Constructing professionalism in teacher education. Analytical tools from a comparative study

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ABSTRACT
This article studies the meaning of professionalism in current attempts to professionalise teachers by means of education. The point of departure for our analysis is a small-scale survey among Swedish and German student teachers on their perception of the meaning of professionalism with regard to teachers’ work. The article presents two contrasting ideal types of professionalism identified in this data: the concept of science-based professionalism is characterised by an ambition to develop theories that can be translated into more or less-direct prescriptions for the efficient exercise of the profession; the concept of pedagogic professionalism, in contrast, originates in basic mistrust of this ambition concerning teachers’ work and instead aims to develop a thorough understanding of the paradoxes and antinomies of education. The article outlines the theoretical foundations of these ideal types and shows how they can shed light on the aims of educational research in different contexts, as well as help explain the rationale behind structural differences in the design of teacher education programmes.

KEYWORDS
Professionalisation; professionalism; teacher education

Initiatives to improve teachers’ “professionalism” and thus the “quality” of teaching and finally pupils’ “learning outcomes” can be observed in most European countries as well as other western nations (Darling-Hammond & Lieberman, 2012; OECD, 2009). Foss Lindblad and Lindblad have termed this trend “the professionalising talk about teachers” and linked it to the idea of a global knowledge economy (Foss Lindblad & Lindblad, 2009). According to this idea, education is the most central precondition for the future competitiveness and success of both individuals and states. Teachers are coming to the fore as key contributors to economic growth, which explains the increasing attention given to their professional development. (Lilja, 2014; Seddon, Ozga, & Levin, 2013) The hope of greater effectiveness through teachers’ professionalisation is not, however, limited to economic interests. It includes all sorts of optimisation ambitions, concerning humanistic values such as students’ empowerment, social cohesion as well as the strengthening of democratic institutions (Beach, 2011; Englund & Solbrekke, 2015; Thornberg, 2008; Willemse, Ten Dam, Geijsel, van Wessum, & Volman, 2015).
The great sense of unity concerning the importance of teachers’ professionalism must not, however, be interpreted as if professionalism was a universal value. In fact, the notion of professionalism varies between different contexts, sometimes in very fundamental ways (Beck, 2009; Beck & Young, 2005; Goodson & Hargreaves, 1996; Kuhlee & Winch, 2017; Sachs, 2001). The aim of this article is to shed light on the range of interpretations contained within the global attempt to professionalise teachers through teacher education.

The idea of this study grew out of discussions between the authors concerning our experiences as teacher educators in Sweden and Germany. What attracted our attention was the striking differences between the programmes that we had participated in as educators. In Sweden, teacher education programmes are typically structured as a series of compulsory courses, some combining in-service training with theoretical reflection. Large cohorts of students progress through the programmes together, all of them attending the same lectures and participating in similarly organised seminar activities. Strong faith in the options for planning, together with an emphasis on equality, leaves individual teachers and students with little scope for influencing the form and content of the courses to which they contribute. This contrasts with how teacher education is usually organised in Germany, where academic studies up to master level are followed by between one and two years of practical training. In the academic part of teacher education, compulsory courses are combined with a selection of optional courses for students from different semesters to choose from. Although reform initiatives like the Bologna reform have also had a similar impact in Germany, there seems to be greater academic freedom for both individual teachers and students there, in comparison to our experiences from Sweden.

In our discussions, we related these differences to differences at the conceptual level concerning what constitutes a professional teacher. Both types of teacher education aimed to educate professional teachers, but they obviously followed different rationales when pursuing this goal. In order to obtain a clearer view of these rationales we collected data at several levels: we asked students about their conception of professionalism, and we studied the theories of professionalism conveyed in their courses. As we will demonstrate in the last, empirical section of this article, the concepts identified in this material are also reflected in policy documents, the administrative structure of teacher education programmes, and the micro-level of how individual lectures and seminars are organised – which is where our reflections initially started from.

Our empirical material concerns three different teacher education programmes: the teacher education programme at the University of Gothenburg in Sweden, and the teacher education programmes at the universities of Dresden and Halle, both located in Germany. We studied the teacher education programmes of these particular universities because of the way in which they seemed to exemplify two distinct ideal types of professionalism. In what follows, we will attempt to show that the University of Gothenburg has what we will call science-based teacher education, in the sense that educational research is conceptualised there as a provider of guidelines for efficient action. This approach will be contrasted with that of the teacher education programmes in Halle and Dresden. We will say that these teacher education programmes, in contrast to the one in Gothenburg, follow a rationale of pedagogic professionalism, a typical characteristic of which is that researchers refrain from providing guidelines for action.
We do not claim that all teacher education programmes in Sweden are science-based, and those in Germany follow the rationale of pedagogic professionalism. We see these ideal types rather as analytical tools which, besides obviously being applicable to particular teacher education in Sweden and Germany, might also be useful for understanding the logic of teacher education programmes, and their relation to research, in other national settings.

**A small-scale survey**

To obtain an idea of how students who had participated in teacher education at our three sites conceived of teacher professionalism, we asked students (most of them in their second year) in four randomly selected seminar sessions (two in Gothenburg, one in Halle, one in Dresden) to anonymously answer the question: “What does professionalism mean in terms of teachers’ work?” After 10 minutes the students who wished to do so handed in their answers. The material collected in this way comprises 92 answers from student teachers in Halle and Dresden and 89 answers from student teachers in Gothenburg.

In our analysis of this material, we looked for useful illustrations of our two ideal types. It turned out, however, that the students’ answers concerning the definition of professionalism were similar in many aspects: none of our informants questioned the concept or criticised it. Professionalism is positively connoted in both samples. Students from both contexts tend to compile lists of worthwhile actions when asked to define what professionalism means. They stress the importance of being well prepared and on time, of explaining complicated matters clearly and comprehensibly, and of creating a “good” learning environment. Values such as inclusion and individualisation, justice and impartiality appear in both cases. A further commonality is the emphasis on teachers’ capacity to handle stress, for example differentiating private and professional life, and their willingness to participate in lifelong learning. Student teachers in both cases also associate professionalism with teachers’ function as role models.

There were, however, some key questions where our student groups differed or even disagreed. When asked about professionalism, a large number of our Swedish informants equated this with having a teacher licence, viz. a completed teacher education degree. “Knowledge from the education” is also described as an essential foundation for professional action in the Swedish material. Similar references to formal education are absent in the German data.

Several students in our Swedish sample further stressed that professional teachers are characterised by having a common knowledge base when planning lessons, teaching and evaluating. One student even claimed that professional teachers should have a “common view on the different theories and the science that form the basis for school curricula and didactic thinking.” Professional teachers were thus described as members of a collective with a common view concerning their assignment and practices. Repeatedly, students from Gothenburg claimed that professional teachers must base their work in research rather than in personal opinions or other individual standpoints, as in the following extract:

Subject knowledge and pedagogy are anchored in research and knowledge from the education. I as a teacher do not teach pupils particular things and in a particular way only because I [underlined in the original] think that, but can explain it with support from research.
Another central point of reference in the Swedish material is the national Education Act and other policy documents which professional teachers are expected to comply with, according to our Swedish informants. For example, one student claimed that professional teachers should carry out their work “with the School Authority’s instruction always in mind”; another stressed that “everything” a professional teacher does should be “anchored in the curriculum”. Research is depicted as a technique for the professional teacher to use in order to reach the goals defined in policy documents. In the words of another student, professionalism means that the teacher plans her material/area of subject knowledge for the pupils on a scientific ground and/or one or several scientific theories. Has a distinct aim, goal and then evaluates her approach.

The image of the professional teacher reflected here resembles the idea of an expert who is updated concerning the latest scientific insights and evaluates her teaching in order to optimise her pupils’ goal attainment. Curricula are referred to as rather unambiguous assignments that can be realised with the help of research and evidence-based teaching methods. Accordingly, one student equated professionalism to:

having a mandate that requires one to act within the limits of the Education Act and curriculum. This also includes not just doing, but also questioning what he/she does in order to hone it.

In a last quote from our Swedish material, the pursuit of goal achievement is directly contrasted with critical questioning of the conditions in the educational system, curricula and other external prerequisites of schooling. Here professional teachers are claimed to aim at performing and adjusting instead of complaining (especially about things that cannot be influenced anyway).

To summarise, the answers we collected in Gothenburg typically refer to professionalism in terms of systematic achievement of predefined goals. According to our Swedish student teachers, professionals are expected to have faith in science, technology and standardisation and to fulfil the political directives articulated in curricula and other policy documents (cf. Lundin, Dodillet, & Storck Christensen, 2018).

In contrast to the repeated recourse to science, research and policy documents in our Swedish example, several of our German students claimed that professional teachers rely on their own personality and power of judgement. These students argued that professional teachers “must not lose their individual character” when teaching or creating a “good” learning environment. In a particularly especially comprehensive answer, a German student equated professionalism with a high degree of self-competence! Organisation. Reflection. Perhaps it means acting out of conviction in a way that one finds appropriate and authentic, and yet never regarding one’s own work as static and manifest. Professionalism needs dynamism. Knowledge about ambivalences, self-confidence, philanthropic thinking.

In comparison with our Swedish example, the association of professionalism with the fulfilment of education acts or other policy documents is much less significant in the German surveys. Instead, a professional teacher is more often expected to find her own
way of coping with the contradictions and contradictory claims that are described as part of teachers’ work experience. The students in this sample mentioned the tension between “distance and closeness”, between “teachers’ authority” and their “friendly contact with pupils”, and between curricular contents and individual needs or problems. Some claimed that professional teachers are able to balance these antinomies, while others declared these paradoxes to be unsolvable. Another peculiarity of our German sample is the equation of professionalism with the ability to “acknowledge one’s own mistakes”. In this quote, it is stated as a precondition that professional teachers at least sometimes do fail. Failures are thus made part of teachers’ professionalism. They appear as normal and quite unproblematic as long as teachers are aware of their own imperfection.

To summarise, student teachers in our German case more frequently expect professional teachers to reflect and only do what they themselves firmly believe to be appropriate. They are expected to have faith, not in science but rather in themselves as professionals. In Halle and Dresden, students did not mention research very often, and in particular, research was not highlighted as a technique for professional teachers to adapt to. These students related professionalism to the sometimes hopeless endeavour of navigating through the complexity characterising the education system.

**Theoretical approaches towards professionalism**

In this section, we will begin to chisel out the logics of professionalism inherent in our survey results by relating them to different theoretical approaches: the theory of professions as science-based occupations in the case of Sweden, and the concept of pedagogic professionalism in the case of Germany. This analysis was guided by the course literature used at our three sites. The teacher education in Gothenburg includes a compulsory course specifically focused on professionalism. It is called “The Teaching Profession and Theory and Methods of Science for Teachers” and exists in several versions for student teachers for all types of schools from kindergarten to upper secondary school. The theory of professionalism conveyed by these courses is based on Thomas Brante’s work on science-based professionalism. In the case of pedagogic professionalism, a key researcher is Werner Helsper, who is a lecturer at the University of Halle. References to his work are common in the introductory courses on pedagogy in both Halle and Dresden.

To some extent, our distinction between these two approaches is similar to how Goodson & Hargreaves distinguish between, on the one hand, neo-classical theories on professionalism underlining the importance of a common, professional knowledge base for teachers to adapt to, and on the other postmodern approaches that describe teaching as a professional task too complex for general solutions (1996). There are also similarities between our distinction and that of Englund & Solbøkke, who analyse the difference between professionalisation theories that relate the teaching profession to a general concept of professionality, often in order to define or secure its status, and approaches highlighting the specifics of teachers’ professionalism (2015; cf. Hoyle, 1980). To highlight the specificity of the analysis conducted here, we will return to these distinctions.
Professions as science-based occupations

In sociological research the concept of professions is often used to distinguish expert occupations that “apply somewhat abstract knowledge to particular cases” (Abbott 1988, p. 8) from other occupations. The concept has its origin in theories about the transition from industrialism to post-industrial societies during the 20th century. According to this research, the character of occupations changed in parallel with the society, and a “professional sphere” emerged (Durkheim, 1992). Exactly what characterises this new sphere is a matter of contention among sociologists with different perceptions of modern society. Sometimes the professions are described as the avant-garde of the “knowledge society”, and are said to account for the most important innovations in areas like technology, health, organisation, economics and science (Bell, 1973). The concept then relates to human capital theory according to which the development of modern societies relies on well-educated experts as engines of societal and economic growth. Professions are further categorised as occupations dealing with the uncertainties of modern lives in what are referred to as “risk societies” (Evett, 2003, p. 396f). Thomas Brante, probably the most influential Swedish theorist on professions and professionalisation, combined these approaches when he characterised professionals as “heroes”, who with help of their expert knowledge and a mixture of technology and routine “defeat what is unknown for the client” (Brante, 2009, p. 27). Here, professionals seem to be able to reduce risks and to shape a well-organised, rational, effective and secure society.

When the Nordic Network of Researchers in the Study of Professions (NORDPRO) founded its journal Professions & Professionalism in 2011, Thomas Brante was entrusted with introducing his theory as a starting point for further research on professions and professionalism in the journal’s first article. There he claims that professions distinguish themselves from other occupations through a shared scientific knowledge base.

A profession obtains its status from a central base, that it is a truth regime. Because of its scientific base, a profession is the ultimate link to ‘truth’; there is no higher authority. This and only this is what makes professions unique. (Brante, 2011, p. 19)

In the main part of his article, Brante expounds his understanding of the relation between scientific theory and professional practice, or what he calls “the dialectic between know-why and know-how, based on the shared platform of science and profession” (Brante, 2011, p. 14). According to this concept, scientists and professionals follow the joint task of improving society and making it more efficient and successful concerning the collective aims and goals determined by society in a democratic process of consensus finding. In order to accomplish their mission, scientists and professionals together create ontological models or theories for understanding and improving their area of expertise. Theory and practice are thus closely intertwined in this concept.

Concerning the teaching profession, the democratically defined goals vary between knowledge acquisition for the improvement of PISA results and general societal aims such as democracy or “social justice for the community as a whole” (Goodson & Hargreaves 1996, p. 9). Reading Goodson and Hargreaves, the impression may be gained that science-based professionalism mainly concerns cognitive learning outcomes. Treating Lee Shulman’s (1986, 1987) elaboration of pedagogic content
knowledge as a representative example of “a new scientific knowledge base for teaching”, they convey the impression that teachers’ moral and emotional competences are rarely subject to scientific models or recommendations (Goodson & Hargreaves 1996, p. 9). We agree that Shulman is to be described as a leading international figure concerning teachers’ professionalisation through science-based methods. Another prominent representative aiming for improved learning outcomes is John Hattie (2008). In the Swedish context, Ingrid Carlgren distinguishes her call for more clinical educational research from Hattie’s recommendations. In her version of science-based professionalism, researchers should respond to teachers’ questions rather than political requests to improve teachers’ effectiveness (Carlgren, 2012). However, Carlgren’s account also aims to develop teachers’ knowledge about the conditions enabling students to reach pre-defined learning outcomes. According to her, educational research should provide teachers with “knowledge about the nature of the abilities that pupils ought to develop in different content areas – as well as knowledge of the conditions that enable the development of such abilities” (Carlgren, 2010, p. 304). In addition to these attempts to improve students’ learning outcomes, there are examples of science-based recommendations concerning ethical and general societal aims such as equity, solidarity, gender equality and democracy.

In Sweden, an entire scientific field (utbildningsvetenskap) was established as part of a research policy initiative to create a scientific base for teacher education and educational working life including moral and emotional aspects (SOU 1999:63, pp. 255–277). The implementation of this field as one of five areas of funding by the Swedish Research Council was literally justified as a strategy to strengthen the identity of educational personnel concerning “a common knowledge base, common ethical principles and a common professional language” (SOU 1999:63, p. 263). Even critics of this initiative seldom question the need for science-based, ethical principles for education. Dennis Beach, a prominent Swedish defender of the specialised scientific practices and language of pedagogy, refers not only to Thomas Brante, but also to concepts such as “productive pedagogy” (Gore, Griffiths, & Ladvig, 2004) and “powerful teaching” (Darling-Hammond, 2006), when he claims the importance of

a robust system of concepts […] that can be used by teachers and student teachers to help them describe, model and theorise from empirical situations less shackled by social and political steering and constraint, in a way that helps them to understand and speak collectively about what good education is and how it might be affected by proposed and ongoing political, ideological and economic changes […]. (Beach, 2011, p. 214)

Beach understands pedagogy as a value system or “rational whole” to defend educational goals such as “integration, independent learning and the development of a democratic foundation for a broader concept of education for all” against external threats such as “ideas about entrepreneurial attitudes and personal responsibility” (Beach, 2011, p. 217f).

Other prominent educational researchers, who probably would not characterise their work as serving the idea of science-based professionalism, but who we include in our wider definition of the concept as they try to provide guidelines for teaching, are Englund and Solbrekke (2015). Despite the fact that they question the concept of a
common scientific knowledge base as the general prerequisite for professionalism, for example when they claim that teachers’ professionalism requires “increased opportunity and responsibility to exercise discretionary judgment over the issues of teaching, curriculum and care that affect one’s students” (Goodson & Hargreaves 1996, p. 20 cited in Englund & Solbøkke, 2015, p. 172). Englund & Solbøkke’s scholarly work nonetheless culminates in explicit methodological recommendations for students’ education in relation to democracy, and thus complies with the notion of teachers in need of science-based methods. More precisely, Englund & Solbøkke recommend the concept of deliberative communication as an educational tool to develop student teachers’ professional discernment and “ambition to obtain collective decision-making” (p. 183f.). Englund developed this concept with reference to John Dewey, whose work he describes as “important guidance for the development of forms of communication that strengthen the moral and social quality of conduct and, in the long run, democracy” (Englund, 2016, p. 59).

In Germany, research under the label of empirical educational science (empirische Bildungsforschung) in particular shares the aspiration of improving teachers’ professionalism, making it essentially different from educational studies lacking or even questioning the ambition to generate methods for professional optimisation.

As Brante declares, professionals’ science-based know-how constitutes an “epistemological break with spontaneous thinking” about a given phenomenon (Brante, 2011, p. 7). According to his definition, the expertise of professionals does not concern given objects but must be constructed as “an independent, autonomous area of knowledge” and be “provided with a depth” comprising “an empirical surface and underlying structures and causal mechanisms”. (Ibid). In order to construct an object of expertise, professionals need to cooperate with scientists in creating models for their professional field.

The models forming the basis of science-based professional practices can be described as positivist in so far as they comprise two ontological levels: an observable surface or the “empirical level” and a theory or level of structures and “basic causal mechanisms” that explain what happens on the surface. According to this concept, scientific models and theories enable professional practitioners to classify and categorise their field of competence and to develop effective interventions and treatment (Brante, 2011, p. 10f). Brante calls the idea that structures and mechanisms explain surface phenomena a “fact” and states that this “fact” is valid not only for natural sciences and technology but also for parts of the social sciences, including education.

The scientific base for professional practice of this kind can further be characterised as applied science (Brante, 2011, p. 10). Professional practitioners are, according to Brante, not only “familiar with recent scientific theory and observation”, but also cooperate with scientists in continuously refining the models guiding their work. According to Brante, exchange between practitioners and scientists is essential for both sides, as the quality of their models depends on being “developed, modified and sometimes rejected by input from both sides, that is, the scientific/theoretical and the professional/applied side” (Brante, 2011, p. 15). Science and practice function according to compatible criteria, Brante further states and illustrates: they “meet in a shared image of subject matter, a shared view of basic causal mechanisms” (Brante, 2011, p. 15).
The concept of professionalism as “effective, science-based know-how” (Brante, 2011, p. 16) has certain implications for the education of professionals. In order to fit this type of professionalism, education must convey a joint goal and mission, up-to-date research, and methods for evaluation. Later in this article we use our Swedish example to further outline what this concept can look like when implemented in a teacher education programme. We wish to draw attention here to the not so self-evident fact that Brante explicitly includes teachers in his definition of professionals.

According to Brante, professional teachers build on “effective, science-based know-how”. They are classroom managers, able to plan and control the learning of others. According to this logic, missing progress in students’ knowledge development can be traced back either to a lack of teaching professionalism that can be fixed through further education, or to external circumstances “lacerating the structure, thereby rendering the proper functioning of the mechanism/intervention difficult” (Brante, 2011, p. 16). In none of these cases does Brante see any need to question the basic premise, that it is possible for professional teachers to plan and control learning. It is made the responsibility of other professions, such as sociologists (keeping economisation at bay) and psychologists (dealing with “impossible” pupils by means of medication) to keep the influence of external circumstances at bay. When every profession performs its tasks, there are no disturbing contexts. Then, “the normal mechanisms of individuals can again operate in satisfactory manners” and professional teachers can manage their tasks (Brante, 2011, p. 16). It is precisely this trust in the ability of professional teachers to “be aware of, and knowledgeable about, the consequences of different choices of content and methods” (Englund, 1996, p. 83), and to thus control the effects of teaching, that is questioned by the approach towards teachers’ professionalism, which we come to now.

**Theories on the antinomies of teachers’ pedagogic professionalism**

One of the most influential approaches in the current German debate on pedagogic professionalism is the *strukturtheoretischer Ansatz* (Helsper, 1996; Oevermann, 1996). This emanates from the observation that the work tasks and professional requirements of teachers are “contradictory in themselves” (Kuhlee & Winch, 2017, p. 240). Accordingly, teachers are faced with a complicated combination of insoluble tasks and duties. The main task of this approach is to describe and reconstruct these structural problems of the teaching profession. The *strukturtheoretischer Ansatz* also includes an ambition to improve the handling of these paradoxical tasks. In contrast to science-based professionalism, this improvement does not opt for scientific recommendations for accomplishing certain goals, but for training teachers’ capacity to critically reflect on their individual actions and their limits. This approach is the subject of controversy (Baumert & Kunter, 2006) and has initiated an ongoing debate (Helsper & Tippelt, 2011).

Empirically, the concept of pedagogic professionalism is based on historically informed and theoretically grounded reconstructions of teachers’ habitus, actions and working life. Ideologically the concept originates in critical analyses of the increasing integration of teachers’ work into “the state”, viz. the introduction and expansion of compulsory schooling (Bernfeld, 1925; Lenhardt, 1984; Rumpf, 1966). According to this critique, the bureaucratic function of schooling contradicts the
nature of pedagogic relations. The concept of pedagogic professionalism secondly elaborates on Luhmann and Schorrs’ thesis on the gap between theory and practice in education (1979). Researchers in this tradition stress that education is also in itself characterised by a wide variety of paradoxes and uncertainties (Helsper, 1996). In contrast to Brante’s idea of science-based professionalism, the concept of teachers’ pedagogic professionalism is not about the development of routines to diminish risks and to fulfill a public service, but about recognising the impenetrable complexity of education, or with Oevermann, about “declaring the crises to be the normal case” (Oevermann, 2008, p. 57).

In order to distinguish the character of pedagogic professionalism, researchers have compiled lists. These lists do not, however, comprise general characteristics valid for all professional groups, nor do they distinguish between professional and non-professional teachers. Instead, they focus on the specificities of the working life and practices of teachers in general. Some lists outline the paradoxes concerning the organisation of education in schools (Oevermann, 1996; Schütze, 1996). These include teachers’ limited scope of action in the controlling administrative and abstract bureaucratic organisation of schools, for example the tension between schooling on the one hand as an instrument for professional work, and on the other as an organisation to control and put pressure on professionals to act according to external efficiency criteria; the tension between the distribution of tasks to different professions in the school (subject teachers, special-needs teachers, psychologists, social education workers, etc.), and the holistic support of educational processes; and the tension between general curricula and the development of individual students. Others focus on the antinomies characterising the educational project as such, for example the antinomy between closeness and distance fundamental for the relation between educators and pupils (Helsper, 1996).

Comparing the impact of these two approaches, Helsper states that the school critical approach has been pushed back since the 1970s, when the idea that bureaucratic formalities encroach on the work of professional teachers was put into perspective through the emergence of neoinstitutionalist theories on the loose-coupling between the formal structure of organisations and their actual activities (Helsper, 2008, p. 115; see also Wenzel, 2008). Today, the necessity of institutionalised education and curricula is seldom questioned in theories on pedagogic professionalism. Schirlbauer points out that educational illusions are actually needed to make everybody participate in education, at the same time as they fail to deliver on their promises (Schirlbauer, 2005). This approach, however, questions the feasibility of bureaucratic regulation, and thus implies that it is necessary for teachers to have some distance from the regulations that frame their work. Whereas professionalism according to Brante’s theory of science-based professionalism depends on the existence of a general model to handle a given problem, theories of pedagogic professionalism are about understanding the illusionary character of such models. The task of teachers is not to use research in order to literally implement policy objectives, but to interpret societal expectations in order to develop individual strategies to cope with their impracticability.

Pedagogic professionalism further ascribes a different task to schools than the concept of science-based professionalism does. Pedagogic professionalism is not about reaching predefined learning outcomes (be it PISA results or democratic behaviour), but about pupils’ and students’ Bildung, maturity, independence, emancipation and
autonomy. Oevermann distinguishes between learning and Bildung and explains that learning is “nothing other than a routine event [Routineveranstaltung], where standardised knowledge is appropriated as such” (Oevermann, 2008, p. 59). He further explains that learning thus has nothing to do with professionalism: “the teachers would not need to be professionals and not be professionalised, if they virtually were agencies of knowledge facilitation.” (Ibid.). According to this account, Bildung is the opposite of learning and routine. Of course, Oevermann explains, “learning is a necessary component of Bildung, but Bildung is much more than learning.” (Ibid.)

In order to support pupils’ Bildung, pedagogic professionalism calls upon teachers to consider each individual case to be unique and to interpret emerging risks with and for the adolescents. The quality of this interaction is based on teachers’ critical reflection about their educational routines and scripts, in order to keep them open to transformation and to enable new, unusual ideas (Helsper, 2002, p. 70). While professional teachers ideally are self-confident according to the theory of science-based professionalism, teachers should be self-critical according to the idea of pedagogic professionalism. “Unlike the layperson, who normally believes he knows who the singular other is and what to do how, the professional educator must know that he does not know and cannot know.” (Wimmer, 1996, p. 431) Helsper further differentiates this “knowledge about unknowingness” and “knowledge about not being able to know” into professionals’ knowledge about the unintended side-effects of teaching, knowledge about the generation of new risks for their clients and knowledge about the fact that it is just the attempt to evade uncertainty that provokes its undetectable increase (Helsper, 2002, p. 81).

While Brante stressed the close link of theory and practice in order to generate models for professional action, the proponents of pedagogic professionalism refer to the difference between theory and practice as the “practice antinomy” of education (Helsper, 2002, p. 69). By that they mean the antinomy between, on the one hand, requirements of decision-making, and on the other the obligation to justify one’s actions, which occurs when teachers need to make decisions even where “scientists are at their wits’ end’ (Vanderstraeten, 2008, p. 102). The “practice antinomy is also present in the contradiction between reconstruction and subsumption, as teachers in the classroom need to rely on subsumptive explanations at the same time as having to be sceptical about such explanations when handling individual cases. The aim of education (Bildung) itself also contradicts the ideal of strategic and systematic teaching as it requires the reflexivity and decisions of the students” themselves, as Wenzel points out (2008, p. 33f), and Vanderstraeten summarises:

In general it can be said that professional work concerning the treatment and change of persons has its problem less in the application of high-quality knowledge than in the limitations of the applicability of such knowledge in complex, case-varying and therefore hardly standardisable work situations, under time pressure and dependent on the cooperation of the object. (Vanderstraeten, 2008, p. 102)

The gap between theory and practice does not, however, mean that pedagogic professionalism can do without theoretical knowledge. “Professions must use proven knowledge to solve problems”, Oevermann stresses (2008, p. 58). Theoretical knowledge, however, should not be used “ingenieurially”, he further argues. Pedagogic professionalism is neither
about determining nor about predicting their outcome, but about analysing the complexity of educational situations. Here, theoretical knowledge does not imply guidelines for specific teaching methods, but facilitates teachers’ interpreting, clarifying, advisory and therapeutic interactions with their clients (Oevermann, 2008, p. 58).

**Science-based professionalism and pedagogic professionalism in two teacher education programmes**

So far we have identified two concepts of professionalism in students’ perceptions of their future work and elaborated the representation of these concepts in educational research. In this section we aim to demonstrate the explanatory value of these concepts in analyses of the rationales of education programmes. Again, we use the teacher education programmes at the universities of Gothenburg, Dresden and Halle as examples. Before we come to these local policies, however, we will say a few words about their international and national contexts.

During the last few decades, the concept of science-based professionalism has captured a significant position in the international discourse concerning higher education. Most prominently, the Bologna Protocol promotes effective teaching through elaborated educational concepts and standards. The 29 countries that have signed the Protocol since 1999 have formally committed themselves to base their teacher education programmes on the theory of constructive alignment underlying the treaty (Biggs, 1996). According to this theory, effective learning requires clearly defined learning outcomes for teachers to adapt to. Professional teachers are called to align their teaching to explicit aims in order to ensure their successful achievement. Obviously, this concept contradicts the notion of pedagogic professionalism, questioning the predictability of education and striving to higher aims than “just learning”.

**Professionalism at a national policy level**

In response to the Protocol, both Sweden and Germany have reformed their teacher education in various steps since the 2000s (KMK, 2004; SOU 2008:109). In Sweden, the restructuring has been guided by the national government, which condenses its statutory specifications for teacher education in an annex of its Higher Education Ordinance (Högskoleförordningen). In the Federal Republic of Germany, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (KMK) drafted comparable guidelines that were adopted by the education ministries of the Länder in 2005/2006 (KMK, 2004). In both cases these ordinances outline the length of different teacher education programmes in credits, break these credits down into compulsory fields of study and present an overview over the competences students must acquire. Despite these similarities, the German documents at this level distinguish themselves through comparatively greater proximity to the idea of science-based professionalism.

One indicator for this difference at the level of national policies is the scope of the named documents. Capturing the education of all types of teachers from kindergarten to upper secondary school as well as adult education, the national regulations take up 12 pages in the case of Sweden. In the version by the German KMK, the guidelines concerning the education of primary, secondary and upper secondary teachers
comprise 73 pages. While the requirements listed in the Swedish document are comparatively abstract and vague, the German documents are detailed. They include an elaborated education plan specifying not only the competences required by future teachers, but also the contents they must study to develop these competences. They even suggest methodological approaches for teacher educators at the universities to use in support of this development (KMK, 2004, p. 6), whereas the German policy documents convey the impression that it is possible to design scientifically based educational programmes. The Swedish Higher Education Ordinance puts universities in charge of putting the content of their teacher education programmes into practice, and thus conveys the impression that there is not one scientifically based, best practice to reach its predefined goals, but rather individual ways of generating these outcomes.

However, even though the German regulations are more specific than the Swedish equivalents, the conclusion must not be drawn that teacher education in general is more standardised in Germany than in Sweden, with its more liberal national regulations. The KMK itself opened up the possibility of free spaces when it emphasised that its breakdown of study contents and teaching methods must not be understood as a structure for university courses, and thus leaves room for professors, other university staff and students to take responsibility for their teaching and learning (KMK, 2004). The freedom to teach is also enshrined in the German constitutional Basic Law (Art. 5 (3)). As we will show, the idea of science-based education becomes less significant during the implementation process at the universities making up our German sample, while it is the other way round in our Swedish example.

**Professionalism in local solutions**

All three universities in our study have central bodies to coordinate and monitor their teacher education programmes and to implement the legal regulations described above. The Board of Teacher Education at the University of Gothenburg (LUN), administers two types of documents to fulfil this task. The aim and structure of the secondary teacher programme is described in an education plan. This document largely follows the regulation laid down in the Higher Education Ordinance repeating its abstract formulations, but adds references to the courses forming the programme and a scheme of the order in which these courses must be studied one by one. The other type of documents administered by LUN is the course descriptions developed by what are known as programme committees comprising representatives from all departments involved in the teacher education programme. These course descriptions not only list learning outcomes, but specify which subject content, learning activities, course literature, number of credit points and forms of assessment students must pass in order to develop the competences comprising a teacher exam in Gothenburg. It is at this level that teacher educators and students at our Swedish university meet the educational concept underlying the Bologna recommendations. There are, however, even more detailed policies for university teachers and students to follow. These are provided by course leaders who elaborate course guides and recruit the teachers who finally carry out the lectures and seminar sessions specified in these manuals. We briefly illustrate this order with one of the first courses taken by students aiming to become secondary education teachers in Gothenburg.
Learning, development and didactics 1 merits 7.5 credits, corresponding to five weeks of study. According to its course guide, this course consists of 32 lectures and 8 seminar sessions. The approximately 350 students taking this course every semester are divided into 18 seminar groups, taught in parallel by different seminar leaders, closely linked to the lectures. The course guide contains instructions, for students and teachers, for what to do in each of the seminars. For instance, before seminar 6, the students are instructed to discuss questions given in the course guide, pertaining to specific pages in the course literature. The teacher is instructed to use the first half of the seminar to discuss these questions and to clarify specific concepts (listed in the course guide) pertaining to the course literature. The course guide stipulates that the second half of seminar 6 is to be devoted to discussions in smaller groups. The teacher education as a whole consists of about 35 courses, similar to the one described above, all mandatory to take in a prescribed order.

According to our interpretation this setup builds on the idea of education by means of elaborated, general concepts and thus reflects the concept of teacher educators as science-based professionals. Learning outcomes are here fulfilled by means of learning activities designed by professional educators according to principles previously conveyed in courses on higher education didactics, compulsory for university teachers to take. Its reliance on educational theory as the major structural feature distinguishes this programme from our German examples.

In Halle and Dresden, the courses are only loosely determined by assignment to modules. These modules define a more or less defined framework, which offers teachers opportunities to bring their own interests and competences into teaching. The catalogue of courses therefore varies from semester to semester. While the teachers in our Swedish case go through a uniform programme, the students have to put together their own course programme in order to fulfil the requirements defined in the examination regulations at our German universities. While the professionalism of teacher educators is determined by educational theory in Gothenburg, teachers at the universities of Halle and Dresden have greater scope for professional action. A brief glimpse of the administrative structure of the teacher education programmes in Dresden and Halle reveals how this free space has been instituted at these universities.

The Boards of Teacher Education in Dresden and Halle supervise teacher educators’ compliance with the international and national regulations mentioned above via examination regulations and a catalogue specifying not courses but study units that students must fulfil during their education. Study unit descriptions specify the “learning outcomes/competences” students must acquire in the different disciplines in order to obtain a teacher qualification, the number of credits mandatory in the unit, the expected workload in hours, formats and contents of the courses to be studied in the unit, examination requirements, prerequisites and recommended semester of study, the name of the unit coordinator and the frequency with which courses creditable for each unit are offered. Like the regulations of the KMK, study units are built on the educational theory of constructive alignment and follow the principle of science-based education. However, the structure and content of the actual courses are detached from this logic in our German examples.

Most study units forming part of teacher education in Dresden and Halle require a compulsory lecture series introducing the subject area in question, and selectable seminars where students practise, deepen their understanding or even participate in research. Some courses are more stable (this applies especially to the introductory
lectures), while seminars typically follow university teachers’ interests or even form part of a research project and are only offered for one semester. We illustrate this approach with the “module” of “school socialisation of children and adolescents” forming part of teacher education in Halle.

In the summer semester of 2017 students could choose one out of 17 seminar series to accomplish this unit, including a course on educational gender studies, a course on irony and double-bind as categories of communication in educational settings, a seminar series on the concept of subjectification in current educational philosophy and a seminar analysing assessment practices. All these seminars, their content and form were created and realised by individual teachers who present their offers in course descriptions resembling abstracts in a conference programme.

The concept of professionalism characteristic of this German example attributes a large degree of the responsibility, assumed by educational theorist in our Swedish example, to individual teachers and students. From the perspective of science-based professionalism, a structure like this, where individual teachers and students determine their own education, appears as a threat to the efficiency of teacher education as it might result in some students missing one or more of the components perceived as irreplaceable for teachers’ professionalisation according to the elaborated educational plans characteristic of this approach.

**Concluding remarks**

In this article, we have presented two theoretical approaches towards teachers’ professionalism, which we have applied to depict conceptional differences in both student teachers’ construction of their future professionalism and the design of their educational programmes. We have thus demonstrated the usability of this analytical framework for critical analysis of discourses and practices concerning teachers’ professionalism.

Some readers might interpret our study as one about the general state of teacher education programmes in Sweden and Germany. Concerning this conclusion, we are hesitant, as more systematic empirical research would be needed in order to determine whether our examples constitute expressions of such national trends. The question of whether the structure and design of the described education programmes form hidden curricula that have informed the perception of our student groups and thus constitute direct causes of the differences between students’ answers can also only be clarified by future studies. It has not been our ambition or aspiration to answer these questions, but we are content if the theoretical framework we have presented here can contribute to a clearer picture of these relations in the future.

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