues of school subjects and disciplinary knowledge: that is, the relations among the content of disciplines (the 'what'), approaches and methods (the 'how'), and reasons and justifications for choosing content and approaches (the 'why') (Gundem, 1998; Ongstad, 2002). In the 1980s, the emergence of disciplinary didactics created a new wave within the field of didactics in the Nordic countries (Gundem, 2000, p. 254f.). In France, a similar ascendancy in disciplinary didactics had begun a decade earlier, related to the development of disciplinary didactics as an academic field (Schneuwly, 2011). But whereas French didactics is first and foremost to be understood as disciplinary didactics, focusing on transmitting and conveying disciplinarily organised content, in the Nordic countries, according to Gundem (2000), the growth of disciplinary didactics in the 1990s did not minimise the influence of general didactics. As we shall see next, however, other trends did work to reduce the influence of general didactics in the Danish context.

General and disciplinary didactics in the Danish context

In parallel with the wider international trend in the closing decades of the twentieth century, both interest and knowledge development accelerated within

disciplinary didactics in Denmark (Krogh, 2017; Holmberg et al., 2019). As in France, this development was related to the rise of didactics as an academic field. In the 1960s, the Danish Teachers High School or Lærerhøjskole³ had been established to offer primary and lower secondary school teachers an academic education and to conduct a programme of pedagogical and didactic research.⁴ With some delay, in the late 1990s, a university department for “upper secondary pedagogy”⁵ was established, developing the Pædagogikum as well as advanced didactic courses for upper secondary teachers. Both institutions, dedicated to disciplinary didactics as a general research field, contributed to the rise of Danish disciplinary didactics (cf. Holmberg et al., 2019, p. 10ff.). At the present time, research within disciplinary didactic fields such as L1 didactics, natural science didactics, math didactics, and foreign-language didactics has become institutionalised in higher education positions and has organised itself in networks and around journals. In addition, researchers meet at regular Danish symposia on comparative disciplinary didactics as well as at biennial NoFa conferences (i.e. Nordic disciplinary didactics). Publication channels are the Danish *Cursiv* as well as the Norwegian *Acta Didactica Norden*.

As academic disciplinary didactics grew in influence, general didactics lost pre-eminence in the Danish context for several decades. Research environments oriented towards general didactic issues would often refer to pedagogy or learning theories rather than using the term ‘didactics’ (Qvortrup and Krogh, 2016). These changes originated in broader educational trends in which students’ learning and learning theories were coming increasingly into focus. Within the so-called learning paradigm, teaching – and thus also teaching research – was oriented towards activities where the “learning environments and activities are learner-centred and learner-controlled. They might even be ‘teacherless’” (Barr and Tagg, 1995, p. 21f.). The paradigm manifested itself in mantras such as “from teaching to learning” (Barr and Tagg, 1995), “responsibility for one’s own learning” (Ansvar for egen læring, Bjørgen, 1991), and also in the Australian PEEL project (Baird and Mitchell, 1986), with its focus on students’ learning processes, activities, and skills. At present, notions of learning have penetrated Danish education and schooling, and under the mantra of lifelong learning, serve to conceptualise activities across the span from day care to the ‘third age’. The preoccupation with learning led to a reduced interest in, even a devaluation of the concept of teaching, because teaching was constructed as a phenomenon associated with conservative, authoritarian ideals of education (Qvortrup and Keiding, 2016). From the perspective of the learning paradigm, didactics was a blind spot.

Related to the learning paradigm, competence goals, overlapping with content categories and knowledge goals, were introduced into Danish curricula at all levels after the turn of the millennium. This, together with societal shifts in emphasis towards individualisation, has created uncertainty about the objectives and content of educational programmes that traditionally were oriented towards integrated aims of socialisation and individuation as incarnated in the notion of *Bildung*.

As both general didactics and disciplinary didactics are challenged by the learning paradigm and by the importation of the notion of competence, it may be surprising that disciplinary didactics grew stronger and more visible during this period, even as general didactics lost influence. According to Gundem (1998, p. 41), one reason for this is the close association of disciplinary didactics with both academic content and classroom practice, in contrast to the more abstract and overall issues raised within general didactics. Applying a sociology of knowledge perspective, Ongstad (2006) suggests that the flourishing of disciplinary didactics should be viewed as a response to the permanently changing contexts of school subjects and disciplines in the present age. When disciplinary knowledge is subject to pressure for change, there is a constant need to justify, reflect on, investigate, and further develop the knowledge field in question within the changing contexts, a motivating force for research and development. A parallel analysis is found in Schneuwly (2011).

Getting closer to our own time makes it harder to maintain a clear picture of movements within the Danish didactic field, and we find contradictory tendencies. On the one hand, the developments just described are confirmed, particularly within the field of teacher education, where disciplinary didactics has now been allocated a stronger position in curricula (Qvortrup and Krogh, 2016). On the other hand, as elaborated later, general didactic knowledge and knowledge development have also become increasingly influential, both at the academic level and at the level of teaching practice.

New actualisations of general didactics

The increasing interest in general didactic knowledge development may be viewed in the context of two trends, both of which draw on broader international inspirations than the traditional orientation towards German and Nordic contexts and hence indicate that the Danish and Nordic education system has moved in the direction of a more international perspective (Telhaug, Mediås, and Aasen, 2006). One trend targets the content of education, while the other targets a more structural dimension. Regarding the content of education, the increasing interest in general didactic knowledge can be related to shifts in and negotiations of educational and disciplinary standards. A stronger focus on competences and on knowledge defined not from within the disciplines but by reference to societal demands and the time we live in has resulted in a shift in the balance of knowledge and meta-knowledge such that “more disciplinary didactics [in the plural] are approaching general didactics or general disciplinary didactics” (Ongstad, 2006, p. 12). Thus, general didactic aspects have become accentuated through and in dialogue with disciplinary didactics. Regarding the structural dimension, we refer to the political interest in evidence-based knowledge spurred by international comparative studies, particularly the OECD PISA studies, and the growth of influential empirical meta-studies such as Hattie (2009), Helmke (2009), and Meyer (2004). These meta-studies actualise general

didactic issues because they focus attention on the more general aspects of teaching: what general criteria for good teaching can be identified, independent of the specific subject and specific context? According to Hattie, the knowledge we get from empirical meta-studies “does not supply us with rules for action but only with hypotheses for intelligent problem solving, and for making inquiries about our ends in education” (2009, p. 247). The very fact that empirical education research does not provide instructions to be enacted points to the importance of didactics, with its theorising, its modelling, and its normative focusing on teaching and teaching processes. Helmke points out that “[w]e must wish and hope that, in common interest, we will succeed in diminishing the gap between on one hand empirical research in teaching and learning and on the other hand general didactics” (2009, p. 54). Quoting Arnold, he continues: “What is fascinating in this constellation is that one research area contains precisely the supplementary components that the other area is lacking” (p. 54).

Thus, the emergence of empirical meta-studies and political demands for evidence-based teaching have created a renewed awareness of the need for didactic theories and research. One result is the call for investigations and discussion of the implications of meta-data for the understanding of teaching and learning (cf. for instance Biesta, 2012), as well as for transforming the meta-study indicators of what characterises good instruction into didactically reflective and applicable categories (Qvortrup and Keiding, 2014).

The revitalised dialogue between general and disciplinary didactics

This development only served to make renewed dialogue between general didactics and disciplinary didactics more important than ever. In the 1980s and 1990s the two fields were seen in the Danish context as hierarchically related. General didactics was described as “a more fundamental discipline than disciplinary didactics” (Nordenbo, 1983, p. 10), and a decade later, Schnack (1993) deplored the rise of strong individual disciplinary didactics (in the plural) with differing notions of learning and views of the human and society, claiming that this development poses an obstacle to shared didactic work towards general Bildung aims. In the other direction, from the perspective of disciplinary didactics, the field was constructed in reverse hierarchical fashion, positioning the scientific discipline as the overriding reference for disciplinary didactics, while general didactic issues concerning students and the social circumstances of teaching were conceived of as problems to be addressed at lower levels (Niss, 1997).

Since the turn of the millennium, however, we find Nordic endeavours to construct the relation between the two fields differently. Gundem (1998) argues that a wide understanding of didactics capable of including social and organisational structures and processes that influence the conditions of students and teachers is at the centre of pedagogy and in fact integrates its other subdisciplines. She further claims that within the field of didactics, it is disciplinary

didactics that has most explanatory force in relation to concrete decisions and choices, since disciplinary didactic reflections take place “in the intersection between pedagogical theory and disciplinary science, between general didactic theory and educational practice” (Gundem, 1998, p. 41f.). Further, Gundem documents that disciplinary didactic theory was developed within this intersection before becoming generalised into general didactic theories and models.

Ongstad (2006) argues for a similar understanding of the potentials of disciplinary didactics, without, however, adopting Gundem’s placing of the field within the disciplines of pedagogy. He regards disciplinary didactics as an independent, communicative knowledge field that develops reflection on specific subjects and their significance for our knowledge about the world, about society, and about the forming of identities. Within this conception, rather than leading to narrow specialisation, researching specific subjects can offer a way of achieving overriding *Bildung* aims. Ongstad regards this development in disciplinary didactics as an invitation to engage in dialogue with general didactics:

Carefully generalised disciplinary didactics [in the plural], along with an open-minded general didactics that follows the development of disciplinary didactics, may contribute to a new platform for both the theory of science, research, and education within the field.

(Ongstad, 2006, p. 31)

Within the wider European context, the relation between general and disciplinary didactics has been thematised within the EERA 27 research network, Didactics: Learning and Teaching. In the introduction to a special issue of the *European Educational Research Journal* on the occasion of the tenth anniversary of the network, Ligozat and Almqvist discuss the “fiercely debated” structuration of didactics within different traditions: “The tendency to keep the subject specificity as a core principle is often opposed to the conceptualisation of the teacher–learner–content relation as a more general unit of analysis” (2018, p. 4). In line with the preceding Nordic reflections, Ligozat and Almqvist find that the research field as it stood in the year 2017 – as represented in the papers of the special issue – has the potential to go beyond the divide between general and disciplinary didactics. They extend this argument further to cover disciplinary didactic fragmentation and divides between specific subjects, as well as divides between curriculum theories and classroom studies in anglophone countries (Ligozat and Almqvist, 2018, p. 12). Ligozat and Almqvist point to comparison as the key tool for this venture (see the concluding section).

Didactics as a doubly reflective science

Concurring with these possibilities for dialogue and suggestions of a shared platform for knowledge development and practice, we call attention to *meta-reflection* as a didactic answer to contemporary challenges. The observed

development can be described as a response to uncertainty concerning fundamental issues of knowledge, schooling, and education – uncertainty that challenges teachers' didactic analyses and calls for research and renewed theoretical reflection on the knowledge field of didactics.

An important backdrop to contemporary challenges is the global knowledge economic competition which puts pressure on educational knowledge and expertise to promote competitive innovation and directs political attention towards efficiency and quality in education. Neoliberal management approaches call for decentralising government through market regulation of public schooling, but at the same time serve to secure centralised control through quality measures of 'outcome' that are based on standardised goals of student performance. As a result, accountability demands for the justification of choices of content and teaching practices have changed, and teachers are currently experiencing pressures for new kinds of reflection related to didactic analyses and choices. We could say that insofar as it represents a doubt that undermines their very foundation, uncertainty imperils didactic choices. How do we know what is better for the students in the concrete classroom – to prioritise training for tests and exams, so that their individual options of further education and jobs are increased? To prioritise other goals relevant for the workforce, such as innovative competences? Or to prioritise disciplinary knowledge goals, which are directed at developing and qualifying new perspectives on the world? There are no absolute and general answers to these questions. Yet teachers have to judge, decide, and act accordingly every day.

This analysis naturally implies no disregard either for the daily didactic analyses in which teachers engage or for the rich knowledge field of didactic and disciplinary didactic theories that serves to inform didactic analyses. It does, however, imply an enhanced complexity of the conditions of didactic analysis, as well as a need for recognition among teachers that theories and models offer possible answers and possible choices that might have turned out differently had other perspectives been adopted. Teachers need to be capable of adopting a second-order perspective on their didactic choices, that is, to observe these as choices.

At the theoretical level, we suggest capturing these developments by characterising didactics as a doubly reflective science. Even though developments within general and disciplinary didactics have been theorised differently, we also find shared features.

The analyses that follow of the meta-reflective positions within, respectively, general and disciplinary didactics draw on *perspective* – not only as a key concept but also as a focal point for understanding didactics as a humanistic science and didactic analysis as the form of knowledge of didactics. Drawing on the work of anthropologist Kirsten Hastrup (1999), we regard the *interpretation* of something that gives meaning as being at the core of humanistic sciences. The hermeneutic project is foundational in humanistic science for the very reason that it sustains the Renaissance discovery of the human

perspective, and this argument gives hermeneutics as a scientific practice a scope of higher order that transcends the literary and philosophical hermeneutic positions of the nineteenth and twentieth centuries. Adding to this line of thought, the historian of ideas Lars-Henrik Schmidt (1999) discusses humanistic science as a practical philosophy *or* as an analytical practice, yet with interpretation tied to a perspective being the basic condition common to both. Schmidt defines this practice as a *form of knowledge*, a ritualised disciplinary strategy tied to a specific knowledge area (Schmidt, 1999, vol. I, p. 36ff.). Within this frame of reference, we regard didactic analysis as the form of knowledge of didactics, tied to the knowledge area of education, content, teaching, and learning.

At the sociology of knowledge level, this development can be registered as shifts in the conceptualisation of the didactic fields towards independent knowledge areas, while in institutionalised contexts they still retain the status of disciplines. An illustrative case is Krogh's (2009) comparative study of Gundem's and Ongstad's conceptions of disciplinary didactics. Whereas Gundem (cf. earlier in the chapter) conceptualises disciplinary didactics as a subdiscipline of pedagogy that is exclusively related to education, Ongstad conceptualises the field as a late modern social phenomenon related to changes in disciplinarity and knowledge (see further later in the chapter). As a scientific subdiscipline, disciplinary didactics has established structures in the field along binarities such as abstract/concrete and whole/part, with the constitutive forms of knowledge being theory and practice. When, in contrast, disciplinary didactics is regarded as a late modern social phenomenon related to changes in disciplinarity and areas of knowledge, the field generates more processual and context-reflective analytical practices and reflection comes to be regarded as the constitutive form of knowledge. As emphasised by Krogh, these two conceptualisations of disciplinary didactics currently supplement each other, and this analysis illustrates a double reflectiveness at the scholarly level. It further demonstrates that teachers' uncertainty regarding educational goals and choices has its parallel in scholars' uncertainty regarding culturally constructed forms of knowledge and educational ideals.

In what follows, we take our departure in the preceding theoretical frame of reference and proceed to explore general and disciplinary knowledge as parallel, equally important, but different *perspectives* on the increasingly complex didactic area of knowledge. In Danish didactic research communities, the new conditions of double reflectiveness have been theorised within two different frames. The general didactic perspective has been theorised within the frame of sociological systems theory and the disciplinary didactic perspective within semiotic communications theory. Both didactic perspectives, however, point towards what may be termed laboratories for comparative didactics – whether these are to serve as ‘contingency management’ at the general didactic level or ‘didactisation’ at the level of disciplinary didactics.

General didactics as contingency management

Within Danish general didactics, the double reflectiveness of didactics has been theorised in the systems-theoretical didactics developed by Keiding and Qvortrup (2014). Since the mid-1990s, Niklas Luhmann's systems theory has been the source of inspiration for a community of Danish education researchers within educational sociology (e.g. L. Qvortrup, 2004; Rasmussen, 2004), pedagogy (von Oettingen, 2010), and didactics (Hansen, 2006; Qvortrup and Keiding, 2014). The systems-theoretical didactics proposed by Keiding and Qvortrup (2014) builds on their previous analytical and theoretical work and draws on a range of further German didactic research in addition to Luhmann and Hopmann.

According to systems-theoretical didactics (Keiding and Qvortrup, 2014), teaching is characterised by a boundary or distinction between intentionality (e.g. teaching) and uncertainty (e.g. learning). The distinction cannot be removed, and teachers need to maintain and reproduce their sensitivity towards it by insisting on both sides of the distinction. While it is probably not desirable to give in to uncertainty and unpredictability, even given intensive planning and controlling it will rarely be possible – and not desirable either – to maintain a strict steering towards the intended goal.

Systems-theoretical didactics describes the didactic knowledge field as an important resource for handling the distinction between intentionality and uncertainty. Thus, the didactic field holds theories that position themselves on either side of the distinction. We find theories that regard the unpredictability of teaching as an inconvenience and consequently focus on trivialising teaching, and we also find theories that regard unpredictability as an ideal quality that contributes to the emergent nature of teaching or advances teaching that is governed by the students' unpredictability and dynamics of self. These differing conceptualisations of teaching become resources that teachers can use to maintain the awareness of "what is possible if *this* is not possible" (Luhmann and Schorr, 1982, p. 16): that is, the permanent awareness of doing something, acting, but also always doubting the act; the need to trivialise teaching, but at the same time focus on its emergent nature. In this respect, didactic theories constitute an important knowledge domain of 'reflection programmes' for teachers' continual movement back and forth across the boundaries of teaching. The separate theories do not solve the 'problem' of teaching, since that is a basic condition, but they constitute a 'script' that provides solutions within its own context. "If this script is made the basis of teaching (and that applies to other scripts as well), it merely means that the teaching will be observed and assessed from this viewpoint" (Luhmann, 2006, p. 171). Hence it is essential that no theory should stand alone but needs to be doubted and supplemented with other didactic theories so as to maintain sensitivity to the boundaries of teaching. Any didactic theory implies blindness to something and therefore necessarily calls

for reflection on the choice of what to see. For this reason, systems-theoretical didactics is described as a both/and didactics. Didactic analysis based on repeated both/and focusing is described as an essential didactic competence that includes meta-reflection – which is conceptualised as a second-order position that makes it possible to catch sight of the blind spots of concrete choices (Keiding and Qvortrup, 2014, p. 260f.).

Künzli (2002) and Hopmann (2007) have identified three distinct phases in the history of didactics: didactics as (1) order, (2) sequence, and (3) selection. With the systems-theoretical analysis of didactics as a doubly reflection science, we may add a fourth phase, identified as *contingency*⁶ *management*. While didactics as selection captures the situation in which a surplus of available knowledge creates the need for didactic reflection on what to include or exclude (Hopmann, 2007, p. 113), didactics as contingency management deals not only with selection but also with awareness of this *as* a selection and of the risk that follows from this. Teachers who maintain and reproduce their sensitivity towards the complexity of teaching will continually observe and thematise their didactic choices as choices; they will be driven by permanent critical reflection, searching for perspectives and opportunities for action that provide concrete answers in specific situations. But despite the demand for ongoing questioning arising from uncertainty about choices, systems-theoretical didactics does not paralyse action; on the contrary, it directs attention to the testing of both old and new roads. Hence, a crucial aspect of the theory is the advance of knowledge about these possible roads: about didactic research, theories, and models that create the basis for reflection not just about concrete choices, but about a wider set of approaches and possibilities for action.

This position involves a change to the academic field of general didactics. Historically, didactics was a humanistic (*geisteswissenschaftliche*) Bildung philosophy and also, in teacher education and educational practice, a practical methods discipline. It was regarded, in other words, as by definition normative or prescriptive. After the 1970s, however, a descriptive tradition became established that applied scientific methods to the empirical study of the circumstances in which teaching and didactics take place (Imsen, 2006). The theory of didactics as contingency management challenges the boundaries between didactics as, respectively, a normative prescriptive and a descriptive analytical discipline. Instead, an analytical normativity has been developed, which caters for the need to reflect on teaching in the light of *different* normativities. These different normativities form a central domain for reflection on teaching, and one that complements and must engage in dialogue with two additional domains – teachers' experiential knowledge and empirical educational research (Qvortrup and Keiding, 2014). The diverse range of didactic theories and models offers different thematisations of teaching that may be considered in a given situation in order to provide resources for acting according to the complexity and unpredictability of teaching.

Disciplinary didactics as didactisation

Within Danish disciplinary didactics, the double reflectiveness has been theorised within the communicative conceptualisation of disciplinary didactics, developed by the disciplinary didactician Sigmund Ongstad. Ongstad (2002, 2006) points out that a research-based disciplinary didactics rests on relations between the content of the subject (the what), the methods (the how), and the reasons for choosing content and approaches (the why). These interrelated aspects provide the point of departure for disciplinary didactic practice and research. There is, however, also a need for meta-didactic reflection and communication. For Ongstad, this constitutes the primary task for contemporary disciplinary didactics, but it is also the background against which increased attention can be paid to disciplinary didactics within academic disciplines and professions.

In knowledge economies, where there is demand for global competitiveness and adaptability, specialised knowledge is under pressure. Hence, there is a need for subjects and disciplines to discuss and justify their special contribution to education in answer to fast-changing conditions and contexts. Disciplinary didactics occurs through and as communication, which as a meta-dimension involves reflection on subjects and disciplines (cf. Ongstad, this volume). Ongstad introduces *didactisation* as the key concept for the communicative processes of reflection that propel contemporary disciplinary didactics (Ongstad, 2006). He states, as a purely descriptive observation, that contemporary disciplinary didactics, realised as didactisation, must take on a strategic responsibility to preserve, continue, and develop specialised knowledge that is under pressure from permanent change.

Didactisation, then, is both a descriptive and a neutral concept. Reflecting on processes of didactisation within Norwegian teacher education, Ongstad (2004) emphasises that there will be potential traps with both weak and strong didactisation of subjects and disciplines. With weak didactisation comes the danger of losing sight of the complexity of learning and the diversity of learners, and thus losing relevance in the teacher education context. With strong didactisation comes the danger that subject-specific content will be downplayed to the advantage of general educational aims and policies. Strategic responsibility in the context of current disciplinary didactics therefore involves a balancing act to avoid both these pitfalls.

Didactisation takes many shapes. It can take place at both practical, theoretical, and research levels. Importantly, it can also take place outside the educational field, wherever disciplinary knowledge and expertise is put to work in new contexts, or when the benefit of specialised knowledge is called into question. Ongstad's triadic semiotic communication concept draws on work by Bakhtin (1986) and Bühler (1934/1965). Rejecting the understanding of communication as a mere translation device between discipline and didactics, he conceptualises communication as an independent third aspect that actualises basic life-world aspects. In the communicative utterance, an 'I' addresses a 'you'

about the 'world'. The utterer expresses himself and gives *form* to a knowledge *content* through a communicative *act*. Thus, understanding disciplinary didactics as both communication and reflection actualises existential and *Bildung* issues that derive from the communication itself. Rather than directly combining disciplinary knowledge and general didactics, therefore, Ongstad regards disciplinary didactics as a post-industrial knowledge phenomenon connected to communication which constitutes an independent position for the observation of knowledge, subjects, teaching, and learning.

This theory makes meta-reflection part of the definition of disciplinary didactics – but as a both/and position. The classical didactic questions – what, how, why – are still of basic importance for disciplinary didactic knowledge production. Didactic analysis concerning the selection of content and the structuring of classroom practices constitutes disciplinary didactic practice, but didactic analytical practice has been expanded to include the role of communicative reflection. As core agents of schooling, teachers face various different challenges of didactisation. They may be challenged to didactise *outwards* so as to justify and argue for the relevance and usefulness of their subject in relation to for instance a fluent job market. They may need to direct didactisation towards their colleagues, in circumstances when interdisciplinary work requires the elaboration of subject knowledge and forms of knowledge production. But they may also face *inwards* challenges of didactisation in classroom discussions with students about the relevance of the subject and about what they need to learn, how, and why.

For teachers, therefore, the need for double reflection is a daily condition. To be able to face the challenges, they need access to a repertoire of research-based disciplinary didactic knowledge. They need access to theory and models of action that make it possible to respond reflectively *and* dynamically to uncertainty about the knowledge foundation of their teaching practice, where new discourses are offered at ever-increasing speed both by reform policies and by the textbook market.

Drawing on Michel Foucault, talk about the need to develop a *disciplinary didactic ethos*. Foucault described the philosophical ethos of modernity as a double attitude marking itself at one and the same time both as a state of belonging and as an obligation to think about what is outside: that is, with an inseparable duality between acting and reflection (1984, p. 568; cf. Krogh, 2006).

Laboratories for comparative didactics

As we have seen, contingency management and didactisation conceptualise parallel practices of double reflection. In both cases, meta-reflection is regarded as the contemporary condition for didactic analysis. No single theory, model, or concept can handle the contemporary challenges encountered in the previously protected space of schooling and education. Under challenge from

empiricist evidence orientation, politicisation, and economisation, school subjects are forced to develop a “pronounced and permanent readiness for change” (Ongstad, 2006, p. 28). The same applies to the concept of *Bildung*, and to discussions of the relationship between subjectivity and sociality in which “the self, the subjectivity, is not simply integrated into the social. In modernity, the balance between subjectivity and the world appears as a task” (Krogh, 2006, p. 127, transl. by chapter authors).

But the differing perspectives and theoretical groundworks from which the two concepts derive mean that the didactic analysis is construed somewhat differently within the two settings. Within the theory of systems-theoretical didactics, contingency management is described as a norm for a specific analytical practice that makes it possible to cope with paradoxical distinctions and fundamental doubt. Through its second-order conceptualisation of didactic analysis, this analytical practice provides both explanatory power and recommendations for how teachers are to handle contemporary educational challenges. In advancing ‘analytic normativity’, the theory challenges the traditional boundaries between normative practice and descriptive theory. Thus, although the theory of contingency management does not claim a fundamental difference in status for its repertoire compared with other didactic theories and models, it does claim to offer an unprecedented and highly relevant answer to contemporary challenges.

Within the theory of communicative disciplinary didactics, on the other hand, didactisation is conceived as an empirically observable condition of contemporary disciplinary didactics, and one that is propelled by permanently changing contexts for disciplinary knowledge and expertise. The analysis of this condition offers no recommendations but, on the contrary, points to the risks inherent in both weak and strong didactisation. Still, the theory of semiotic communication as a constituent of disciplinary didactics provides a framework for didactic analysis that actualises a *Bildung* aim through the access that students gain to different disciplinary knowledge areas. Since didactisation connects knowledge, teaching, and learning with fundamental life-world dimensions, this practice holds the expectation that processes of didactisation within school subjects will actualise affective/aesthetic as well as cognitive/epistemological and social/ethical life-world aspects. Hence, while systems-theoretical didactics is normative at the level of teachers’ realisation of didactic analysis, communicative disciplinary didactics is normative at the level of the *Bildung* concepts and aims that inform didactic analysis.

An interesting further convergence between the two positions, in addition to the double reflectiveness approach, is connected to the pivotal status of communication in both theoretical frameworks. Communication, however, is not easily established as a theoretical commonplace. Within systems theory, social systems such as teaching are conceptualised as operationally closed networks of communication. Hence, communication is closed to psychic systems such as human agents, operating rather as socially manifested, observable processes.

The concept of communication proposed by Sigmund Ongstad is theorised within a social semiotic framework in which human agents are presupposed as sign makers, ‘utterers’, and addressees, and where the meaning of utterances is dependent on socially established genres and discourses.

The two frameworks – and the didactic *perspectives* framed by them – may, however, complement each other, both at the level of teachers’ practical didactic analyses and at the academic level of research and theory development. At the practical level, teachers will need access to both general didactic and disciplinary didactic knowledge resources, and they will most often combine these in personalised didactic approaches. Still, “Didaktik and Bildung require normativeness, but they do not force submission to just one set of norms or beliefs” (Hopmann, 2007, p. 117). In the face of changing contexts that challenge their established didactic knowledge construction, teachers depend not just on the accessibility of knowledge resources but also on meta-reflective knowledge about the potentials and limitations of different perspectives. Hence, the need develops for communication within teacher education as well as in-service training that support meta-reflection in the form of contingency management or didacticisation, while at the same time acknowledging the existence and qualities of the alternative perspective and additionally suggesting complementary approaches.

At the academic level of research and theoretical development, the distinctions between the two perspectives are much more clearly drawn, even “fiercely debated” (cf. Ligozat and Almqvist as quoted previously). At a theoretical level, the difficulties of finding common ground were illustrated in the preceding comparison of sociological and semiotic conceptions of communication. At the same time, however, these sporadic observations also illustrate the potential offered by comparative studies for reaching new insight by acknowledging and further exploring differences of disciplinary and theoretical positions.

As already indicated, the realisation of these potentials within the Danish and Nordic disciplinary didactic community led to the establishment of ‘laboratories of disciplinary didactics’. These were institutionalised in research programmes, symposia, and conferences and are documented in a range of Nordic-language publications. More recently, we can extend the scope of developments even further. Contemporary *laboratories for comparative didactics* include comparative work across the perspectives of general and disciplinary didactics, as well as renewed dialogues between the international educational traditions of didactics and curriculum (Qvortrup and Krogh, 2016; Christensen et al., 2018; this volume). Within the wider European context, there are parallel endeavours within Network 27 on Didactics, Learning and Teaching of the European Educational Research Association (EERA), as documented in special editions of the *European Educational Research Journal* in 2007 and 2017 as well as in Hudson and Meyer (2011). Ligozat and Almqvist (2018) suggest that the divides between general and disciplinary didactics, as well as those between didactics and curriculum, can be bridged by two strands of comparative research, both of which are

exemplified in the special issue. One of these strands addresses the relationships between the theoretical constructions developed within the research traditions and the epistemologies in which they are embedded. This requires the double process of examining the historical and philosophical roots of their emergence and examining empirically how they operate. The second strand concerns comparisons between educational contexts, school subjects, curricula, and classroom practices.

Within the present laboratory of comparative didactics, Ane Qvortrup (2018) has explored the capacity of the “art of eclectic approaches” (Gundem, 2011) to address theoretical and cultural differences. According to Gundem, the art of eclectic approaches is a matter of “contributing to *clarification* and *understanding*, not least through providing concepts that help describing and explaining problems, situations, and associations” (2011, p. 65); further, the “next step . . . is also important: to explore, explain, articulate possible *alternative solutions* with different consequences” (p. 98). Or, as thematised in Schwab: “The eclectic art is art by which . . . we discover and take practical account of the distortions and limited perspectives that a theory imposes on its object” (1978, p. 323).

Eclecticism in this sense further advances the potential of double reflectiveness approaches for both cross-cultural and cross-theoretical exploration of educational constructions, as well as the scholarly self-constructions that they involve (Tröhler, 2014; Introduction, this volume). Thus, double reflectiveness calls for a didactic or philosophical ethos that involves the obligation to engage wholeheartedly in teaching, developmental work, or research, while always keeping in mind that other perspectives might have been taken which would probably have led to different decisions, solutions, or results.

Notes

- 1 In the didactic literature, the common English language term is ‘subject didactics’ or ‘subject matter didactics’, relating the field to the school subject. The reference terms, French ‘discipline’, German ‘Fach’, Danish and Norwegian ‘fag’, are, however, used for both academic and school disciplines as well as for other institutionalised knowledge fields. Since contemporary conceptions of the field are wider than the reference to school subjects would indicate, we consider disciplinary didactics to be a more relevant term. Cf. also Schneuwly, this volume.
- 2 This chapter is a revised and updated version of a Danish language article published in a Nordic journal (Qvortrup and Krogh, 2016) and further draws on a Danish language study book on general and disciplinary didactics (Krogh, Christensen and Qvortrup, 2016). All Danish, Norwegian, and German quotations are translated by the authors.
- 3 Currently, the Danish School of Education, Aarhus University.
- 4 In Denmark, the four-year education of primary and lower secondary teachers takes place at university colleges. The Danish School of Education at Aarhus University offers further and higher education of teacher educators. To teach at the upper secondary level, a five-year university education is needed, supplemented by a didactic in-service course, *Pædagogikum*, which for many years has been managed by the University of Southern Denmark.
- 5 Presently, the Educational Sciences unit at the Department for the Study of Culture.

- 6 According to Luhmann, ‘contingency’ concerns the condition that something is neither necessary nor impossible, but that something else may always be possible. There is, further, always the risk that the most favourable selection is not made: “Complexity [. . .] means compulsion to select, compulsion to select means contingency, and contingency means risk” (Luhmann, 2002, p. 62).

References

- Baird, J. R. and Mitchell, I. J., eds. (1986). *Improving the quality of teaching and learning: An Australian case study. The PEEL project*. Melbourne: The PEEL Group, Monash University.
- Bakhtin, M. (1986). The problem of speech genres. In: C. Emerson and M. Holquist, eds., *Speech genres and other late essays*. Austin, TX: The University of Texas Press, pp. 60–102.
- Barr, R. B. and Tagg, J. (1995). From teaching to learning: A new paradigm for undergraduate education. *Change*, 27(6), pp. 13–25.
- Biesta, G. (2012). Giving teaching back to education: Responding to the disappearance of the teacher. *Phenomenology & Practice*, 6(2), pp. 35–49. <https://doi.org/10.29173/pandpr19860>.
- Bjørgen, I. (1991). *Ansvar for egen læring* [Responsibility for one’s own learning]. Trondheim: Tapir.
- Bühler, K. (1934/1965). *Sprachtheorie* [Language theory]. Stuttgart: Fischer.
- Christensen, T. S., Elf, N., Hobel, P., Qvortrup, A. and Troelsen, S. (2018). *Didaktik i udvikling* [Didactics in development]. Aarhus: Klim.
- Foucault, M. (1984). What is enlightenment? (Was ist Aufklärung?). In: P. Rabinow, ed., *The Foucault reader*. London: Penguin Books, pp. 32–50.
- Gundem, B. B. (1998). *Skolens oppgave og indhold: En studiebog i didaktikk* [The task and content of schooling: A study book in didactics]. Oslo: Scandinavian University Press.
- Gundem, B. B. (2000). Understanding European didactics. In: B. M. Ben-Peretz, S. Brown and B. Moon, eds., *Routledge international companion to education*. London and New York: Routledge, pp. 235–262.
- Gundem, B. B. (2011). *Europeisk didaktik: Tænkning og viden* [European didactics: Thinking and knowledge]. Oslo: Scandinavian University Press.
- Hamilton, D. (1998). Didaktik, deliberation, reflection. In: B. B. Gundem and S. Hopmann, eds., *Didaktik and/or curriculum: An international dialogue*. Bern: Peter Lang, pp. 79–87.
- Hansen, J. J. (2006). *Mellem design og didaktik: Om digitale læremidler i skolen* [Between design and didactics: On digital textbooks in the school]. PhD. Odense: University of Southern Denmark.
- Hastrup, K. (1999). *Viljen til viden: En humanistisk grundbog* [The will to knowledge: A humanistic textbook]. Copenhagen: Gyldendal.
- Hattie, J. (2009). *Visible learning: A synthesis of over 800 meta analyses relating to achievement*. London and New York: Routledge.
- Helmke, A. (2009). *Unterrichtsqualität und Lehrerprofessionalität: Diagnose, Evaluation und Verbesserung des Unterrichts* [Instructional quality and teacher professionalism: Diagnosis, evaluation, and the improvement of instruction]. Hannover: Friedrich Verlag GmbH.
- Holmberg, P., Krogh, E., Nordenstam, A., Penne, S., Skarstein, D., Skyggebjerg, A. K., Tainio, L. and Heilä-Ylikallio, R. (2019). On the emergence of the L1 research field: A comparative study of PhD abstracts in the Nordic countries 2000–2017. *L1-Educational Studies in Language and Literature*, 19, pp. 1–27. <https://doi.org/10.17239/L1ESLL-2019.19.01.05>.
- Hopmann, S. (2007). Restrained teaching: The common core of Didaktik. *European Educational Research Journal*, 6(2), pp. 109–124. <https://doi.org/10.2304/eeerj.2007.6.2.109>.

- Hopmann, S. and Gundem, B. B. (1998). Didaktik meets curriculum: Towards a new agenda. In: B. B. Gundem and S. Hopmann, eds., *Didaktik and/or curriculum: An international dialogue*. Bern: Peter Lang, pp. 331–354.
- Hudson, B. and Meyer, M., eds. (2011). *Beyond fragmentation: Didactics, learning and teaching in Europe*. Leverkusen Opladen: Barbara Budrich.
- Imsen, G. (2006). Allmenn didaktikk og fagdidaktikk: Mellom dannelse og utdanningspolitikk [General didactics and disciplinary didactics: Between Bildung and educational policy]. In: S. Ongstad, ed., *Fag og didaktikk i lærerutdanning: Kunnskap i grenseland* [Subjects and didactics in teacher education: Knowledge in a borderland]. Oslo: Scandinavian University Press, pp. 243–257.
- Keiding, T. B. and Qvortrup, A. (2014). *Systemteori og didaktik* [Systems theory and didactics]. Copenhagen: Hans Reitzel.
- Krogh, E. (2006). Danskfaget i moderniteten [Subject Danish in modernity]. In: S. Ongstad, ed., *Fag og didaktikk i lærerutdanning: Kunnskap i grenseland* [Subjects and didactics in teacher education: Knowledge in a borderland]. Oslo: Scandinavian University Press, pp. 125–145.
- Krogh, E. (2009). Fagdidaktisk forskning, udvikling og praksis i de gymnasiale uddannelser [Disciplinary-didactic research, development, and practice in upper secondary education]. *Gymnasiepædagogik*, 72, pp. 11–30. Available at: www.sdu.dk/-/media/files/om_sdu/institutter/ikv/formidling/gymnasiep%C3%A6dagogik/gymnasiepædagogik/72.pdf [Accessed 23 May 2020].
- Krogh, E. (2017). Fagdidaktik [Disciplinary didactics]. In: J. Dolin, G. H. Ingerslev and H. S. Jørgensen, eds., *Gymnasiepædagogik: En grundbog* [Upper secondary didactics: A study book], 3rd ed. Copenhagen: Hans Reitzel, pp. 561–576.
- Krogh, E., Christensen, T. S. and Qvortrup, A. (2016). *Almendidaktik og fagdidaktik* [General didactics and disciplinary didactics]. Frederiksberg: Frydenlund.
- Künzli, R. (2002). The common frame and the places of Didaktik. In: I. Westbury, S. Hopmann and K. Riquarts, eds., *Teaching as reflective practice: The German Didaktik tradition*. Mahwah: Lawrence Erlbaum Associates, pp. 63–84.
- Ligozat, F. and Almqvist, J. (2018). Conceptual frameworks in didactics – Learning and teaching: Trends, evolutions and comparative challenges. *European Educational Research Journal*, 17(1), pp. 3–16. <https://doi.org/10.1177/1474904117746720>.
- Luhmann, N. (2002). *Risk: A sociological theory*. New York: Taylor and Francis.
- Luhmann, N. (2006). *Samfundets uddannelsessystem* [The educational system of the society]. Copenhagen: Hans Reitzel.
- Luhmann, N. and Schorr, K. E. (1982). *Zwischen Technologie und Selbstreferenz: Fragen an die Pädagogik* [Between technology and self-reference: Questions to pedagogy]. Frankfurt am Main: Suhrkamp.
- Meyer, H. (2004). *Was ist guter Unterricht?* [What is good instruction?]. Berlin: Scriptor.
- Niss, M. A. (1997). Fagdidaktiske problemstillinger: Hvad kan fagdidaktik være? [Disciplinary didactic issues: What may disciplinary didactics be?]. In: *Fagdidaktikrapport* [Report on disciplinary didactics]. Copenhagen: Ministry of Education, pp. 11–33.
- Nordenbo, S. E. (1983). Wolfgang Klafki: Fra åndsvidenskabelig til kritisk-konstruktiv pædagogik [Wolfgang Klafki: From humanistic to critical-constructive pedagogy]. In: W. Klafki, ed., *Kategorial dannelse og kritisk-konstruktiv pædagogik: Udvalgte artikler* [Categorical Bildung and critical-constructive pedagogy: Selected articles]. Odense: Nyt Nordisk Forlag Arnold Busck, pp. 9–32.
- Ongstad, S. (2002). Positioning early research on writing in Norway. *Written Communication*, 19(3), pp. 345–381. <https://doi.org/10.1177/074108802237749>.

- Ongstad, S. (2004). *Språk, kommunikasjon og didaktikk: Norsk som flerfaglig og fagdidaktisk ressurs* [Language, communication and didactics: Norwegian as interdisciplinary and disciplinary didactic resource]. Oslo: Fagbokforlaget.
- Ongstad, S. (2006). Fag i endring: Om didaktisering av kunnskap [Subjects in transformation: On the didactisation of knowledge]. In: S. Ongstad, ed., *Fag og didaktikk i lærerutdanning: Kunnskap i grenseland* [Subjects and didactics in teacher education: Knowledge in a borderland]. Oslo: Scandinavian University Press, pp. 19–60.
- Qvortrup, A. (2018). Dialogen mellem almindidaktik og fagdidaktik: Komplementaritet og eklektisisme som didaktiske kernebegreber [The dialogue between general didactics and disciplinary didactics: Complementarity and eclecticism as didactic core concepts]. In: T. S. Christensen, N. Elf, P. Hobel, A. Qvortrup and S. Troelsen, eds., *Didaktik i udvikling* [Didactics on the move]. Aarhus: Klim, pp. 29–43.
- Qvortrup, A. and Keiding, T. B. (2014). Undervisningens vidensdomæner: Erfaring, didaktik og uddannelsesvidenskab [The knowledge domains of teaching: Experience, didactics and educational science]. *Dansk Universitetspædagogisk Tidsskrift* [Danish Journal of University Pedagogy], 9(17), pp. 6–19. Available at: <https://tidsskrift.dk/dut/article/view/18154/15866> [Accessed 23 May 2020].
- Qvortrup, A. and Keiding, T. B. (2016). The mistake to mistake learning theory for didactics. In: A. Qvortrup, M. Wiberg, G. Christensen and M. Hansbøl, eds., *On the definition of learning*. Odense: University Press of Southern Denmark, pp. 163–187.
- Qvortrup, A. and Krogh, E. (2016). Mod laboratorier for sammenlignende didaktik: Almindidaktik og fagdidaktik i det danske uddannelseslandskab [Towards laboratories of comparative didactics: General didactics and disciplinary didactics in the Danish educational landscape]. *NoAD, Nordisk Tidsskrift för allmändidaktikk*, 1(1), pp. 21–42.
- Qvortrup, L. (2004). *Det vidende samfund* [The society of knowing]. Copenhagen: Unge Pædagoger.
- Rasmussen, J. (2004). *Undervisning i det refleksivt moderne* [Teaching in reflexive modernity]. Copenhagen: Hans Reitzel.
- Schmidt, L.-H. (1999). *Diagnosis I-III*. Copenhagen: Danmarks Pædagogiske Institut [Danish Pedagogical Institute].
- Schnack, K., ed. (1993). *Fagdidaktik og almindidaktik* [Disciplinary didactics and general didactics]. Didaktiske Studier, 5. Copenhagen: Danmarks Lærerhøjskole [Danish School of Education].
- Schneuwly, B. (2011). Subject didactics: An academic field related to the teacher profession and teacher education. In: B. Hudson and M. A. Meyer, eds., *Beyond fragmentation: Didactics, learning and teaching in Europe*. Opladen and Farmington Hills, MI: Barbara Budrich, pp. 275–286.
- Schwab, J. J. (1978). The practical: Arts of eclectic. In: I. Westbury and N. J. Wilkof, eds., *Science, curriculum, and liberal education: Selected essays*. Chicago, IL: University of Chicago Press, pp. 322–364.
- Telhaug, A. O., Mediås, O. A. and Aasen, P. (2006). The Nordic model in education: Education as part of the political system in the last 50 years. *Scandinavian Journal of Educational Research*, 50(3), pp. 245–283. <https://doi.org/10.1080/00313830600743274>.
- Tröhler, D. (2014). International curriculum research: Why and how? In: W. Pinar, ed., *International handbook of curriculum research*, 2nd ed. New York and London: Routledge, pp. 60–66.
- von Oettingen, A. (2010). *Almen pædagogik: Pædagogikkens grundlæggende spørgsmål* [General pedagogy: The basic questions of pedagogy]. Copenhagen: Gyldendal.