Thematic Review

We all reflect, but why? A systematic review of the purposes of reflection in higher education in social and behavioral sciences

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ABSTRACT

Reflection has gained increasing attention in theory, practice and education in social and behavioral sciences. In this study, we systematically review empirical research on the concept of reflection within educational contexts in social work, psychology and teacher education to discern trends regarding the educational purposes attributed to reflection. Based on an inductive analysis of 42 relevant studies, we found that reflection is attributed diverse -and sometimes opposing-educational purposes. Furthermore, we distinguished three dimensions to which these purposes are primarily related: a personal, interpersonal and socio-structural dimension. Our findings illustrate both a conceptual and an empirical complexity and openness of reflection as an educational notion. Based on these results, we argue for the explicit articulation of the value and theoretical bases underpinning one's conceptualization of reflection when it is operationalized both in research and in practice.

1. Introduction

Reflection and related notions such as reflective practice, reflexivity, critical reflection and critical thinking have gained increasing importance across a diversity of academic disciplines. The notion of reflective practice has for example become widely accepted in health professions, such as medicine, nursing, and midwifery (for an overview see Mann, Gordon, & MacLeod, 2009) and in social professions, such as education, social work, law, and management and organization studies (for an overview see Fook, White, & Gardner, 2006). Reflection is generally regarded as being valuable for professional practice and lifelong learning (Rogers, 2001) and has been adopted in higher education training and accreditation standards in the UK and internationally (Norrie, Hammond, D'Avray, Collington, & Fook, 2012; Ryan & Ryan, 2013).

In the previous decades, the concept of reflection has been extensively researched and theorized. With regard to reflection in educational contexts, for example, *Educational Research Review* has published reviews on instructional approaches to teaching reflection or critical thinking (Kori, Pedaste, Leijen, & Mäeots, 2014; Niu, Behar-Horenstein, & Garvan, 2013), quantitative content analysis as a procedure to measure students' reflection in essays (Poldner, Simons, Wijngaards, & Van der Schaaf, 2012), the effect of reflective activities on instrumental learning in adult work-related education (Roessger, 2014), and the conceptualization of the relation between teacher reflection and teacher action within research (Marcos & Tillema, 2006).

In the current body of literature on reflection, a variety of new theoretical perspectives have been added to the original academic

sources on reflection. Moreover, new terminology has been introduced, referring to concepts such as critical reflection, reflexivity, and critical thinking (Clarà, 2015). As a consequence, the scholarship on reflection has been characterized as "a messy and complex field in which traditional disciplinary boundaries and shared criteria for academic rigor do not always apply" (Fook et al., 2006, p. 4) and the concept itself has become "unanimously recognized in the field to be ambiguous" (Clarà, 2015, p. 261). Conceptual clarity on the notion of reflection is lacking both within and across disciplines (Ecclestone, 1996; Fendler, 2003; Hatton & Smith, 1995).

The conceptual ambiguity of reflection has made its translation and operationalization into educational contexts a complex endeavor, both in practice and in research. Since the educational literature on reflection adopts a variety of theoretical approaches when addressing questions on the teaching and learning of reflection (Jay & Johnson, 2002), it is often argued that there is no systematic and coherent body of empirical evidence to inform educators' practices of teaching and assessing reflection (Collin, Karsenti, & Komis, 2013; Knight, Sperlinger, & Maltby, 2010; Wilson, 2011). Norrie et al. (2012) have specifically argued that the lack of multiprofessional research on reflection prevents the development of more systematic research on teaching reflection and of more systematic practices of judging students' reflective practices and abilities.

In addition, the wide array of theoretical and empirical approaches to teaching and learning reflection runs a risk of over-emphasizing technical and methodical questions and neglecting questions on the intended purposes or the outcomes of reflection (Smith, 2011). Biesta (2011), in this regard, problematizes the danger of instrumentalizing reflection and indicates the need to address the question why reflection is important rather than (exclusively) focusing on how it can be practiced, taught, measured or assessed. Several authors have developed similar arguments, questioning the lack of sophistication in and articulation of the theory bases informing notions of reflection (Thompson & Pascal, 2012) and emphasizing that reflection is never a neutral nor an apolitical practice (Cushion, 2016; Taylor, 2013).

Taking the previous arguments as a starting point, we decided to specifically review the teaching rationales or educational purposes evident in the empirical literature on reflection in higher education in social sciences. It is our contention that an explicit articulation of the theoretical underpinnings and intended outcomes of reflection in empirical research can benefit the further development of a systematic body of research studying reflection in education in social sciences (Smith, 2011) and provide an effective approach to engage with criticisms on the instrumental and apolitical application of the concept (Bleakley, 1999). More specifically, our aim is to review empirical research on teaching reflection in three different social care professions which represent the fields of expertise of the authors, namely teacher education, social work and psychology. In the following section, we present an overview of the main academic sources theorizing and developing the concept of reflection in each of the three disciplines involved in our study.

2. Reflection and related notions in the case of teacher education, social work and psychology

The scholarship on reflection generally refers to John Dewey as the founding father of the concept of reflection. In his seminal work 'How We Think', Dewey (1933) defines reflection as a mode of thought that is systematic and grounded in scientific inquiry. Nevertheless, its educational translation cannot be reduced to simple logical and rational problem solving procedures or "a set of techniques for teachers to use" (Zeichner & Liston, 1996, p. 9). Rather, Dewey (1993) considered reflection from a holistic perspective, recognizing it as a complex endeavor involving both intellectual and affective dimensions and requiring certain attitudes such as open-mindedness, whole-heartedness and responsibility from the reflective thinker. The notion of reflection has been further developed and popularized through Donald Schön's (1983) landmark publication 'The Reflective Practitioner' in which he develops a critique of technical rationality as the dominant epistemology of professional practice. As a response to the artificial division of theory and practice in this approach, Schön (1983) formulated the idea of reflection-in-action as a new epistemology of practice that recognizes the value of knowledge gained through everyday experience. In the following paragraphs, we give an overview of the theoretical and conceptual development of these notions in the three disciplines studied in our systematic review, respectively teacher education, social work and psychology.

Within teacher education, a variety of educational scholars have developed new, broadened and discipline-specific notions of reflection founded on the theories of Dewey and Schön. A majority of these newly developed models of reflection are based on a distinction between several levels or types of reflection, ranging from technical and practical to more critical forms of reflection (see, for example, Hatton & Smith, 1995; Jay & Johnson, 2002; Valli, 1992; Van Manen, 1977). Although scholars do not agree on whether distinctive types of reflection should be thought of as hierarchically organized, each of these models characterize critical reflection as an important and even necessary form of reflection for teachers to pursue. Critical conceptions of reflection essentially differ from reflective practice in their applications of critical social theory and critical pedagogy perspectives (Fook et al., 2006). Building on the theories of Freire and Habermas, Brookfield (1995) and Mezirow (1998) have extensively theorized the notion of critical reflection in education. Both authors emphasize the importance of broadening one's reflection from a specific problem to solve to the wider social, political, cultural and ethical contexts and implications of one's teaching. Brookfield (2009, p. 293), for example, argues that "for reflection to be considered critical, it must have as its explicit focus uncovering and challenging the power dynamics that frame practice and uncovering and challenging hegemonic assumptions". Mezirow (1998) has related the concept of critical reflection to his theory of transformational learning, arguing that processes of critical self-reflection of one's assumptions, values and beliefs may lead to the transformation of one's frame of reference.

D'Cruz, Gillingham, and Melendez (2007) note that critical conceptions of reflection are particularly evident in social work as well. According to these authors, they have been developed as a reaction to traditional ideas about reflection on practice in social work, that are grounded in predominantly positivist epistemologies and directed at distancing one's self from one's experience to develop more objective approaches to practice. The work of Fook (Fook, 2002; Pease & Fook, 1999) has been influential in the

development of critical reflection as an approach to social work practice and theory that recognizes the practice wisdom generated by practitioners as a valuable form of knowledge. Fook (2002) has furthermore combined the ideas of Schön with critical postmodern perspectives, emphasizing the analysis of professional knowledge as value-laden, socially mediated and discursively produced. In the discipline of social work, the concept of critical reflection is often used interchangeably with 'reflexivity' or 'critical reflexivity' (see, for example, Pease & Fook, 1999), which share with the former concept a critical approach to power and knowledge as socially produced and a recognition of the implications of one's individual subjectivity in research or practice.

Within the domain of psychology, the concept of reflective practice has been theorized and integrated in practice and education more slowly due to the dominance of positivist schemes within the discipline (Bennett-Levy, 2003 in Fisher, Chew, & Leow, 2015). While the debate on the relative importance of evidence-based versus more reflective approaches within psychology continues (Fago, 2009; Zeldow, 2009), reflection and related notions are gradually being implemented in psychological research and practice. For example, the notion of the reflective scientist practitioner has become increasingly accepted within clinical and sports psychology as a way to complement rational and technical decision-making with forms of practice wisdom generated through experience (Anderson, Knowles, & Gilbourne, 2004; Burgess, Rhodes, & Wilson, 2013; Wigg, Cushway, & Neal, 2011). The critical component of reflection in psychology is often discussed in terms of 'critical thinking' or 'critical reflexivity'. As regards critical thinking, different interpretations of the concept have been developed, advocating more method-centered, scientific and analytical versus more perspectival, relational and interpretive perspectives on knowledge and critique, the latter of which tend to take note of the work of authors such as Brookfield and Mezirow (Bensley, 2009; Yanchar, Slife, & Warne, 2008). Reflexivity in its turn has been theorized as an essential component of critical psychology, emphasizing that psychological knowledge is socially and politically situated (Bolam & Chamberlain, 2003; Teo, 2015).

Although distinct conceptual origins of the terms reflection, reflective practice, critical reflection, and reflexivity can be identified in all three disciplines, overview studies of Fook et al. (2006), D'Cruz, Gillingham, and Melendez (2007), and Norrie et al. (2012) have demonstrated the ambiguous application and conflation of these terms in academic literature as well as in practice. On that account, it has become tricky to assume "common meanings or assumptions within practice approaches because they share words such as 'critical', 'reflection' and 'reflexivity'", as these terms have come to designate constructs as different as "an individual practice skill to a force for social change" (D'Cruz et al. (2007), p. 84). As we have mentioned before, this systematic review aims to review the teaching rationales or educational purposes evident in the empirical literature on reflection in higher education in social sciences. In line with the recent review of empirical work on teaching reflection in the health and social care professions of Norrie et al. (2012), we include research on reflection, reflective practice, critical reflection, reflexivity, and critical thinking in our review.

3. Methodology

3.1. Review design

Systematic review methodology has recently been drawing on an interpretive tradition, which has resulted in the development of a variety of methods aimed at synthesizing qualitative and complex bodies of research (for an overview, see Barnett-Page & Thomas, 2009). In their seminal work on meta-ethnography, Noblit and Hare (1988) point out the distinction between aggregative and interpretive synthesis. While aggregative reviews are concerned with accumulating and summarizing data by means of key concepts and categories defined at an early stage, interpretive reviews are more inductive and aim to reach a deeper understanding of the concepts involved. Despite these shared characteristics, recently developed interpretive review methods are theorized from varying epistemological stances. A constructivist approach to systematic reviewing is claimed to be especially relevant in the case of large, complex and diverse bodies of research lacking consensus on the standards of methodological quality appraisal (Dixon-Woods et al., 2006). As noted above, this is indeed the case with the academic literature on reflection (Fook et al., 2006). Constructivist approaches to reviewing are generally dynamic and non-linear, including a high degree of iteration regarding literature selection, data interpretation and the synthesizing process (Barnett-Page & Thomas, 2009; Dixon-Woods et al., 2006). The parameters of this review, such as the research question and the in- and exclusion criteria for study selection, were consequently developed during an iterative process of literature searching, reading and interpretation. All steps of the review process were discussed in an interdisciplinary research team to increase the transparency of the interpretive work.

3.2. Search strategy, literature selection and data extraction

3.2.1. Literature search

Studies were identified through a systematic key word search in electronic databases. Databases consulted were Web of Knowledge, ERIC, ProQuest and PubMed where a Boolean logic combining key concepts from the research question was applied. Given the lack of clarity regarding terminology in the reflection-literature as well as the study's aim to identify multiple interpretations of reflection as an educational concept, a wide range of key terms was used. Search strings consisted of a combination of the following terms which were scanned for in titles, key words and abstracts: (critical reflection OR reflectivity OR reflective practice OR reflexivity OR critical thinking) AND (teacher education OR social work OR psychology) AND (higher education OR training). Alternate terms included in the final search string, namely reflect*, self-reflect* and self-reflex*, were iteratively generated by scanning seminal literature on reflection as well as results from initial trial searches.

3.2.2. Study selection

3.2.2.1. Type of study and quality appraisal. Papers included in the review were international peer-reviewed articles published in English. Two articles on critical reflection in teacher education were written in Spanish and therefore excluded from the review. Furthermore, to keep the review work feasible, a time frame was imposed to only include studies published between January 2000 and December 2016. There were no constraints concerning the methodology of the studies. Given our aim to develop a more formalized and insightful understanding of the concept under scrutiny rather than a generalization of the data involved, sampling was systematic but mostly purposive (Benoot, Hannes, & Bilsen, 2016) and literature selection was guided by principles such as relevance and theoretical saturation rather than exhaustiveness and methodological rigor.

3.2.2.2. Research context. Most of the articles selected for the review were situated within a higher education context and had students as participants. The review however also includes articles that focus on the reflective practices of practitioners. These studies were considered relevant if they focused on vocational learning contexts or mentioned the implications of their findings for learning and teaching reflection within training or higher education contexts.

3.2.2.3. Definition and purpose of reflection. This review did not build on an *a priori* determined definition of reflection. Based on title and abstract reading, all empirical studies applying one of the key words from the search string in educational contexts in teacher education, social work or psychology were regarded as relevant articles. This first cycle of study selection resulted in the inclusion of 225 relevant studies. A second phase of study selection identified the articles explicitly covering the purpose of reflection. This resulted in the identification of 42 studies as relevant to the purpose of the review. At this stage of the selection process, it was decided to also include studies that made statements on the use or outcomes of reflection. The inclusion of these studies allowed for the integration of critical perspectives on unexpected or undesired outcomes of reflection, which were particularly important to develop a more insightful conception of reflection as an educational concept.

3.2.3. Data extraction and interpretation

Of the 42 studies selected, 22 were situated within teacher education, 12 within social work, 7 within psychology and 1 within both social work and psychology. Their publication dates ranged from 2003 to 2016, with 29 of the 42 studies being published after 2010. Most of the studies used qualitative research designs (38 studies), 3 studies had a mixed method design and only 1 study had a fully quantitative research design. The articles selected were thematically analyzed with an emphasis on the purposes of reflection for teacher education, social work and psychology. Different methods of interpretive reviewing build on elements of Glaser and Strauss's (1967) grounded theory (Barnett-Page & Thomas, 2009). This review shares elements with the grounded theory approach in its inductive approach to data interpretation. The data analysis was conducted without an *a priori* determined theory on reflection's educational purposes guiding the interpretation of the results. During the first stage of the analysis, the phenomena relevant to the aim of the review were coded in the text and clustered into descriptive categories. During a second stage, categories describing different purposes of reflection were further interpreted to form three analytical categories: educational purposes of reflection related to the personal dimension, the interpersonal dimension and the socio-structural dimension. In a final stage, the studies selected were reread refining the categories and adding additional elements necessary to develop a complex and elaborate picture of the educational purposes attributed to reflection in teacher education, social work and psychology.

4. Results

The findings of the review are structured according to the level at which the educational purposes of reflection are situated: the personal, interpersonal or socio-structural level.

4.1. Personal level

4.1.1. Professional development

Professional development is one of the most cited educational purposes of reflection and is evident in the empirical studies in all three disciplines. Nevertheless, there is no consensus on what being professional specifically entails. Different ideas about becoming more professional are considered desirable outcomes of reflection, such as developing competences and generalist or specific professional skills (Dyson & Brice, 2016; Rivers, Richardson, & Price, 2014; Spendelow & Butler, 2016), constructing practical theories and as such a professional identity (Farr & Riordan, 2015; Körkkö, Kyrö-Ämmälä, & Turunen, 2016), meeting the demands to take on a variety of professional roles (Fisher et al., 2015) and upholding the professional status of one's field (Cropley, Hanton, Miles, & Niven, 2010). Taylor (2006), however, adds a critical remark noting that reflective practice can also be a process in which narrative and rhetorical devices are used to persuade others of one's professional competence.

4.1.2. Personal awareness

The development of some form of personal awareness is often referred to as the 'reflexive' or 'critical' goal of reflection. From this view, reflection should allow students to take into account their ethnic, racial, socio-economic, historical, spiritual, linguistic, and professional background as well as it's impact on practice (Durden & Truscott, 2013; Dyson & Brice, 2016; Eick & McCormick, 2010; Holden, 2012; Johnston, 2009; Moloney & Oguro, 2015; Rousseau & Tate, 2003). Some authors claim that reflection is particularly important to become aware of the power one holds as a practitioner (Acquah & Commins, 2015; Schinke, McGannon, Parham, &

Lane, 2012; Suárez, Newman, & Reed, 2008) and how language and professional discourse constitute this power (Harman, Ahn, & Bogue, 2016; Morley, 2004, 2008).

4.1.3. Changing beliefs, attitudes and behavior

Several studies claim that reflection should not only encourage awareness of the self, but also transformation of the self. As such, reflection is often related to Mezirow's (1998) concept of transformative learning (Carrington & Selva, 2010; Körkkö et al., 2016; Morley & Dunstan, 2013). Both Cropley et al. (2010) and Jung (2012) found that reflective practice generates new perspectives on one's own perspectives, as well as, more fundamentally, entirely new belief systems or consultant philosophies.

4.1.4. Agency as a learner

A variety of studies consider reflection as a method to enhance the empowerment, autonomy, agency or responsibility of the learners involved. For example, both within social work and teacher education, it has been argued that reflection is a valuable tool to question and rethink dominant discourses in education and practice, providing students with the agency to construct alternative discourses and conceptions of power and identity (Morley & Dunstan, 2013; Morley, 2004; Pillay, 2015). Reflective practice has also been conceptualized as a method to increase autonomy and responsibility over one's learning process (Danielowich, 2007; Morley & Dunstan, 2013). Philip and Zavala (2016), however, critically point to the limitations of certain forms of critical reflection to be empowering for students. More specifically, they emphasize how critical pedagogies that are largely infused by an 'us versus them' rhetoric close off certain forms of learning and transformation within classrooms, in which identities are often far more complex than these 'us versus them'-binaries suggest.

4.2. Interpersonal level

4.2.1. Practical knowledge

The integration of theory and practice is commonly cited as one of the purposes of reflective activities in education as this might allow students and practitioners to formulate context-based responses to unique and complex situations (Cropley et al., 2010; Duquette & Dabrowski, 2016; Jung, 2012; Ovens & Tinning, 2009; Spendelow & Butler, 2016). In Cropley and colleagues' (2010) study of clinical psychologists' perspectives on effective and reflective practice, reflection-on-practice was identified as an important vehicle to develop more effective practice by generating context-specific answers to problems associated with service delivery. Additionally, Duquette and Dabrowski (2016) argue that practical knowledge may help student teachers refine their instructional practices in a way that they will respond to students' specific learning needs.

4.2.2. Awareness of the other

Furthermore, at the interpersonal level, reflection is considered useful to develop an awareness of the other. This awareness should specifically concern clients' cultural identities (Schinke, McGannon, Parham, & Lane, 2012), spiritual beliefs (Holden, 2012) and socio-economic realities (McIlveen, Beccaria, du Preez, & Patton, 2010). Within social work, Suárez et al. (2008) conceptualize self-reflection as congruent with the person-in-environment-perspective, because it highlights the complexities of both social workers' and clients' varied and intersecting social identities. Taking the intersections and interrelationships between people and their social contexts in consideration may help practitioners contextualize their analysis and practice.

4.2.3. Empathic understanding

Different studies emphasize that reflection supports the development of empathic relationships with clients and empathic understandings of their situations. Especially within the discipline of clinical psychology, this purpose of reflection is stressed (Fisher et al., 2015; McIlveen et al., 2010; Spendelow & Butler, 2016). Within social work, however, Badwall (2016) has problematized the perceived connections between critical reflection and empathy. She argues that generally accepted social work values such as empathy, critical reflexivity and client-centered practice may collude with daily racism, since expectations for social workers to be empathic and critical practitioners can create barriers against students' naming and discussing of issues of difference and racism.

4.3. Socio-structural level

4.3.1. More effective practice

In social care disciplines such as teaching, social work and psychology, reflection is often assumed to improve practice, provide more effective service delivery and even contribute to a more efficient functioning of the educational and societal system as a whole (Giovannelli, 2003; Hill, Crowe, & Gonsalvez, 2016; Tan, 2008; Woodward, Keville, & Conlan, 2015). Several studies argued that the development of knowledge-in-action through processes of reflection adds to the evidence base of practitioners to make decisions in complex situations. As such, it renders their practice more effective and accountable (Cropley et al., 2010; Duquette & Dabrowski, 2016). Moreover, one study defined reflection as a way to uphold a person's transparency and accountability to clients and the community at large (Dyson & Brice, 2016). Interestingly, another study described increasing governmental demands of accountability as the antithesis of reflective practice (Brown, Fenge, & Young, 2005).

4.3.2. Situating practice within structural and social contexts

Relating one's practice to socio-political, ethical and cultural contexts and analyzing the structural power relations operating

within these contexts is often cited as the 'critical' aim of reflection. This is claimed to be especially relevant to develop practices that are sensitive to cultural (Acquah & Commins, 2015; Durden & Truscott, 2013; Eick & McCormick, 2010; Johnston, 2009; Moloney & Oguro, 2015; Schinke et al., 2012) or socio-economic differences (McIlveen et al., 2010). Several studies specifically focus on the deconstructive power of critical reflection and how it challenges hegemonic discourses and their operation within practice and education (Carrington & Selva, 2010; Harman et al., 2016; Morley & Dunstan, 2013; Morley, 2004; Rohleder, Swartz, Bozalek, Carolissen, & Leibowitz, 2008; Suárez et al., 2008). Within social work, Pillay (2015), Rutten, Mottart, and Soetaert (2009), and van Wormer and Juby (2016) have suggested turning to fiction and popular culture to critically reflect on social discursive and re-presentational processes and their repercussions on social work practice and education.

4.3.3. Social transformation

In addition to the deconstructive purpose of reflection, a number of studies indicate a need for reflection to be reconstructive and work toward change. Critical reflection is thus attributed a transformative function at both the personal and the societal level, as it is expected to reconstruct new interpretations of a situation, new forms of knowledge and new social structures (Carrington & Selva, 2010; Morley & Dunstan, 2013; Morley, 2004; Suárez et al., 2008). All of the aforementioned studies turn to their discipline's emancipatory goals and social justice aims when discussing what kinds of social transformation critical reflection should work toward. However, the emancipatory aim of reflection has also been the subject of critique. Philip and Zavala (2016) illustrate how non-dialogical and binary critical discourses negate the situated and relational character of power, fail to acknowledge the inter-section of identities and as such close off certain forms of social transformation. Within the discipline of social work, Badwall (2016) argued that critical reflexivity can operate as a tool of societal governance and moral regulation, since the concept is related to notions of what constitutes valuable social practice inscribed in white liberal normativity. As such, critical reflexivity is at risk of replicating colonial constructions of white normativity and re-centering whiteness within social work education and practice.

4.3.4. Reflection as a counterforce, as resistance

Some empirical studies emphasize the importance of critical reflection to counteract or resist certain dominant practices within their discipline's education, research and practice. Christine Morley, for example, has elaborated on the potential of critical reflection as a force against the negative consequences of globalization (Morley, 2004), and neoliberal thinking and practice (Morley & Dunstan, 2013) on social work education and practice. She explicitly positions teaching and practicing critical reflection as "one form of resistance among many counter forces that are developing" (Morley, 2008, p. 408). Critical reflection and reflective practice have furthermore been identified as forms of resistance against dominant conceptions of what constitutes valuable knowledge and evidence in social care professions. Within teacher education, Forgasz (2014) advocates a form of embodied self-reflexivity and frames this as a subversion of dominant traditional logical-rational approaches to teaching, learning and reflection itself. In a similar vein, McIlveen et al. (2010) have framed the reflexive method of auto-ethnography as a response to psychology's enculturation in a positivist paradigm.

5. Discussion

While there is some debate on the possibility to teach reflection in the first place in conceptual literature (Clarà, 2015; Ryan & Ryan, 2013), the empirical articles under review generally emphasize the value of teaching reflection in social sciences, attributing various purposes to it at personal, interpersonal and more structural levels. The diversity of justifications to teach reflection identified in our review illustrates that the complexity and openness of reflection at the conceptual level translates to the empirical level as well.

According to Issitt (2000), the flexibility of reflection as an educational notion is one of its main attractive features, yet also leaves it open to appropriation by different stakeholders and theoreticians, often with competing social and educational intentions. It has, for example, been argued that the teaching of reflection has been developed differently in various health and social care sciences to legitimize and support the dominant professional and epistemological approaches of these disciplines (Norrie et al., 2012). In our review, we identified some purposes of teaching reflection that can be characterized as discipline-specific, such as keeping in touch with core social work values (Brown et al., 2005) or exploring the phenomenon of countertransference in clinical psychology contexts (McIlveen et al., 2010). Interestingly, one study applied an interprofessional perspective on reflection, emphasizing that it should support students in social sciences to decenter their academic self by examining and interrogating the assumptions of one's discipline (Rohleder et al., 2008).

Generally, the empirical literature in all three disciplines shared a preference for critical-emancipatory over technical-rational approaches to reflection. Even though the studies did not necessarily use critical reflection as their central concept, a majority of the educational goals in the empirical literature are in line with the critical goals of reflection as identified by Brookfield (1995), Fook (2002) and Mezirow (1998). Several articles explicitly referred to critical social theory, critical pedagogy and postmodern critical principles as a foundation for their approaches to teaching reflection in social sciences.

Furthermore, the empirical work reviewed in our study often included an explicit formulation of the value-bases informing research on and practices of teaching reflection. Advancing social justice was most frequently mentioned as the ethical and political framework to which reflection should be related, as was developing culturally sensitive practice and fostering anti-oppressive, de-mocratic, equitable and ethical inclusive practice. As Brookfield (1995) has argued, practicing critical pedagogies is indeed inherently political and recognizes the value-laden content of what is taught as central to the teaching process.

While technical-rational and instrumental competence models of reflection have been extensively critiqued (Ecclestone, 1996; Edwards & Thomas, 2010; Ruch, 2002; Smyth, 1989), reflection's critical and emancipatory claims have not been without criticism

either. Bleakley (1999), for example, has problematized the assumption of emancipatory interpretations of reflection that autonomy and agency are natural and transparent, rather than discursively, historically and culturally situated notions. In addition, Fendler (2003) has critiqued the dichotomous construction of critical reflection as the opposite of technical reflection as well as the prioritizing of the former over the latter as a 'better' way to reflect. This hierarchical ordering of reflection is evident in a variety of the empirical studies as well. According to Fendler (2003, p. 20), however, there is "no essential unsocialized way of thinking that can be depended upon as the basis for critical reflection on social power relations" and we should be more conscious of the operation of power inequalities and processes of exclusion in all constructions of reflection, including the critical ones. Nonetheless, only two articles included in the review developed a critical perspective on critical reflection, studying its potential –and often unintended-disempowering or disciplining effects. As our review demonstrates, the reflective scientist practitioner has become a central notion in higher education in teaching, social work and psychology, yet critical empirical perspectives on the concept as such remain sparse.

6. Conclusion

Our review clearly illustrates the complexity and openness of reflection as an educational concept both at a conceptual and an empirical level within the disciplines of teacher education, social work and psychology. Different practices and forms of thinking are considered reflective and the teaching of reflection is attributed a broad diversity of educational values and purposes. Based on our findings, we argue for an explicit articulation of the value-bases and theoretical traditions underpinnings one's (research on) practices of teaching reflection as this opens the debate on the conceptual meaning of reflection, its claims on what constitutes 'true knowledge' and 'good practice' in social sciences as well as its possible empowering or disempowering effects when implemented in educational contexts.

An open articulation of the normative aspects of teaching reflection may avoid a narrowing down of the concept to exclusively competence-based implementations in education, which divorce values from techniques and methods (Ecclestone, 1996) and re-inscribe in the discourse of education the categories of accountability and performativity the concept seeks to critique (Hodgson, 2009). On that account, an important limitation of this study is the exclusion of empirical articles that focus on the methodical and technical aspects of reflection in education (e.g. measuring the effect of teaching reflection or comparing levels of reflection). These studies were excluded from the review because the educational purpose of reflection was not their main focus. Nevertheless, they also incorporate ideas about what reflection is and should do, for example by developing or using particular measurement instruments. An examination of the more implicit assumptions on the purposes of reflection operating in empirical literature would be an interesting scope for future research.

Secondly, a more explicit formulation of the rationale for teaching reflection in the social sciences may constitute a ground for the development of more coherent and systematic empirical research on reflection in education. This, in turn, could support teachers and students to develop a better idea of the different forms reflection can take, what practices are involved in them, how they can be taught and what their value can be in various educational or professional contexts (Smith, 2011).

However, we do not argue to uncritically adopt and implement any construction of reflection in social sciences higher education. As our review has indicated, there is a need for more empirical research that critically studies the outcomes of reflective practices in education and questions under what circumstances and for whom particular practices of reflection do or do not work.

The aim of our review has not so much been to contribute to a conceptual clarification of what constitutes 'good', 'real' or 'truly critical or emancipatory' reflection in social sciences. Rather, we have tried to illustrate the ubiquity of reflection in education, the variety of meanings given to the concept, and how this plays out in educational contexts in social sciences. Following the argument of Fendler (2003, p. 23) that every conception of reflection is socially and discursively situated, we propose to deal with the omnipresence of reflection in education not from the assumption that "everything is bad", but that "everything is dangerous" and "if everything is dangerous, then we always have something to do".

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