Chapter 33
Re-centring the Individual in Participatory Accounts of Professional Identity

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Abstract Studies of professional identity are generally conducted using participatory frameworks and from the perspective of a particular development initiative. They provide understandings of teachers’ move towards more comprehensive participation in the practices the initiative promotes. Studies in line with this main trend, however, leave questions of teacher identity unanswered when teachers are not enrolled in long-term development programmes. I argue that to address such questions a different framework is needed, one that maintains the participatory stance, but focuses on the individual teacher rather than a development initiative. It is the intention of the Patterns-of-Participation framework (PoP) that I introduce to re-centre the individual in this sense. To make my point, I discuss how research frameworks may be conceptualized and compared and use the resulting “frameworks framework” to contrast studies of the main trend with the intentions of PoP.

Keywords Professional identity · Teacher development · Research frameworks Social practice theory · Patterns of Participation (PoP)

33.1 Introduction

The notion of professional identity has attracted increasing attention in research on and with teachers over the last decade, both in mathematics education and beyond. The construct of identity is generally conceived in processual and participatory terms, and often the intention is to understand how teachers’ experiences with programmes for educational development inform and transform their tales of themselves as professionals as well as their contributions to the practices that evolve at their schools and in their classrooms. In this sense the research interest in identity may be seen as a supplement and to some extent as a challenge to most research on
teachers’ knowledge and beliefs, which to a greater extent relies on constructivist interpretations of human learning.

In what follows I build on this relatively recent, participatory approach. However, I argue that there is also a need for frameworks that re-centre the individual in studies of teacher identity. I present one such framework called Patterns of Participation, PoP, and ask how it differs from other participatory approaches to research on and with teachers, including what it has to offer in terms of interpretive potential of teachers’ professional identities. The moral of the story is that both approaches are needed, and that PoP is helpful for understanding teacher development in the majority of cases in which they are not involved in comprehensive programmes for teacher development (TD programmes).

To make my argument, I first discuss the notion of a research framework before outlining perspectives on identity in key references beyond mathematics education. These two sections form the backdrop for a discussion of a general trend in identity studies in mathematics education (Sect. 33.4). I then discuss identity as conceived in symbolic interactionism, a further inspiration for the PoP-approach, which I present in Sect. 33.6. I round off by comparing and contrasting the general trend and PoP studies of identity.

### 33.2 Theories and Frameworks

Mathematics education research is characterised by a mixture of what Steiner (1984) calls theoretical imports and home-grown theories. Consequently the role of and mutual relationships between different theoretical approaches is a recurrent theme in the field. Phrasing this discussion in terms of theory networking, Bikner-Ahsbahs and Prediger (2010) place propensities to engage with a variety of theoretical perspectives on a continuum ranging from ignoring other theories to integrating them globally. Comparing and contrasting different theories are placed approximately in the middle of the continuum.

It is not obvious what it takes for an approach or a framework to qualify as theory and what role theories may have in mathematics education research. Apparently with inspiration from mathematics, Niss argues that a theory is a hierarchically ordered network of concepts and a related set of claims about some field of investigation (Niss 2007). The claims are, according to Niss, either “fundamental” in the sense of being beyond justification within the theory itself, or derived from some such set of claims by formal or experimental/experiential means. Romberg (1998) talks about research conducted by the National Center for Research in Mathematical Sciences Education and says that by theory he and his colleagues mean “a set of statements about the causal relationships between and among a number of variables used to describe features of classroom communication in mathematics” (p. 387).

Adopting a somewhat broader perspective, Radford (2008) argues that a theory may be thought of as an ordered triple of basic Principles, Methodologies, and
paradigmatic Questions. The Principles are the system of views and statements that serves to “delineate the frontier of what will be the universe of the discourse and the adopted research perspective” (p. 320). As an example Radford mentions how cognition is considered important, but is interpreted differently depending on what system of principles (e.g. constructivist or socio-cultural) is adopted. The Methodology is the set of methods used, but also the reasons for using them, and the arguments for turning pieces of data material into data, that is, making them worthy of analysis. The paradigmatic Questions are the ones that were addressed initially in the field and that continue to orient it with regard to what and how questions are asked. Like Bikner-Ahsbahs and Prediger (2010), Radford is interested in theory networking and suggests that \((P, M, Q)\)-triples may be helpful for instance for considering how to link the Principles of one theory with the Methodology of another.

My intention at present is not to suggest ways of combining certain elements of one theory with different elements from another. Instead I discuss a compare-and-contrast approach to networking in the particular case of frameworks currently used in the study of professional identity. In particular I discuss differences and similarities between what I see as a major trend in mathematics education research on identity on the one hand and PoP on the other. To do so, I begin by discussing the notion of a research framework. I have previously used this “frameworks framework” to consider the relationship between main-stream belief research and PoP (Skott 2015a). The differences are in this case more obvious than the ones I am pointing to in the present context. However, I suggest that the approach is also useful when comparing frameworks currently used to study professional identities.

The notion of a framework carries different metaphorical connotations irrespective of whether it is—or in the particular case functions as—a theoretical, a conceptual, or a practical one (cf. Eisenhart 1991). It may limit what one can see or focus on (cf. a picture frame); it may be a support structure that upholds the interpretations made and ensures that they are sound and do not “collapse” (cf. construction frameworks for buildings); or it may allow one to go to places from where one can see well-known landscapes from new vantage points or even to travel to new territories and experience things never before imagined (cf. a bicycle frame). Irrespectively of whether any or all of these metaphors carry weight in a particular case, the framework constitutes an argument for why the approach adopted makes sense for the purposes of the particular study. A framework is “a basic structure of the ideas (i.e., abstractions and relationships) that serve as the basis for a phenomenon that is to be investigated” (Lester 2010, p. 69).

In this section I draw on and extend Radford’s (2008) discussion of the \((P, M, Q)\)-triple, even though the frameworks that I compare, those used in participatory studies of professional identity, may not qualify as theory in the sense of Niss or Romberg (cf. above). The rationale is that it is also helpful to be able to compare and contrast these more loosely structured approaches to empirical study.

I use the notion of a framework in a narrow and in a broader sense (see Fig. 33.1). In the narrow sense it includes
F(1) a set of key concepts: in research on and with teachers the set may include mathematical knowledge in or for teaching; beliefs; participation; practice; interaction; identity;

F(2) a theoretical stance: used to interpret the meaning, relative significance of, and relationships among the concepts in F(1). For instance, primarily acquisitionist and primarily participatory approaches to understanding the acts of teaching may be used to develop different interpretations of concepts that are nominally the same or similar;

F(3) a rationale: the reasons for engaging in a line of study, such as developing novel understandings of issues under investigation, supporting educational development, or some combination of the two.

In a wider sense a research framework includes also the unit of analysis, the paradigmatic research questions, and the methodology. In line with Radford (2008), I consider the methodology a triad of M(1): the methods used; M(2): the reasons for using them; and M(3): how issues and relationships in data material (e.g. transcripts from a video recorded classroom observation) become data, that is, worthy of attention in the subsequent analysis.

As indicated by the arrows in Fig. 33.1, the elements of the frameworks-framework are considered reflexively related. It is not assumed that the choice of framework (in the narrow sense) or the methods follow linearly from the research questions. There is in this interpretation no unidirectional and almost causal relationship between the questions and the other elements of the framework (in the broader sense). The elements of the frameworks-framework are considered mutually dependent, as for instance the meaning of the research questions is elusive, if other elements are not considered.
33.3 Researching Identity—Inspiration from Outside Mathematics Education

The participatory and situative orientation is apparent in many studies of identity (e.g. Beauchamp and Thomas 2009; Beijard et al. 2004; Brown and McNamara 2011; Cobb and Gresalfi 2011; Diversity in Mathematics Education Center for Learning and Teaching 2007; Hodgen and Askew 2007; Horn et al. 2008; Teacher Education Quarterly 2008). Key references and main sources of inspiration come from discourse analysis and social practice theory and include people like Gee (2000–2001), Holland et al. (1998), Lave (1988, 1996), and Wenger (1998). Far from considering identity a stable personality trait, these scholars view it as ever-evolving and constantly renegotiated in social practice.

Gee (2000–2001) describes identity as “being recognized as a certain kind of person in a given context” (p. 99). Such recognition is based on “a combination” of for instance ways of speaking, acting, dressing, and feeling that actively invites or at least leaves one open for interpretations of being a particular kind of person in that particular situation. Identities may be viewed (and have been viewed) as primarily the result of forces of Nature (e.g. being an identical twin); as related to one’s position in an Institution (e.g. being a university professor); as Discursively established (e.g. being a charismatic person); and based on one’s allegiance to and involvement with a set of practices in an Affinity group. (e.g. being a Star Trek fan). These N-, I-, D-, and A-identities interrelate in a myriad of ways. For instance, the N-identity of being a child with ADHD may be Institutionally sanctioned when the child gets a diagnosis, and there are Affinity groups that arrange support activities for ADHD children. Gee asks two questions about how identities are established and sustained. A macro-level question concerns how institutions and discourses function so as to make recognition of some “combination” possible in a particular context? A micro-level counterpart is how “a combination” becomes recognised, contested, or renegotiated in particular face-to-face interactions?

Social practice theory views individual identities as contextually embedded and dependent, and therefore multiple, fluctuating, and always in-the-making. Holland et al. (1998) define identity as “the imaginings of self in worlds of action”, and as identities are “lived in and through activity [they] must be conceptualized as they develop in social practice” (p. 5). There are two interrelated aspects to this, one of which concerns how people position themselves and each other in everyday interactions. The other aspect is related to figured worlds, that is to “socially and culturally constructed realm[s] of interpretation, in which particular characters and actors are recognised, significance is assigned to certain acts, and particular outcomes are valued over others” (Holland et al. 1998, p. 52). Such imagined and collective as-if worlds and their related discourses and practices orient action and sense-making and serve in open-ended ways to “figure the self” (p. 28). Figured identities, then, concern narrativised versions “that make the world a cultural world” (p. 127).
Also working in social practice theory, Wenger (1998) argues that identity may be viewed as negotiated “ways of being a person in [a] context” (p. 149). He elaborates on this for instance by saying that “identity [...] is a layering of events of participation and reification” connected to a practice (p. 151). Practice is viewed as a process and outcome of collective learning. Engaging with one another in the pursuit of a joint enterprise, people use or jointly develop a repertoire of modes of participation in the practice, negotiating its meaning and the character of their own membership in the community in question in the process.

Although Wenger’s distinction between participation and reification does not parallel the one from Holland et al. between positional and figurative identities, both pairs of concepts point to the emerging interplay between immediate social encounters and social markers or identifiers (e.g. being recognised as a qualified teacher) as sources of identity. Empirical studies informed by and contributing to social practice theory have focused on a range of different social constellations, from Alcoholics Anonymous in the US to tailors in Liberia and emphasised how individuals gradually come to participate more profoundly in the practices involved (cf. Wenger 1998) or orient themselves towards the figured worlds in question (cf. Holland et al. 1998).

One difference between the concepts of practice and figured world is that the latter may gain a social existence for the individual without her or his involvement in the renegotiation of the meaning of the broader enterprise. It has been argued, for instance, that the current reform movement in mathematics education (*the reform*) may qualify as a figured world for a teacher (e.g. Ma and Singer-Gabella 2011). Within the reform discourse there are certainly certain characters that are recognised and certain acts and outcomes that valued over others (cf. the definition of figured world above). In spite of that, *the reform* hardly qualifies as a practice in which the teacher contributes to the renegotiation of its broader social meaning, although (s)he may of course renegotiate its role and meaning as it is dealt with in a particular development initiative or among her colleagues and as it relates to his/her own contributions to the practices of the classroom. In spite of the difference, however, both practices and figured worlds may significantly orient contextually dependent identities as they evolve in classrooms and at schools.

### 33.4 Mathematics Education Research on Identity

Significant parts of the growing scholarship on mathematics teachers’ professional identities draw on the broader scholarship on identity outlined above (Cobb and Gresalfi 2011; Cobb et al. 2009; Hodgen 2011; Hodgen and Askew 2007; Horn et al. 2008; Ma and Singer-Gabella 2011; Sfard and Prusak 2005). In what follows I do not claim to do justice to the field as a whole, but refer to four studies that I consider representative for a reasonably significant part of the field. Or rather, the four studies are non-representative in the sense that they are more comprehensive and better documented than most, but at least somewhat representative for my
present purposes, that is, as far as their frameworks are concerned. In this sense I suggest that they are representative of a somewhat general trend in mathematics education research on professional identity.

Hodgen and Askew (2007) refer to Holland et al. (1998) in their report on a case study of a primary teacher, Ursula, and analyse how her emotional relationships with mathematics develop over the 3½ years of her participation in a TD initiative. In their analysis, Hodgen and Askew relate emotion to the teachers’ “figured” and “positional” identities (cf. above), that is, aspects of identity that are either relatively stable in the sense of cutting across teachers’ participation in different communities of practice or more local and position them in relation to one particular context. They argue that a focus on identity helps understand why professional change is difficult to achieve, not least in mathematics, and use the construct to interpret how Ursula develops from distancing herself from mathematics to challenging dominant norms for school mathematics and “constructing a strong and powerful image of a different mathematics teaching” (p. 482).

Cobb and Gresalfi (2011) seek to document how teachers relate to and come “to identify with the vision of high quality mathematics instruction” promoted by the TD initiative in which they take part (p. 271). Cobb and Gresalfi argue that it is useful to view identity as “a set of practices and expectations that shape participation in particular contexts” (pp. 273–274), and they focus on the extent to which teachers in the study identify with “others’ expectations for competent teaching” (p. 275). They draw on Gee’s (2000–2001) distinction between institutional and affinity identity and investigate how middle school teachers involved in the comprehensive TD programme react to tensions and conflicts between the “normative affinity identities for teaching” established within the TD programme and the normative institutional identities of the schools at which the teachers work.

A somewhat similar approach has been taken to prospective teachers. Both Horn et al. (2008) and Ma and Singer-Gabella (2011) draw on Holland et al.’s notion of figured world, and investigate how prospective teachers’ identities develop. Horn et al. define identity as “the way a person understands and views himself, and is often viewed by others, at least in certain situations—a perception of self that can be fairly constantly achieved” (p. 62). Working with secondary teachers, they investigate the reflexive relationships between such identities and two different contexts, the university-based teacher education programme (TEP-world) and the prospective teachers’ experiences from their school placements (Field-world). They focus on how research participants’ descriptions of what a good teacher is and of themselves as teachers-to-be relate to their engagement in these two different “worlds” of their pre-service education, while acknowledging that “the figurative RealWorlds of the interns’ own past experience” (p. 63) also play a part. Ma and Singer-Gabella work with prospective elementary teachers and—like the other authors mentioned above—distinguish between the reform and the traditions of school mathematics. They argue that teacher education programmes that value the reform must move beyond teaching relevant content and
make students familiar with and participants in the figured world [of the reform], both reshaping their various models of identity of children and teachers and introducing or promoting an appropriate construction of mathematics. (p. 10)

All the studies above emphasise changes in professional identity as teachers become involved in two distinct sets of practices, one of which represents the traditions of school mathematics, while the other introduces current reform recommendations for the subject as taught in school. The delineation of these two sets of practices constitutes a normative dimension in these studies. Further, the ambition is generally to understand and support teachers’ gradual engagement with the latter of the two sets of practices. The analytical focal point, then, is on teachers’ identity trajectory as they are introduced to TD-practices promoting the figured world of the reform. It is generally implied that identity change is a long-term endeavour that it takes more than yet another course in mathematics for teachers to accomplish. It requires teachers to become “a ‘different’ teacher and a ‘different’ person” (Hodgen and Askew, p. 474). The extent to which programmes are successful in this constitutes the empirical and analytical dimension of the studies.

I suggest that the two dimensions of the studies referred to above, the normative and the empirical/analytical, indicate a trend in studies of mathematics teachers’ professional identities. In general, reform-oriented practices become the centre of attention. Phrased differently the trend is to prioritise a particular set of practices, those related to the PD or teacher education programme, and a related figured world, the reform. In passing it should be noted that this is in line with the theoretical references for this line of research, as most studies in social practice theory in a somewhat similar sense foreground a particular practice or figured world, be it claims processing at an insurance company (Wenger 1998), girl scouts selling cookies (Rogoff 1995), or romance at a university campus (Holland et al. 1998). Centring the reform does not entail a disregard for how individual teachers engage with the practices that the reform promotes. Indeed, these and other studies of professional identity explicitly analyse how individuals or groups of teachers construct new narratives about themselves in relation to school mathematics (Hodgen and Askew 2007); come to identify with practices promoted by the PD initiative (Cobb and Gresalfi 2011); use practices and meaning systems of teacher education contexts as “resources for them to understand their own emerging sense of themselves as teachers” (Horn et al. 2008, p. 67); or focus on “relationships among prospective teachers’ identities as learners, doers, and teachers of mathematics and the contexts and practices in which they are situated” (Ma and Singer-Gabella 2011, p. 9). The overall intention may be phrased metaphorically in the terminology of Lave and Wenger (1991), as attempts to support prospective or practising teachers’ movement from peripheral to more comprehensive or substantial modes of participation in practices envisaged by the figured world of the reform (cf. Fig. 33.2).

Mathematics education research on identity, as exemplified above, has contributed with significant understandings of the potentials of different approaches to professional development, including the challenges that may arise if the intentions
of PD initiatives are in conflict with dominant traditions of school mathematics. However, this line of research leaves questions related to professional identity and teacher learning unanswered in the majority of cases in which teachers are not engaged in long-term development programmes. I suggest that there is a need to supplement this line a study and adopt a somewhat different approach, if the intention is to address such questions.

Such an approach should not prioritise, but also does not disregard, current reform efforts, and studies need to comply neither with the normative nor with the empirical/analytical dimension of other identity studies as outlined above. Rather than foregrounding and centering current recommendations for reform, I suggest addressing the latter of the two questions that Gee asked (cf. Sect. 33.3), the one concerned with how micro-interactions develop and sustain identities, and to re-centre the individual by focusing on the experiences of the teacher in those interactions. In fact the suggestion is to define professional identity as teachers’ experiences of being, becoming, and belonging as school and classroom interactions unfold. In order to develop such a perspective, I seek inspiration from symbolic interactionism.

### 33.5 Interactionist Approaches to Identity

A part of symbolic interactionist writing on professional identity has focused on socially constructed, individual meaning making and pays attention to “the experience of work from the point of view of those who engage in it” (Shaffir and Pawluch 2003, p. 894). This includes how individuals become part of an occupation by engaging in the practices involved in ways that are deemed appropriate and legitimate within the community. This line of research concerns the key concept of self as developed by Mead (1913, 1934) and the inherent I-me duality. According to Mead, the me is the result of a reflective approach to oneself, that is, of viewing oneself from the perspective of others. One takes the attitude of others to oneself,
interpreting their actual or expected actions symbolically, including their possible reactions to one’s own behaviour. In this terminology “‘the me’ [is] that group of organized attitudes to which the individual responds as an ‘I’” (Mead 1934, p. 186).

There are different theoretical and methodological approaches to identity in symbolic interactionism. Structural symbolic interactionists view self as a set of multiple identities, each a result of internalising role expectations stemming from particular positions within social structures. In this tradition identities are defined as “the meanings that persons attach to the multiple roles they typically play in highly differentiated contemporary societies” (Stryker and Burke 2000, p. 286). Although identities are multiple as they relate to a variety of different organisations, groups, or institutions, they are considered relatively stable in terms of time and space. They do vary, though, in terms of salience, that is, in terms of the probability that they are invoked in social interaction. From this perspective the self is viewed as a salience hierarchy of identities from different, but somewhat durable social constellations (Stryker 2008; Stryker and Burke 2000). Smith-Lovin (2007) builds on Stryker’s work, but suggests that in highly segregated institutional settings people rarely encounter situations in which a multitude of high-salience identities are activated at the same time. According to her, people may have multiple identities and complex selves; but they rarely enact more than one significant identity in the same context.

Other symbolic interactionists, working more in Blumer’s tradition (Blumer 1966, 1969), adopt a less structural and more dynamic and situated perspective. According to Blumer “Mead saw the self as a process” (1966, p. 535). In this interpretation the I acts, but the individual instantaneously views her- or himself through the eyes of individuals, specific groups, or generalised others and adjusts her/his actions accordingly. Identity may then be seen as related to the shifting versions of the self that emerge in social interaction. This perspective has methodological implications, and Blumer suggests what he calls a naturalistic approach to empirical research. In contrast to the structural perspective that seeks to develop generalizable hypotheses that may be refuted by quantitative means, Blumer’s perspective is qualitative and interpretive. He describes the methods in terms of exploration and inspection (Blumer 1969).

Exploration is the primarily descriptive phase of “getting close to social life” by using a range of qualitative approaches, that is, “any ethnically allowable procedure that offers a likely possibility of getting a clearer picture of what is going on in the area of social life” (Blumer 1969, p. 41). Such procedures may include for instance observations, interviews, text analyses, and discussions among people closely connected to the focus of the study. Inspection is, in Blumer’s terminology, the phase of developing theoretical accounts of what he refers to as the analytical element of the study. The analytical element may for instance be processes, modes of organization, networks, and relations among networks. As an example he mentions the assimilation of girls in organized prostitution and argues that inspection should consist of the “careful scrutiny of [empirical] instances with an eye to disengaging the generic nature of such assimilation” (Blumer 1969, p. 44).
33.6 PoP and Teacher Identity: Re-centring the Individual

Elsewhere I have categorised different approaches to research on teachers’ beliefs, two of the categories being belief enactment and belief activation (Skott 2015b). They share the view of teachers’ mathematics related beliefs as relatively stable mental constructs that are at least potentially important for teachers’ contributions to classroom practice; the main difference between them is the extent to which it is expected that teachers’ beliefs impact practice. To some extent the view of beliefs as mental constructs embedded in the individual parallels the perspective on identity in structural symbolic interactionism as outlined above, although the belief-activation approach to beliefs is less focussed on structure and more on immediate interaction. The resemblance is that structural symbolic interactionists (Stryker 2008; Stryker and Burke 2000) conceive of identities as affectively laden and relatively stable cognitive schemas that are activated to different degrees in different situations. They are not, then, situated, but variably salient and therefore differentially enacted in different situations.

The PoP framework grew out dissatisfaction with how belief research tends to ignore the field’s conceptual and methodological problems. As a result PoP challenges—among others—both the belief-enactment and the belief-activation approaches (Skott 2013, 2015b). Conceptually the argument is that there is little to gain by assuming the existence and behavioural impact of reified mental constructs in the form of temporally and contextually stable beliefs, and that a more dynamic perspective may be helpful when seeking to understand teachers’ acts and meaning-making. From this perspective teaching is not seen as enactment or activation of temporally and contextually stable beliefs, but as constant negotiation of the teacher’s own contributions to the practices that unfold at the instant in view of her/his prior engagement in other practices and figured worlds. This perspective on teachers’ acts and meaning-making is based on empirically grounded analyses of teaching-learning processes in novice teachers’ classrooms. My argument in the present context is that it provides a useful approach also to understanding teacher identity.

For a very brief illustration of the use of PoP in identity studies I refer to a study of Anna, a young, Danish novice teacher of mathematics for middle and lower secondary school. I followed Anna in four two-week periods over the first three years of her teaching career at Northgate Primary and Lower Secondary School, a well-functioning school with relatively few social problems in a well-to-do area of a major city in Denmark. The data for the study are from interviews and informal conversations with Anna, including some using stimulated recall; from classroom observations; from observations of team meetings and short teacher development initiatives; and from interviews with the leadership and with the three other teachers in Anna’s team. The team is a group of teachers, who teach almost all subjects to the three classes in a year group. In the first year of the study Anna’s team teaches year 7 and the team follows the same three classes until they leave the school after grade 9.
At the time of her graduation from college, Anna is highly committed to her profession. She says that the four years of her pre-service education were tremendously important to her, and that she developed from seeing teaching as something she wanted to study to seeing it as “something that has become part of you” (interview 1). Part of her commitment is to the reform and Anna consistently emphasizes student communication, reasoning, and modelling as important parts of school mathematics. She also distances herself from the other mathematics teachers at Northgate, convinced that they think and act differently when teaching the subject. However, her team is important to Anna and she explicitly wants to learn from older team members. Talking about Ian, who has 25 years of teaching experience, she says that she wants to “maybe copy a little of what [he] does” (second interview). One reason for this is that she finds the other team-members’ interest in building close relations with the students much in line with her own. In the first half of the study Anna consistently talks about her positive relationship with the students and half-jokingly describes it as being “somewhere between a mother and a friend”.

Over the three years of the study, Anna’s allegiance shifts. She has, she says, been recognized as a good mathematician by the other teachers of mathematics. Also, she has developed a trusting relationship with the leadership, and they now often ask for her advice on administrative and educational matters. Besides, Anna is increasingly aware that everybody at Northgate considers it a privilege to work at the school, but one that comes with some obligations. Both her team and the leadership talk about the high level of ambition among everybody employed at the school and say that you are expected to be committed and take your own initiatives. While all of this indicates a stronger allegiance to her colleagues and to the school in general, Anna’s commitment to the reform has weakened. Also, she now considers herself so much older than the students that the significance and character of her relation to them has changed.

Neither Anna’s position among her colleagues nor her awareness of the high expectations connected to teaching at Northgate outline in detail what it entails to teach mathematics to a class of lower secondary students. However, these developments coincide with and are probably related to Anna’s fading commitment to the reform and to a change in her initial interpretation of what it means to have good relations with the students. Taken together this changes Anna’s experiences of being a teacher; of when she is doing a good job and what it means to become better; of what it takes to be recognised as competent colleague; and of what it means to belong at Northgate.

This brief outline of the study of Anna indicates that in line with the main trend in other studies of identity, the PoP framework draws the concepts of practice and figured worlds as developed by Wenger (1998) and Holland et al. (1998) respectively. However, and somewhat in contrast to that trend, PoP does not focus on a set of practices in a particular development initiative and on the figured world(s) it promotes (e.g. the reform). Drawing on symbolic interactionism, PoP re-centres the individual teacher and foregrounds a situated view of identity (Fig. 33.3).
Interpreting or envisaging students’ reactions to her own behaviour, the teacher may take the attitude to herself of the students in question and for instance seek to overcome their frustration with a problem solving task, promote or sustain her own mathematical or professional authority, support the students’ self-confidence, solve an evolving disciplinary problem, and many more. But doing so, she may also draw on practices and figured worlds beyond the classroom, such as those stemming from her teacher education programme or a recent development initiative; from more or less systematic collaboration with her colleagues; from a dominant discourse about the school as promoted by the leadership; from recurrent discussions with parents at PTA meetings or with others with an interest in the running of the school; and even from practices and figured worlds that are less immediately related to school life. Such practices and figured worlds may function as generalized others for the teacher in question as she interacts with her students. And conversely, as teachers work in teams, communicate with the leadership and the parents, individually prepare for tomorrow’s teaching, or engage in other professional activities, they may draw on and discursively reengage with each of the other practices as well as with previous classroom interaction. If and how the teacher experiences herself as a good mathematician, a close ally of the students, a valued colleague, a trusted professional, a promoter of the reform, or as any of the opposites to these or other positive characteristics of being a teacher depends on the attitudes she takes to herself at the instant. And as the significance of and relationships among practices and figured worlds beyond the classroom change, so does the experience of being in it.

From this perspective and in the terminology of symbolic interactionism, professional identity relates to the shifting versions of the me that evolve in interaction. More specifically, it may be defined as the experiences of being, of becoming, and
of belonging that emerge as teachers engage in the acts of teaching. In this definition the term of teaching is used in a broad sense as encompassing all forms of engagement in the profession.

### 33.7 Comparing Frameworks

It is apparent from Sects. 33.4 and 33.6 above that there are many similarities between the framework used in main-trend studies of identity and the one used in PoP. However, there are also significant differences. In this section I use the frameworks framework (cf. Sect. 33.2) to compare and contrast the two.

Similarities between the approaches are apparent when comparing two aspects of the frameworks in the narrow sense, the key concepts and the theoretical stance. Beyond the construct of identity, key concepts of both include the ones of interaction, practice, participation, and figured world. Also, and as reflected in these key concepts, the theoretical stance is similar to the extent that both approaches are inspired by social practice theory and/or discourse analysis. This is non-trivial, as other studies of identity draw on for instance personality theory or psycho-social theory (Skorikov and Vondracek 2011). Also, it means that the concept of identity is in both cases considered dependent on individual engagement with particular social practices.

There are also similarities between the frameworks in the broader sense. In both cases the unit of analysis is concerned with the individual-practice(s) interface. In terms of methodology, both use a multitude of qualitative techniques (observations, interviews, text analyses) in longitudinal studies in order to analyse changes in the relation between research participants and significant social practices. Also, both lines of study tend to analyse data without a ready-made set of codes and categories, and often they make explicit reference to coding procedures inspired by grounded theory.

There are, however, also significant differences between the frameworks. In the case of the main trend, the rationale of supporting teachers to move towards comprehensive participation in practices promoted by the reform has implications for other parts of the framework. The research questions concern “the changes that teachers go through as they determine whether it is worthwhile to attempt to change their teaching practice” (Cobb and Gresalfi 2011, p. 270); “how teachers can become engaged with professional development (PD) in primary mathematics”, despite the emotionally problematic relationship they often have with mathematics (Hodgen and Askew 2007, p. 470); and understanding “what, exactly, are the contributions of teacher education to teachers’ eventual practice?” (Horn et al. 2008, p. 61). The paradigmatic question that orients this field seems to be if and how educational innovation may support identity change so that teachers may relate more productively to the intentions of the reform.

In contrast studies using the PoP framework have no element of intervention at present, and the ambition is to develop understandings of teacher learning in the vast majority of cases in which teachers are not enrolled in long-term development initiatives.
The limited emphasis on interventions and normative issues in PoP leads to differences also in other parts of the framework when compared to the general trend. The key concept of identity is also in PoP a social construct, but it is not linked to a set of practices that are prioritised in advance. It follows that two key questions are what and how prior practices and figured worlds play a part for a teacher’s experiences of being, becoming, and belonging as she engages with others (students, colleagues, the leadership, short-term development opportunities, etc.) as part of her profession? Another question is what changes there are in the significance of and mutual relationships among these prior practices and figured worlds over time? The unit of analysis may still be phrased as person-in-practice(s), but in PoP the expectation is that there are multiple practices involved, rather than merely the ones of the reform and the tradition, and it is an open question what practices and figured worlds turn out to be important.

Finally there are differences in methodology although the methods used are mainly the same. Studies in line with the general trend use methodological triangulation to provide different modes of access to the same unit of analysis (the research participants’ engagement with traditional and reform-oriented practices). In PoP multiple methods are used for a different reason, as it is not assumed that classroom observations, interviews, and other methods shed light on the same key construct. In line with the theoretical stance adopted, the experiences of being a teacher, of becoming increasingly recognised as one, and of belonging in a particular professional context is expected to be decidedly different in a research interview, in a team meeting with colleagues, and in a classroom interaction. The purpose of using different methods is exactly that they provide some access to the teacher’s participation in and experiences from different practices and figured worlds. Such access may be helpful for understanding her contributions to the practices that evolve in the classroom. Further, the parts of the data material that are turned into data are not only those that relate fairly immediately to reform or tradition in school mathematics. Rather, any data material that point to any practice or figured world that appears to orient the teacher’s action or meaning making as they relate to the profession becomes data.

As mentioned before, there are obvious advantages to researching how teachers engage with the practices promoted by TE- or PD initiatives, and how aspects of the reform become a figured world they can attend to when teaching. However, I do suggest that a different approach is needed, if the intention is also to understand how teachers’ identities relate to instruction and to their participation in school life in general when they are not engaged in long-term PD initiatives. The suggestion is that there is a need to re-centre the individual, while maintaining the participatory approach of other studies of identity. PoP is one way to do that. Studies of for instance Anna (cf. Sect. 33.6) indicate that there are issues much beyond those related to the teaching and learning of mathematics that orient teachers’ acts and meaning-making, issues that are elusive, if we limit the focus to the traditions and reform of the school subject. Phrased in more positive terms, PoP and other
approaches that re-centre the individual may shed light on how unexpected practices and figured worlds come to play a role for teachers’ contributions to their interactions with others at their schools. Referring to the metaphorical description of a framework as a bicycle frame (cf. Sect. 33.2), I suggest that PoP allows one to go to unexpected places and see things never imagined before. And although the initial emphasis in PoP is not on interventions, such new experiences may even allow us to look at potentials and problems of educational innovation in new ways. Maybe they are needed for productive educational development.

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