

Abstract: This article discusses a sociocultural approach to processes of identity that has implications for how we understand learning and identity formation in education. Focusing on the socially-constructed and culturally-figured nature of language, tools and interactions in learning contexts, this approach assists in the appreciation of how students navigate through and develop an understanding of themselves in different educational contexts. To this end, reference is made to Wortham's work on interactional positioning in narratives, and the work of Holland and colleagues on figured worlds. Wortham provides the tools for a systematic analysis of how individuals construct their identities by positioning themselves in discursive interaction. Holland and colleagues alert us to the cultural shaping of such positioning in cultural worlds and the artifacts mediating identity formation. To explore the potential of combining these lenses, a case study is described involving a series of interviews with medical students about their self-perceptions in two contexts of clinical training. The case study highlights how different worlds and identities are formed in these educational contexts.

Introduction

Psychological theories of learning and identity have been dominant within medical education (and other), and medical education research for several decades. These conceptions are mainly based upon individual and cognitive models, including varieties of adult learning theory, reflective practice, and experimental learning. In general, these models employ a fragmented account that treats the development of professional knowledge, skills, attitudes, motivation, and identity—deemed vital to medical practice—separately.

The core metaphor underlying the models is that of “acquisition”—exploring actors’ cognitive capacities and problem-solving abilities. Here, knowledge is viewed as an entity acquired in a task setting and conveyed to other task settings. Problem-based learning (PBL) curricula in medical education and elsewhere, increasingly common world-wide, draws upon such notions in an attempt to facilitate a cognitive congruence between the skills learnt at school and the skills needed to perform in real life medical practice (Prince, & Boshuizen, 2004). The aim is to reduce the gap between “theory and practice” or basic and clinical sciences by providing students with authentic problems derived from “real” practice. This “same-context” advantage is often referred to when arguing that the PBL approach is more effective than traditional medical curricula (e.g., Koens et al., 2005). By introducing students to relevant clinical problems in small group discussions (facilitated by a tutor) the goal is to activate, elaborate, and construct students’ prior knowledge, thereby shaping their cognitive behavior in a way similar to what will be expected of them as professionals. Briefly, the aim is to improve the acquisition, retention, and use of knowledge by activating and elaborating prior knowledge.

There is a growing literature that provides contextualized accounts of how interaction and participation in school contexts mediate constructions of both knowledge and identity and their interconnections. Medical educationalists and researchers have begun to configure learning within situated perspectives (e.g., Hilton, & Slotnick, 2005) emphasizing the socially distributed nature of knowledge. Learning in this equation involves processes of identity formation; students not only acquire knowledge and skills but become a particular learner in a particular professional community (Lave, & Wenger, 1991). Learning is a process of becoming. Moreover, the knowledge acquired here cannot be separated from interactional engagement in the classroom. Instead, knowledge and identity constitute each other at the time of learning, as opposed to traditional accounts which distinguish between the two.

The learning metaphor is therefore no longer that of PBL or other individualistic learning theories which focus on the “acquisition” and reproduction of knowledge (i.e., where learning is seen as information seeking and sedimentation of knowledge in individuals). Instead, the “participation” metaphor is emphasized. Rather than as an individual act of knowledge accumulation, learning constitutes active processes of legitimate engagement in collaborative knowledge production. The learner does not operate in a social vacuum but is a part of a more complex community of practice, one in which he or she gradually gains access. The situated view argues that individualistic approaches fail to consider the ways in which the meanings of reflection and learning are socially rather than individually derived, and how individuals’ learning experiences not only occur in social contexts but are also shaped by them. Learning trajectories are as much adaptive social processes as they are cognitive assimilation processes (Bleakley, 2003).

As several have argued (e.g., Linehan, & McCarthy, 2000), the situated view fails to address important issues regarding the conceptualization and analysis of peoples' participation in social contexts, and the identities produced in and through such participation). By making recourse to practice theoretical tenets—sharing a notion of social structure that pre-dates activity so that people are assumed to act according to those structures—it is unable to capture or emphasize the various ways in which actors relate themselves to their social surroundings. It leaves unaddressed the different positioning that we take within a community of practice and how these positions may shift through long-term participation in the activities deemed to constitute such a community. In so, neither does the situated view accommodate moments of ambiguity and tension found in actors' articulations of their experiences (Hodges, 1998). Different enactments of discursive selves may emerge in the space between their activities and their sense of participating in a community of practice. Multiple identities and different identification opportunities may open up to the learner in the void between his or her perception of activities and the professional practice and identity with which they are associated.

Studies of the professional socialization of medical students underline such ambiguities (e.g., Hafferty, 1991). For example, students tend to be positioned by patients, physicians and nurses as both lay people, medical students, and junior physicians. The students also ponder about how patients will relate to them in a somewhat pseudo-medical role. They are confused whether to play the role of a learner, or a physician, as they are caught in between their lack of a clinical role and identity and their wish to be perceived as more than lay outsiders.

Second, Lave and Wenger's practice theory-based approach does not shed sufficient light on knowledge and other artifacts and their mediating role in learning contexts, practices, and identity

formations (Lahn, & Jensen, 2008). A sociocultural perspective is needed to capture how the incorporation of artifacts provides people with tools of agency and identity; how artifacts mediate, expand and limit action, and work as tools for individual's identities in cultural worlds.

However, there is also a need to accommodate a positioning perspective to account for how actors place themselves as social actors within cultural worlds and in relation to the characters, events and interactions that occupy such worlds. A positioning as well as a sociocultural perspective on identity formation is necessary in an account of the socially-constructed and culturally-figured nature of language, tools and interactions in learning contexts. The work of Holland and colleagues (1998) integrates both perspectives within a larger sociocultural theoretical framework on identity formation. Using this framework within educational contexts, I argue, will help us appreciate how students navigate through and develop understandings of themselves in different educational contexts. Later in this article an examination is made of such emerging student identities through a case study of medical student's accounts of their learning experiences in early medical school.

Before that, however, I must take a closer look at the positional identity perspective—highlighting the ways that students may comprehend and actually enact other identity positions that what may be intended from a curricula perspective. I will then lay out Wortham's (2001) presentation of methodological tools for analyzing in detail how subjects position themselves in discourse. Subsequently I elaborate on the figured world framework on identity formations (Holland et al., 1998), a framework productively integrating the view of discursive positioning and the view of tool-mediate identities. In brief, I explore the potential complementarities of

these perspectives with respect to my aim of developing conceptual resources for understanding student's identity formations in educational contexts.

Interactional positioning

“Positional identities have to do with the day-to-day and on-the-ground relations of power, deference and entitlement, social affiliation and distance—with the social-interactive, social-relational structures of the lived world” (Holland et al., 1998, p. 127). Positioning Theory analyses in more detail how individuals position themselves as particular persons in interaction (Van Langenhove, & Harré, 1999). The framework focuses on how we become particular subjects by taking up certain social positions in conversations with others. This “taking up” is viewed discursively. The concept of positioning therefore designates “the discursive constructions of personal stories that make a person's actions intelligible and relatively determinate as social acts within which members of the conversation have specific locations” (Van Langenhove, & Harré, 1995, p. 363). Positioning has proved to be a good metaphor for understanding how people place themselves socially in interaction or take stances relative to those of other people, thereby serving to explain the meaning of those actions.

But we need analytical tools and strategies able to conceptualize and analyze how speakers actually use language to accomplish their social position (or orchestrate their voices) in discourse. Such tools and strategies are also absent among positioning theorists, although they often state the necessity of analyzing the means of positioning. Few of them offer a systematic analysis of the devices or cues through which such positioning is accomplished.

Such a strategy has been developed by Wortham who particularly draws on the concepts of “contextualization cue” (Gumperz, 1992), “indexicality” (Garfinkel, & Sacks, 1970) and Bakhtin’s notion of “voice” (in Holquist, 2004). A contextualization cue designates a linguistic expression that invokes the social context giving the utterance a specific meaning. It indicates how interlocutors construct a relevant context for understanding the utterance. By using certain linguistic expressions in verbal interaction speakers convey signals to his or her interlocutor(s) about which context is relevant in making sense of what is said. The cues that are actually used depend on the linguistic repertoire of the participants. Such cues have indexical qualities; they highlight, point to or create the relevant contextual features. Pronouns, time expressions and prepositions are examples of such signs that create semiotic links between linguistic forms and their social meanings in that they index particular characters, stances, acts and activities, thereby helping to constitute such meaning.

The concept of “voice” further elaborates on the role of contextualization cues and indexical signs for interactional positioning by emphasizing the social nature of language use and discourse: “Form and content in discourse are one, once we understand that verbal discourse is a social phenomenon—social throughout its entire range and in each and every of its factors, from the sound image to the furthest reaches of abstract meaning” (Bakhtin, in Holquist, 2002, p. 259). Discussing the stylistic characteristics of the novel, Bakhtin argues that both written and spoken discourses are constituted by several different social languages and social genres, each often associated with certain characters, ideologies, professions and perspectives. Language is heteroglossic, made up of a variety and combination of social languages and social types as well as certain speech genres. Speech genres tend to be connected to particular forms of utterances and speech situations (poems, sermons, prayers, everyday conversations, medical consultations and

others). Furthermore, by nature every utterance is dialogic and multi-vocal. The meaning of utterances must be understood in relation to other utterances and their points of view and value judgments concerning the same subject. As such, utterances refer both to the voice of the speaker and the voice of the social language by which utterances draw upon and speak through. The meanings created in utterances, therefore, are rooted in social beliefs and values, associated with a certain use of language and a certain identifiable type of speaker. We always make use of the language, dialects, and words from others to whom we have been exposed as well as their associated values and presuppositions.

To produce an utterance inevitably indexes a social position because the words used are refracted by how members of particular social groups use them. Both the spoken and the written word “tastes of the context and contexts in which it has lived its socially charged life” (Bakhtin, in Holquist, 2002, p. 293). This means that to understand the meaning of phrases or utterances we must refocus from looking at represented content of speech (i.e., content structures) to the point where the speakers place him—or herself in interaction with respect to social and cultural communities. Because the words we speak have already been spoken by others, and are already associated with particular social groups, professions, sub-cultures, age-groups and so forth, language use is by nature interactional and inter-subjective (Linell, 2006). Hence, every utterance both represents content and positions the speaker in relationship to it. In the act of speaking the speakers take a position with respect to their interlocutors and their positions

Bakhtin’s concept of “ventriloquation” highlights how such positioning might be cued. The concept describes how speakers indirectly position themselves in speech by juxtaposing and speaking through other voices. It refers to “the process whereby one voice speaks *through*

another voice or voice type in a social language” (Wertsch, 1991, p. 59). By speaking through such double voices the speaker implicitly evaluates his, hers and others’ social behavior and positioning.

However Bakhtin does not further specify the types of cues narrators use to accomplish such voicing and ventriloquation. Wortham extends Bakhtin by describing six possible types of cues or textual devices that narrators may use to index voices and to position themselves: reference and predication, meta-pragmatic descriptor, quotation, evaluative indexical and epistemic modalization. These devices do not exhaust the resources speakers may use to voice themselves (Wortham, & Locher 1996). Many more devices are indeed imaginable. Nor can social positioning automatically be computed by examining these cues. However, such cues nevertheless provide much of the structure through which speakers identify and evaluate themselves and others. In addition, tokens of the devices provide cues from which the analyst always must infer an interpretation of the voicing and ventriloquation. In brief, Wortham develops a whole array of Bakhtinian themes, trying to shape these into a method that can explicate the interactional positioning produced in autobiography.

Reference and predication deal with what the narrator is talking about and how he or she talks about it. The use of these cues not only give information about what narrators choose to talk about (reference), but provide an understanding of how they characterize and evaluate themselves and others as particular social types (predication). By using the cues, therefore, narrators (e.g., medical students) also make claims to stand in certain social relationships with others (e.g., patients).

The use of meta-pragmatic descriptors (verb or noun) further specifies the nature of their social participation by evaluating their use of language. For instance, a medical student framed his communication skills training with patients as a situation where “you just sit there chatting to a human being”. By characterizing their “speech” in specific ways, students elaborate on their social positioning. Meta-pragmatic descriptors are consequently “verbs of saying”, and are meta-pragmatic because they refer to and predicate about language in use. To characterize someone’s speech with a meta-pragmatic verb (e.g., he lied, we chatted) or noun (e.g., lie, chat) is a means of voicing a person and his or her speech. The descriptors are used to refer to and predicate how something was said or what was said in an evaluative way.

Students often also quote what is being said in training and by whom. A quotation may refer both to the speaker quoted, the quotation and his or her use of a meta-pragmatic verb. They may also include mimicry, quasi-direct discourse, indirect and direct quotation. By definition, those who quote others always filter their position. Choosing whom to quote, and in what way, always positions the speaker.

In addition, participants use evaluative indexicals—particular expressions associated with certain social groups. The students either use such expressions themselves when speaking about what they do or say, or refer to other people expressing themselves in certain ways thought to be typical for medical professionals.

I also investigated the student’s use of epistemic modalisation—how they claimed to relate to the events and characters in their narratives. Narrators can claim to have God’s eye on what they speak about, or be mere peripheral spectators. Exploring these devices indicates how students

claim to be more or less involved in clinical practice, more or less participating as privileged participators in matters of disease and illness. For example, a student would say: “Now we know things”, and “Then you discuss [clinical] findings with the physician.” The use of all narrative cues position students in various ways and builds their identities.

Wortham’s framework is conceptually rich and practically useful for identifying the interactional positions and voices that speakers accomplish in talk. In addition, it enables the “figured” aspects of such positions to be explored – the presupposed cultural knowledge of events, characters, and situations underlying interactional positioning. It makes it possible to assess how individual’s interpretations of their social activities and participation are culturally figured.

Identity as shaped in figured worlds

There is a need to move discourse analysis beyond the analysis of language to consider the questions about the presupposed knowledge of cultural worlds underlying discursive positioning and practices (Holland, & Quinn, 1995). Such a shift in the analytical gaze makes possible an understanding of the taken-for-granted frame of meaning applied by individuals or groups to make sense of their participation in unfolding activities. For instance, to make an adequate interpretation of the meanings of words, sentences, and phrases, the analyst cannot rely solely on the semantic or discursive structures of lexical domains. An analysis of romantic relationships among students in colleges, for example, shows how students’ use of certain gender labels in peer interaction are related to a figured world of romance (Holland et al., 1998). In this world gender relationships are perceived to develop in certain ways. A similar point is made in a work about the Ifaluk people of Micronesia and their words for emotions. The meaning of these words cannot be fully grasped from an analysis of the words alone: the analyst must also come to an

understanding of the Ifaluk ethno-theory of emotions that underlies the words (Lutz, 1995). In the case of medical student's identity formations described below, we get a glimpse how their identities are formed on the basis of presupposed knowledge of what constitutes the medical practitioner. "Without this knowledge (of figured worlds), it is difficult to understand the shifts or readings of events that the narrators construct or the reasons why they orchestrate voices as they do" (Skinner, Valsiner, & Holland, 2001, p. 13)

Therefore, to understand peoples' narratives about their engagement and identities in social activities deemed important to them, the analyst must be familiar with the characteristics of the worlds invoked in their stories. The concept and perspective of figured worlds is a way of addressing such characteristics:

By "figured world," then, we mean a socially and culturally constructed realm of interpretation in which particular characters and actors are recognized, significance is assigned to certain acts, and particular outcomes are valued over others. Each is a simplified world populated by a set of agents (in the world of romance: attractive women, boyfriends, lovers, fiancés) who engage in a limited range of meaningful acts or changes of states (flirting with, falling in love with, dumping, having sex with) as moved by a specific set of forces (attractiveness, love, lust) (Holland et al., 1998, p. 52).

The idea that identities are shaped within such figured worlds draws our attention towards the interpretations that actors construct and use to characterize their participation in certain activities. These distilled interpretations are based upon expectations about who participates in certain events and how these events unfold. The concept of a figured world is therefore akin to

conceptions like “storylines” (Davies, & Harré, 1999), “behavioral environments” (Hallowell, 1955), or “cultural models” (Holland, & Quinn, 1995). These conceptions all emphasize how people make sense of their world through simplified cognitive cultural schemes or scripts representing their knowledge of typical characters, objects, situations, events, sequences of events, actions and sequences of action. The schemas are fundamental in our ability to interpret and guide our actions in a wide variety of domains.

The notion of a figured world, however, makes concepts like cultural models or schemes relevant for understanding identity formation in ways not accounted for by these and other theoretical constructs. Drawing on the works of Leontiev, Vygotsky and Bakhtin, amongst others, Holland and colleagues are able to tease out the underlying schemes that actors may use as well as how the same actors simultaneously identify themselves and others as certain social types. The perspective pays our attention to the contexts of meaning that people construct, contexts entailing a certain conception of characters, events, actions and artifacts. It focuses on how actors conceptually come to construct identities by placing themselves and their actions in relation to the socially-produced and culturally-constituted activities.

Moreover, the figured world perspective also accommodates social constructivist concerns with how cultural worlds are lived and practiced in social activities and interactions. Materially, people enact and perform their senses of self, thereby establishing certain social positions of influence and prestige in (and across) a figured world. “Figured worlds *happen*, as social process and in historical time” (Holland et al., p. 55). They are shaped in and through historically, socially and culturally constructed activities and interactions where people make sense of whom they are in relation to their interlocutors. Figured worlds are created and recreated by actors’

social engagement with each other in particular, localized and temporal spaces. These spaces provide people with social and cultural meaning. What is more, through participation in figured worlds people can come to reconceptualize what and who they are or change their self-identities, individually or as members of a collective.

To accommodate both culturalist and constructionist insights in a sociocultural framework of identity formation, Holland and colleagues build on and gain important insights from the works of Vygotsky (1978), Leontiev (1978), and Bakhtin. First, they argue that identities are mediated by cultural artifacts. Artifacts play salient roles for human action, higher mental functioning and development. Artifacts, whether one refers to their more conceptual dimensions (e.g., forms of knowledge), material (e.g., objects, instruments) or social dimensions (e.g., characters, events, activities), also provide means to evoke a figured world because of their association with certain people and social practices. The meanings that people learn to ascribe to these artifacts as typical of a figured world, and of the social types that populate them, “are part of collectively formed systems of meaning, products of social history” (Holland et.al., 1998, p. 36). Artifacts “have a history of development in relation to particular tasks undertaken by people in particular environments. Over time they come to embody and so impose a theory of the tasks to which they are put and a theory of the person(s) who will use them and be the object of them” (Holland, & Cole, 1995, p. 482).

By way of example, Holland and colleagues analyze how telling personal stories helped alcoholics to self-identity as alcoholics of a particular kind within the figured world of Alcoholics Anonymous self-help groups (AA). Through listening to others’ stories participants learned to tell their own story and think of themselves in new ways, thereby evoking the AA figured world and

making it personally powerful. Hence, learning to tell the stories worked as mediating devices or artifacts for their new self-understanding as persons always liable to drink again.

Another example they provide is how American high school women and men used gender stereotypes vocabularies (“nerd”, “cowboys”, “loose woman”, “fox” etc.) to position themselves and one another. The young adults’ discursive positioning was constantly framed within a figured world of romance, one populated by typical characters (boyfriends, attractive women), engaged in certain acts (dumping, falling in love) and motivated by certain forces (jealousy, love)

But as these examples also suggest, figured worlds are not just conceptual. They also ‘happen’ and become constructed through people’s participation in social practices and activities. Drawing on Leontiev’s concept of activity (1978) Bourdieu’s notion of field (1993) and Bakhtin’s dialogism, Holland and colleagues are also able to underline that figured worlds are always embedded in systems of social relations. Figured worlds are socially organized around positions of rank, status and influence and are populated by certain social personages. A positioning perspective is needed, to accentuate material aspects of the living of figured worlds. It helps us understand social interactional processes—the way in which people comprehend and enact their positions. For instance, AA members’ personal stories in AA meetings or youth’s use of gender discourses in peer interactions not only mediate identity but indexes claims to certain social relationships, positions, divisions and perspectives. Bakhtin’s dialogism is, therefore, included in their framework to offer a clearer understanding of how the use of cultural tools as part of action is always socially and dialogically embedded.

At the same time, social languages and speech genres “presume and depend (for their meaningfulness) upon a figured world ...” (Holland et.al., 1998, p. 171). The conceptual dimension of figured worlds better highlights how social positions—claimed in narratives or offered to each other in different ways in interaction—are made meaningful in relation to a figured world (e.g., being flirtatious might be considered appropriate and meaningful in worlds of romance, but cause moral transgression in other settings). Verbal behavior is often made typical for cultural moral worlds and is therefore crucial for understanding how people come to make sense of themselves and others.

Having described the figured world framework, which leads us to argue that a focus on both conceptual and material aspects of figured worlds can enhance our understanding of identity formation, it is now appropriate to point out how both these perspectives can deepen our understanding of identity formations in education. In the following I briefly outline some illustrative cases of how medical student’s identity formations could be usefully interpreted along these lines. First, I describe how sensitivity to the cues students use in their accounts of clinical training can enhance an analysis of how individuals actually position themselves in interviews. Simultaneously I make room for an account of meditational means through which their positions and identities are culturally claimed and identified.

Professional identity formations—a case of novice medical students

The extracts which follow are taken from a qualitative study of identity formations among novice medical students attending a PBL-inspired 6-year undergraduate medical degree program at a Norwegian University. The study involved repeated semi-structured interviews and focus-group discussions on how students begin to see themselves as medical students in real clinical

encounters with patients. The interviews carried out during the students' first year of training focused upon how they understood their roles in realistic clinical training in communication skills with real patients in primary care settings. During their second year of training interviews focused upon the same issues, only now the students were invited to compare their first year training with training in clinical examination skills, clinical reasoning, and case presentations in hospital wards.

Curriculum context

The medical curriculum is based upon integrated teaching, problem-based learning and interdisciplinary teamwork, and there is no division between pre-clinical and clinical phases. Students learn basic and clinical medical sciences throughout the entire curriculum and have early patient contact. Specific training in clinical communication skills starts early in their first term, consisting of lectures, role-playing exercises of professional consultations (which are videotaped and discussed with the teacher), and four communication training sessions with real patients. Located in the offices of primary care physicians, students (in groups of two) spent about four hours in each session practicing basic skills in communication, commencing consultation and establishing an initial rapport (when students also present themselves to patients as novice students practicing their communication skills), clarifying the reason(s) for the consultation, asking questions, gathering information, relating to patient's emotions, building relationships of trust, exploring patient's problems, ensuring confidentiality, and closing the session. After closing the session, students meet with their teacher-physician to summarize their patient conversations. Patient contact is limited to two visits to chronically ill patients in their own homes or in municipal housing for the elderly. Overall, the courses span several subjects from different medical disciplines: behavioral sciences, medical ethics and primary medicine.

These courses focus on the development of generic interpersonal skills and emphasize the importance of these skills for medical practice and patient satisfaction and healing.

In their second year, students learn about signal systems, circulation and respiration, immunology, anatomy and physiology, musculoskeletal systems, and pathology and microbiology. They also practice clinical skills in hospital wards. The purpose of the clinical training in their third term is to learn basic clinical reasoning. During nine sessions (2½ hours per session), through case presentations the students (in groups of 7 to 9, together with their teacher-physician), learn to identify the most important symptoms and findings from different organ systems, pose diagnostic questions, and practice examination techniques on hospital patients. In addition, they receive clinical lectures in hospitals, perform physical examinations on one another, and rehearse examination techniques in a skills laboratory.

This training continues during the fourth semester. Although students spend only seven 2-hour sessions in wards in their fourth term, they begin writing up the history, physical examinations, tentative results, formulations, and management plans for incoming patients. Although most are write-ups of patients who have already been admitted, students may begin writing original medical records for incoming patients. Symptoms and findings from patient histories and physical examinations along with laboratory results constitute the basis for discussions of medical cases between students and the attending physician. The overall goal for the second year is to train students to become capable of conducting independent general clinical examinations.

In the following I explore how student's comparisons of their first and second year of clinical training in their interviews with me could be seen as attempts to position themselves as clinical

learners. The analytical focus here is to understand how student's use of narrative cues places themselves in discursive spaces, i.e., how they produce various interactional positions in the course of their narratives. Their talk could also be considered as reports of their perceptions and understandings of the figured worlds created in the clinical contexts in which they participated, and of their place within these worlds. Investigating the narrative cues as cultural tools makes it possible to explore central aspects of the cultural world of medicine—as the students perceive it. It also provides insights into how the student's changing positioning and identification is mediated. The figured worlds invoked and created in two different clinical training sessions are not alike, and the examples of analysis given below illustrate two kinds of figured worlds that differ significantly. Their characterizing of second-year clinical training in hospitals stands in stark contrast to their first-year accounts of communication skills training in primary care physicians' offices.

In the first extract, a student, Laura, compares the two learning situations. In her first year she had:

L: [...] no idea what to say. It's a completely different way of thinking now. I remember that we—like fever for example, and sort of, what things looked like ... we didn't necessarily think about asking those questions. But now we can ask a lot more questions and dig into what to ask about, about coughing, for example. Ask whether anything comes up when someone coughs, whether there is any phlegm, whether the phlegm has any particular color, and many similar things. And then you ask about things for a reason. You don't just ask about the color of the phlegm just for fun. You ask such you can rule out a disease on the basis of it, or with the musculoskeletal system to try to locate where the pain is.

From the perspective of interactional positioning, Laura's account of her developing self-understanding as a knowledgeable medical student in second-year clinical training is analyzed as an act of positioning in discourse. Enhancing the analysis with the use of tools developed by Wortham, we can further explore the textual devices Laura uses for actually accomplishing this interactional position. For example, Laura's use of reference and predications provide significant information about how she evaluates her past and present self and participation in training. The different selves are characterized as differences between someone who previously "had no idea" when interacting with patients in physicians' offices, and someone who currently has a "completely different way of thinking" when approaching sick patients in clinical wards. Being able to ask relevant clinical and diagnostic questions was previously beyond her conceptual framework. Another device Laura makes use of is that of epistemic modalizers—expressing access towards the narrated clinical events. By claiming to become someone who is increasingly able to delve into relevant symptoms through clinical questions (whether coughing produced phlegm and if so, what color), and investigate possible differential diagnosis (i.e., asking for a specific clinical reason), she further positions herself in the storytelling event. By making recourse to these and other indexical cues, Laura explains the relationship between her first and second year of clinical training as a relationship of radical difference in context and activity. This use of cues emerged through several interviews, thereby assisting the interpretation of the aspects of contexts that Laura brought up as relevant in the understanding of how she voices her present and past self, accomplishing her interactional positioning.

Yet, Laura's use of cues in her account of self-in-training must be related to a figured world to gain meaning. Her use of cues indexes a culturally world of medicine, and provides her with

cultural resources that mediate her identity within this world. The resources evince an interpretive frame populated by identifiable characters—physicians, patients, and medical students—performing clinically in certain ways. This presupposed knowledge of what physicians do in clinical contexts constitutes the frame of meaning in which Laura interprets her actions. By claiming to develop mastery of central medical artifacts as opposed to her first year of communication skills training, she is increasingly able to participate legitimately in training. Laura does more than simply position herself in discourse as an increasingly knowledgeable student-professional; she also identifies herself as a privileged participator in a context where clinical and diagnostic competence and clinical discourse are highlighted as prominent features. The clinical forms of knowledge and skills are figured in particular ways in terms of the symbolic capital particular to that world.

The next example further highlights how combining a discursive and a culturalist frame sheds light on student's narratives. In the following extract, Michael further elaborates and evaluates the differences in context between the first and second years of clinical training, highlighting in particular the transformation of social relationships between characters as well as the nature of their social exchange. Comparing his first and second year of training he states:

M: It doesn't come close to being the same situation ... Now, we have a concrete agenda and you know what you are doing, what you see ... It's so far away from just sitting and chatting to a human being, who is just a human being. You don't feel that it is a patient role ... or even a medical student role either. You just sit there chatting to a human being that you don't even understand.

It is fun when you understand, yes, that's true, that is, when you look at an EKG or a blood gas and think that: "Oh that could be due to..." and the physician says: "that could be due to..." Of course, that's fun when that happens, that's not always the case, but it does happen. Of course it does, that in fact you know that you could have ... made the right decision in that situation then, that you realize that you really got this, and I would have done this the right way, probably.

With the assistance of Wortham's analytical tools, we can detect in the first quote how Michael uses spatial metaphors to refer to and characterize the differences between the first and second years of clinical training. To practice communication skills with patients in primary care "doesn't come close to", or is "so far away from" training and performing clinical examinations in clinical ward contexts that they constitute radically different activities and social interactions. Michael meta-pragmatically describes the nature of these differences as one where "you are just sitting and chatting to a human being" about subjects "that you don't even understand", as opposed to the present moment where he has "a concrete agenda". In the storytelling event he also frames the social relationships between himself and his patient interlocutors as changing from a non-medical to a medical student-patient relationship, thereby positioning himself in discourse as a medical student who knows "what you are doing".

However Michael's evaluative descriptions also constitute cultural means through which his discursive positioning is figured in particular ways. Two different frames of meaning are applied to make sense of his social participation in the first and second years. Referring to what supposedly is to be a professional situation of medical students practicing professional skills as "just sitting and chatting to a human being" about unfamiliar subjects, Michael reframes the

situation as one deriving from another cultural scheme, one of everyday conversations among regular conversation partners. This “lay world” of lay interlocutors was unable to appropriate Michaels’s sense of participation as a medical student in clinical activities. Michael found it impossible to frame his conversations with patients in physicians’ offices as professional conversations.

In the second citation, however, another figured educational context is activated. By directly quoting his inner speech as a medical student (“Oh, that could be due to ...”) and the outer voice of a professional (stating that these symptoms “could be due to”), Michael also does more than simply locate himself in conversational discourse through using quotes (which also function as an evaluative indexical). He also identifies and recognizes himself as a particular character developing the disposition of—and social identification with—the world of medicine. The activities of clinical reasoning are valued and imbued with a specific meaning. According to Michael, engaging in such activities, along with the presupposed artifacts of clinical knowledge and skills, produces a medical setting.

In the last extract involving student Kathy, we can further detect features of the student’s speech that function as means of signaling their social position as emerging medical students. These means—evaluative indexicals and quoted speech in particular—mark important differences and similarities.

K: In our first year we didn’t have a clue. Now it’s a completely different thing. Now we know things. Then you get ... we have the abdomen. Everybody (patients) has come with severe pain three to four days ago, and you think it might be... That is really the standard

procedure. You palpate—then she has a pressure on her left side, the wrong side, that is. Then you discuss findings with the physician; “Maybe this is more likely”. It does become that way; you discuss it more professionally in a totally different way. You evaluate your findings and consider what might be wrong ... a totally different task than what we did in our first (term). Then it was just talking.

Kathy assigns herself the voice of a medical student and a future physician. Her use of evaluative indexicals such as “you think it might be”, “that is really the standard procedure”, “you palpate...”, “you evaluate your findings and consider...” suggests an increased familiarity with the social language of someone becoming clinically competent. The way she meta-pragmatically describes her use of language supports this medical voice. Rather than “just talk” about things she does not understand, she now “discusses findings with the physician”, and hence “discusses it more professionally in a totally different way”. Both in narrative events and in the storytelling event, Kathy further demarcates her position as a medical *persona* by using direct quoted speech: “Maybe this is more likely.” Hence, Kathy signals an increased epistemic access to important medical events, thereby also establishing more professional relationships with patients and physicians.

Equally important, Kathy’s valuation of her emerging clinical vocabulary, that is her clinical reasoning abilities and ability to examine patients, are also culturally figured. Her emphasis on these competencies that position her in a certain way, is not an arbitrary indicator of unspecific cultural worlds but conveys intrinsic features of a specific cultural world, elaborated and taken up as constituent parts of her emerging professional identity. She increasingly develops a sense of herself as a medical *persona*.

The accounts from Laura, Kathy and Michael illustrate how several dialogues permeate their clinical training and activities. Despite the fact that communication skills training in realistic contexts is considered important for the early development of student's professional identities, they struggled to evoke a figured medical world and position themselves in relation to this world as clinical learners. Instead, an alternative lay-figured world was played out. The meanings that students ascribe to their first-year clinical activities stand in stark contrast to their second-year clinical training. In their second-year accounts, students socially and culturally construct a realm of interpretation whereby they identify and recognize themselves as becoming particular characters, imbued with biomedical and clinical knowledge and skills. They assign significance to certain acts, such as clinical reasoning, and case presentation discussions and value particular outcomes more so than others (e.g., produce clinical findings versus "just talk").

Discussion

In this article I have outlined and exemplified how a sociocultural approach to identity formation can be used to shed light upon student's self-identities in educational contexts and activities. The approach consists of the complementarities of a discursive-based theory of positioning through linguistic means and a perspective of identity as shaped in cultural worlds. Positioning theory and discourse theory offer important perspectives on culturally figured worlds by focusing on "the manner in which individuals' positionings is mutually emergent from particular discursive spaces" (Linehan, & McCarthy, 2000, p. 449). Supplementing this positioning framework with the contributions of Wortham and others provides a more systematic and fine-grained analysis of the actual devices people use to position themselves in discourse. Such analysis reminds us that people's cultural worlds take place as social processes. By using discursive devices in their stories of clinical training students not only represent narrated events and characters within a

figured world (i.e., physicians, patients), but also position and reposition themselves in the storytelling event in relationship to events and characters in this world.

In turn, a focus on the cultural world offers a complement to positioning theory by grappling with the storylines against which the meaning of characters acts and events is figured. By making recourse to these dimensions surrounding identity formations we gain a better understanding of the differences students portray between their first and second years of clinical practice. For example, we begin to grasp the seemingly negative evaluations of communication skills training as culturally informed evaluations. As we have seen, the kind of questions students asked patients in first year could not be seen as professional meaningful acts and markers of identity in the figured world of medicine. To conceive themselves as being characters in this world they depended on being able to use other artifacts as mediators for action and cognition. Biomedical and clinical knowledge, skills for clinical investigations, and a clinical vocabulary to discuss in case presentations are pivotal in a Vygotskian sense: they open up the medical world, constitute the means through which figured worlds are evoked, developed, learned and made socially and personally powerful. Emphasizing the conceptual dimensions of figured worlds and identity formation direct our gaze towards how people develop a sense of themselves as actors in a culturally figured world. The narrative cues used to indicate their social positions are not arbitrary but evoke a particular figured world where employing certain artifacts in particular contexts are seen as paramount in medicine and to their emerging medical self-identifications. Both the socially-generated and culturally-figured worlds are necessary for understanding the meaning of the student's words, phrases, and sentences in their accounts.

In Bakhtinian terms, the analysis shows the multiplicities of contexts, conversations and identities being accentuated in clinical learning activities. Professional identity formations cannot therefore be considered a self-evident by-product of learning authentic problems in “real” professional contexts of practice. The “same-context” conception of context adopted in PBL approaches disregards the interactional and social constructed facets of students’ training. Curriculum conceptualizations should incorporate these social and interactional perspectives, making the important claim that students’ growth and learning are situated and formed in the social contexts in which students participate.

These perspectives feature the dynamic, co-constructed, and relational aspects of learning and identity formation in figured worlds. They are also increasingly adopted in educational research on identity, agency and contexts in education. By way of example, high school teachers’ effect on the formation of students’ learner identities have been investigated (Rubin, 2007). Through demeaning discourses, and poor concepts of the students’ learning abilities, teachers offered the students uncomfortable identity positions from which to respond. Teachers’ positioning made it difficult for these students to learn. School teaching practices and discourses formed a figured world where social control was more important than conceptual learning, also impinging on the students’ learner identities.

Another example is a study of a bilingual school (Spanish/English) where the use of Spanish language, authentic caring relationships between adults and students and opportunity narratives became important artifacts for constructing success. The students were offered interactional positions where language and cultural heritages were used as resources to construct a narrative of success. These high school students also turned out as the most successful.

A third example concerns how mathematics students conceptualized their participation and interaction in different ways in different classroom settings (Boaler, & Greeno, 2000). In one setting, students were presented with what they perceived as a “narrow and ritualistic” perspective of mathematics, a teaching method using traditional and procedural pedagogies. In another setting, they were presented with a more “broadened” and preferred perspective on mathematics. Within the figured world of the first mathematics teaching, students refused to participate because the teaching countered their developing identification as responsible thinking agents. The figured worlds created in these classroom interactions made a significant impact on students’ identity production as teachers of mathematics and their choices about continuing or dropping out of further engagement with mathematics.

Similarly, I have sought to understand how medical student’s first and second years of clinical interaction created different figured worlds. Within the figured world of communication skills training, students struggled to identify themselves as clinical learners due to the perceived lay nature of “just talking” as a discursive artifact. By contrast, clinical skills training evinced a medical world proper whereby, through mediating means, students recognized and identified themselves as particular characters within a cultural figured world.

However, we need tools of analysis and methodologies that are able to highlight these issues in practical and empirical research. I have argued that Wortham’s method of analysis and the work of Holland and colleagues open up for an understanding both of the positions actually taken in situated interactional discourse as well as the cultural figuring of these positions within the figured worlds created in educational contexts. Further studies should draw our attention to these

and other “particular contexts of education and the identities that emerge (or do not) from these contexts” (Urrieta, 2007, p. 13).

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