Cultural Learning in Medicine

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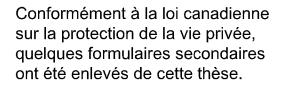reproduced without the author's
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Dedication

To Ken, without your ongoing support, both moral and technical, and patience this
project would never have been completed.

Abstract

Many papers have indicated that the medical school experience has a negative impact on the attitudes of medical students (Becker, 1958; Knight, 1981; Muller, 1984; Retzel, 1974; Rosenburg & Silver, 1984; Weinstein, 1983; Wolf, 1989). The social structure of medicine and the culture of medicine each make a significant contribution to the development of students as they develop their identities as physicians. This thesis attempts to enrich current formulations of the forces that influence the development of the medical student by utilizing literature and research from education, anthropology and psychology.

Individuals grow and develop by participating in a culture and simultaneously the culture evolves because of the participation of individuals. The medical culture exerts a powerful influence on the student to develop along acceptable trajectories within the medical culture.

A major task for medical students is to develop their identities as physicians. As they follow their trajectory through medicine they must reconcile past experiences with present ones as they create identities for themselves.

The medical school class forms a community of practice where significant learning occurs. Taken together, the different communities of practice of medicine form a constellation of communities, which constitute the culture of medicine. Medical students occupy a unique position not only within their medical class community of practice, but also within the communities they visit and within the overall culture of medicine. Understanding these social relationships may help us understand better the forces that direct the development of students.

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Changes to the medical culture can occur and this may be facilitated by changes in medical education. Hopefully this thesis can stimulate further discussions about the struggles that students face when exposed to the culture of medicine and the potential curriculum changes that could better support student development.

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Chapter One

Introduction

The idea for this thesis germinated when several interesting but seemingly unrelated concepts were presented during the core courses for the M.A.Ed. program at Mount Saint Vincent University. These concepts included: communities of practice, legitimate peripheral participation, cultural learning and the possibility of a moral decline of some students during medical training. By moral decline, I do not mean a decline into sociopathic behavior, but rather an increase in cynicism and pessimism, and a decrease in humanitarian feelings. This thesis will attempt to weave these concepts together to create a better understanding of the forces that contribute to the development of medical students as they proceed through medical training. By understanding these forces, we may better understand the process of moral and ethical decline among some medical students. Such an understanding may also help medical educators as they think about curriculum changes. This thesis will not provide a complete understanding of all the factors that influence the development of a student or provide all the answers to these questions, rather it will, hopefully, deepen our understanding of some of these processes that influence the development of students during training in order to stimulate further discussion.

Most students enter medical school with what has been coined as a pre-existing sound moral character (Christakis & Feudtner, 1993). However, during medical training, an inevitable change to their character occurs, as students develop their identities as

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physicians. What sorts of changes tend to occur to the students as they undergo medical training?

Many papers have been written indicating that the medical school experience has a negative impact on the attitudes of medical students (Becker, 1958; Knight, 1981; Muller, 1984; Retzel, 1974; Rosenburg & Silver, 1984; Weinstein, 1983; Wolf, 1989). Generally, as a student passes through medical school, there tends to be an increase in cynical attitudes and a decrease in humanitarian feelings (Kay, 1990; Knight, 1981; Muller, 1984; Pfifferling, 1980; Richman, Flaherty, Rospenda & Christensen, 1992; Rosenburg & Silver, 1984; Silver, 1982; Weinstein, 1983; Wolf, 1989). Feudtner & Christakis (1994) pose the question: do clinical clerks suffer ethical erosion? Part of their conclusions include statements such as "many students report dissatisfaction with their own actions and ethical development, students frequently observe and participate in clinical events that they find ethically questionable and many students feel guilty about their actions or are displeased with their ethical development" (Feudtner & Christakis, 1994, p. 678). These papers seem to indicate that the moral and ethical erosion that occurs in some students as they pass through medical education is generally seen as acceptable.

Some early papers attempt to formulate the dynamics of this moral erosion. Eron (1958) writes, "in fact some educators may argue that the increase in cynicism is adaptive in light of medical school and clinical practice demands and may enhance functioning in certain areas" (Eron, 1958, p. 26). Wolfe and Bulson (1989) feel that cynicism is the inevitable result of a naïve first-year student progressing through medical school and learning to cope with the stressful realities of medicine (Wolfe & Bulson, 1989). Knight

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(1981) and Muller (1984) show that becoming more cynical and less humanitarian is the only choice students have as they learn to survive the everyday life of medical training. These writers feel that students become more cynical in order to protect themselves and their self-esteem because they work in an environment that is described as demanding, inflexible and aversive (Knight, 1981; Muller, 1984). Another explanation postulates that the students' performance during the clinical years is more public and visible than in the first two years of medical school. Intimidation, humiliation, degradation and outright abuse from teachers, staff and residents are far more likely and probably significantly contribute to cynicism among students (Rosenburg & Silver, 1984; Silver, 1982).

Feudtner & Christakis (1994) argue that "the hierarchical social structure configures the ethical difficulties that medical students encounter – dilemmas that display some of the deep cultural paradoxes and ambivalence manifest in current hospital practice" (p. 6). They feel that the social structure of medicine, which places medical students at the base, leaves students vulnerable to ethical dilemmas and moral decline. Students' do-no-harm attitude, lack of medical knowledge, ignorance of the medical system, eagerness to become physicians and to be part of the team renders their belief system vulnerable to erosion. The authors continue to formulate their social explanation of the moral decline by stating: "the predicaments that students encounter on the wards appear as little episodes of socialization, joined together in an incremental process that is sustained and directed by the social context in which the dilemmas are encountered" (Feudtner & Christakis, 1994, p. 8). These authors also address the powerful culture of medicine and its influence on student development. They point out that medical culture guides the development of students by both encouraging some behaviors and

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discouraging others. For example, the medical culture encourages silence from its members, with respect to moral or ethical issues, while it helps students cope with the exhausting life of being a medical student. Feudtner & Christakis (1994) also point out that some students assume that because they are the most medically ignorant on the team they must also be the most ethically ignorant. When students witness a more senior team member behaving immorally, they assume that because they do not fully understand the medical implications of a situation, they must not fully understand the ethics.

The medical education literature does acknowledge the culture of medicine and the powerful influence it has on students. "Medical training at the root is a process of moral enculturation, and that in transmitting normative rules regarding behavior and emotions to its trainees, the medical school functions as a moral community" (Hafferty & Franks, 1994, p. 861). These authors also acknowledge that "an entire curriculum [in ethics] can in no way decisively influence a student's personality or ensure ethical conduct … any attempt to develop a comprehensive ethics curriculum must acknowledge the broader cultural milieu within which that curriculum must function" (Hafferty & Franks, 1994, p. 861). We also get an idea of the influence of medical culture on medical students from Pitkala & Mantyranta's (2003) paper. They observe that "medical students felt intense stress, but the majority of this may stem from strong emotional experiences rather than medical knowledge being absorbed. Students were afraid of being humiliated by hospital staff and they felt themselves to be outsiders" (Pitkala & Mantyranta, 2003, p. 155).

Thus, it appears that the current literature has identified that the social structure of medicine and the culture of medicine each make a significant contribution to the moral

and ethical development of the student. This thesis will attempt to enrich these formulations by utilizing literature and research from the domains of education, anthropology and psychology to gain a richer understanding of cultural and social learning; and try to apply these concepts in medicine.

Understanding these issues may provide us with a more powerful and dynamic understanding of the forces influencing the development of the individual student. This may help educators understand how to better develop curriculum that supports the development of students. By "caring as much about their ethical as their intellectual development, perhaps medical education could help students to complete their journey with their humanity and compassion intact" (Feudtner & Christakis, 1994, p. 11).

As a starting point for this thesis, I would like to describe an intense, personal experience that occurred during my internship (PGY-1) year. Understanding this experience may offer some insights into the structure and dynamics of the culture of medicine and the powerful influence this culture can have upon the development of its members. I will refer back to this experience throughout the thesis.

I have chosen to start with a personal experience as:

"you must learn to use your life experience in your intellectual work:
continue to examine and interpret it. In this sense craftsmanship is the
center of yourself and you are personally involved in every intellectual
product on which you work. As an intellectual craftsman, you will try to
get together what you are doing intellectually and what you are
experiencing as a person" (Wright Mills, 1959, p. 196).

Following this description, in Chapter Two I will discuss the cultural learning theories developed by Barbara Rogoff and Jaan Valsinor. Both theories emphasize how an individual develops by participating in a culture. The individual grows and develops by participating in the culture and simultaneously the culture changes because of the

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participation of the individual. Chapter Two will describe the manner in which a culture may influence the development of an individual. This chapter will provide a theoretical framework to help explain the manner in which the medical culture may exert its powerful influence on the developing physician. The scenario in Chapter One will serve to illustrate some of the salient points of this theoretical framework.

As students move through medical school to postgraduate medical training, along with gaining knowledge necessary to practice medicine, one of their tasks is to negotiate their personality or identity as a physician. An individual's identity can be "viewed as a nexus of multimembership" (Wenger, 1998, p. 160). Part of the work of identity formation is to reconcile seemingly conflicting experiences as learners move from one experience to another along their personal trajectory. Chapter Three will provide an account of how the student, as an individual, negotiates his or her identity as a physician.

An individual does not exist, grow and develop in isolation. Humans are part of many interconnected social units, which Wenger (1998) calls communities of practice. He feels that most significant learning occurs within these communities. Chapter Four will look at defining practice and community of practice. It will also look at the relationship between a community and its practice and the relationship of non-participation that an individual may develop within a community. This chapter explores· the relationship between individuals and their immediate environment and investigates how this relationship influences an individual's development.

As with individuals, communities of practice do not exist in isolation. They are able to establish relationships between themselves to form constellations of interconnected practices (Wenger, 1998). Taken together, the constellations, shape the

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culture of medicine. Chapter Five will discuss how communities within a constellation may connect. It will also investigate the types of encounters that can occur between individuals and a community of practice as well as describe the uniqueness of the periphery of a community of practice. This chapter will also emphasize how, for optimal learning to occur, the presence of a learner must be legitimate and the learner must fully participate in the community of practice they are visiting. It opens a new view on the medical world and provides a powerful way to understand how the culture of medicine can guide the development of the individual.

Chapter Six will involve applying all the material presented in the previous chapters, the psychology of the individual, communities of practice and medical culture, in an effort to develop a comprehensive, dynamic understanding of the development of the individual as they progress through medical training.

Chapter Seven will provide suggestions for generating a medical education curriculum that is based on the material presented in the previous chapters.

Experience Description

To begin, here is my story. I would like to describe in some detail an intense experience that had a significant impact on my development as a physician. For years following this experience I had a harsher, more critical and more cynical identity as a physician. I believe that each person who passes through medical training has his or her own set of experiences that contribute significantly to the development of their identity and that shape their moral character as a physician.

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It was July 2, 1993, a beautiful summer day in Ottawa. Although we had graduated from medical school only six short weeks before, it had been many weeks since my last clinical rotation because the last weeks of medical school had been spent preparing for and writing final exams. We had a six-week break between the end of school and the start of internship. I had made a conscious decision to take a complete break from medicine. Immediately after reciting the Hippocratic Oath at graduation, I left to travel for a month through northern Africa with some non-medical friends. While there, it was easy to forget about medicine and become immersed in the local culture. Grudgingly, I returned from Africa only a day prior to starting the PGY-1 (intern) year. On the eve of the first day of internship, my feelings oscillated rapidly between deep sadness at having left my friends in Africa and regret that, during the previous few weeks, I had removed myself from medicine to such a degree that I now felt incompetent.

As I entered the hospital that first day, I felt intensely uncomfortable in my new role as an intern. I felt poorly prepared to assume my new role and did not feel ready to function independently. In a feeble attempt to compensate for my lack of confidence, I had stuffed my lab coat pockets with quick reference manuals and assistive devices. My new name tag, which read Dr. M.M. Doering, seemed loud, pretentious and even a bit fraudulent. I did my best to hide the badge under the collar of my lab coat.

For my first rotation, I was assigned to Internal Medicine. I did not know anyone on this team to which I was assigned for the next month. They were a serious bunch, and after a quick round of introductions we started on patient rounds. The senior resident had been on-call the previous night and had had very little sleep. He complained loudly about the "incompetent" intern who was on-call with him last night. Nervously, I joined in the

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group laughter. As he described the intern's various inadequacies, I laughed but could not help thinking that I would have asked the same questions that the intern had asked.

I anxiously flittered about my first day, not doing much clinically, but chatting with the few old friends who I could find and trying to meet the new interns from other schools. I was desperately trying to find someone who felt as insecure as I did to commiserate. However, everyone else appeared confident, eager and prepared for their intern year.

Unfortunately, I had been assigned to call duty that first night. While on-call, the PGY-1s took care of ward patients, rather than those in the Emergency Room. That particular night, I was assigned to cover the Oncology, Gastrointestinal and Neurology Units. The previous year there had been a great debate as to whether it was appropriate for PGY-1s to cover the oncology floor after hours. The patients on the oncology ward tended to be extremely ill with complicated treatments. Due to their inexperience, interns were often overwhelmed when trying to care for these patients while on-call. Status quo was upheld, however, and the decision for PGY-1s to continue to cover this ward while on-call continued. The senior on-call medical resident on the oncology ward was to prioritize helping the PGY-1s after hours. That night, there were no hand-over rounds because the oncology team was in a hurry to get out of the hospital to attend a party at a consultant's home.

My evening started uneventfully with a pizza dinner for all PGY-1s in the hospital lounge. I was relieved to find that the senior on-call resident was a friend, whom I felt comfortable asking for help. I knew he would help if I needed it. This little bit of information provided me with some security and relieved my tension significantly. The

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atmosphere was light and festive and I had just started to relax a bit and to enjoy the atmosphere when my pager went off. I held my breath hoping it was someone requesting a Tylenol or a laxative order. Unfortunately, it was the oncology charge nurse requesting my presence immediately on the ward. My heart sank. I looked wistfully at the pizza as I headed out the door. On my way to the ward I patted my lab coat pockets, feeling some comfort at their bulk. However, I could feel the tension building in my stomach and felt an uncanny sense of impending doom.

As I walked to the oncology floor, I started to feel anger toward the nurse for requesting my presence on the floor and for not having dealt with the problem herself. I also felt anger toward the patient for getting sick on my shift, instead of half an hour before when the oncology team was still covering the ward.

After stopping for directions to the ward, I rounded the corner to my destination and saw two things that signaled certain disaster: a crowd of people at a patient's door and a crash cart. Immediately, I broke into a cold sweat and desperately realized that my pocket handbooks were going to prove woefully inadequate for this situation. I felt panic rising in my stomach and my mind had trouble focusing on the situation at hand. I had never felt such intense ambivalence: I could either run away from the problem and from medicine forever or I could move toward the room and try to deal with the situation. Strangely, images of white sand beaches and turquoise water of Africa slid involuntarily into my mind. I struggled to force the comforting escapist images from my mind and to move my rooted feet toward the charge nurse. As she spoke I had trouble focusing and had to force myself to attend to what she was saying.

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The nurse rapidly gave me a sketch of the situation. A 35-year-old female, with bronchogenic carcinoma, and her husband were there from Northern Ontario to pursue both chemotherapy and radiation therapy. The CT scan of her chest had revealed a large tumor, which was situated dangerously close to the pulmonary artery. The treating team was fearful that the tumor would erode into the pulmonary artery before they would be able to shrink the tumor with treatment. As I listened, my anger extended toward the oncology team, who had not taken ten minutes to tell me about this patient.

That evening during routine care, a nurse had suctioned the patient to help clear some phlegm that she was having difficulty expectorating. As the nurse suctioned, a tinge of bright red blood had appeared. As she continued to suction, the amount of blood rapidly increased. Now the patient was coughing copious amounts of bright red blood. The nurse had stopped suctioning the patient, and now the nursing staff was waiting for my instruction. The charge nurse had already paged the senior resident who was to be my back-up through this situation. But he was running a cardiac arrest in another part of the hospital and would not be available for a while. He reassured the charge nurse that I was quite competent to manage this situation on my own. I started to despise the nurse who had started suctioning the patient.

I could hear and sense the chaos in the room. The husband, who had been present since the nurse had started to suction his wife, was desperately pleading with the staff to do something quickly. The nursing staff and respiratory technicians were falling over each other trying to help the patient. The husband and patient had been prepared for the possibility that the tumor could erode into the pulmonary artery. Thankfully, the patient

had given a DNR order if this occurred. Knowing this, I did my best to ignore the husband.

As I stepped into the room, I felt a sense of absolute and desperate panic. At no time during my medical school years had I been prepared for a situation such as this. No past experience was even remotely close to this situation. I had absolutely no idea how to proceed. My pocket manuals did not provide any useful advice.

The patient was coughing. Each cough produced increasing amounts of bright red blood. There was blood everywhere. As I took in the horrifying scene, the husband spotted me and clung to my lab coat sleeve pleading for me to help her. The very real possibility of her dying had not yet entered his mind. I continued to do my best to ignore him, mostly because I had no idea what to say to him. I watched as she coughed twice more. Her coughs were becoming feebler, but still produced bright red blood. She struggled to draw in air, but it was increasingly difficult for her to draw in adequate amounts of oxygen.

Even though I was physically present at this scene, I felt as though I was not there. It was hard to focus and think. I wanted to shrink into a corner, but the nursing staff did not allow this to happen, as they demanded direction. The nursing staff had long ago done everything that I could have suggested. Some of those nurses had twenty-five years experience on the oncology ward. They should have been telling me how to run the situation. However, protocol would not allow for that. I knew the nurses were aware of my anxiety and my level of inexperience and yet they still looked to me to lead this situation. I felt desperate, hopeless, helpless and incompetent.

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Suddenly, I thought of the Intensive Care Unit (ICU). There was always a senior resident on-call there. I asked the nurse to page the ICU resident STAT to the oncology floor. Meanwhile, the patient continued to cough blood, her respirations were becoming very weak. Simultaneously, her pulse was becoming weak. Thankfully the ICU resident arrived quickly and I gave him a short summary of the situation. He quickly assessed the situation and took me aside, out of hearing distance from the situation. He looked me intensely in the eye and told me "Everything has been done; the patient is as good as dead. There is nothing else you could possibly do for her, except declare her dead." He turned on his heel but before heading back to the ICU, he turned to me and said, "Don't ever waste my time again," and then he was gone. This entire interaction took less than one minute to complete.

I returned to the patient's room and watched. There was nothing to do. My anxiety and panic had been replaced by heavy feelings of hopelessness and helplessness. I could have left, but I found it impossible to do so. I watched from the corner of her room as her life slipped away. I watched as her husband started his painful mourning process. The nursing staff called on me again to declare her dead.

I left the room after the declaration and was quickly called to a different part of the hospital to attend to another matter. I had only a moment to take a few deep breaths and attempt to gather my thoughts enough to move to the next situation. In this bustling hospital atmosphere, I never felt more alone or unsupported. During these few quiet moments, I tried to clear my memory of this horrible event, hopefully to never think about it again. During those moments, I decided to never see a family member while on-call unless the patient was dead. I felt the treating team could better attend to family

matters. I would never call the ICU or the senior resident again. I had to survive. I was

completely and utterly humiliated by the interaction with the ICU resident. I was

embarrassed because I knew the ICU resident would laugh at me at rounds in the

morning.

The next morning at rounds, the case was discussed briefly. The attending staff

commented that the patient had died sooner than he had expected; however, her death

was inevitable as her tumor was not responding to either chemo or radiation therapy. It

was probably easier for the family that she died sooner rather than later. Quickly, the next

patient's history was presented and there was a long discussion concerning various

chemotherapeutic cocktails that could be effective for this patient's tumor.

Immediately after the event, I had wanted to talk with peers and staff about the

event. I wanted to discuss my feelings of panic, desperation, responsibility and loss. But,

at rounds the next morning, I no longer wanted such a discussion. By that time, I wanted

to avoid any mention of the whole situation. It no longer mattered to me. She became a

bronchogenic CA, who had failed to respond to treatment. Her aggressive tumor had

eroded into her pulmonary artery and she had bled out. Everything had been done to save

her but she had expired. I had done everything correctly, that was all that mattered. I

needed to go on to the next day and the next call. More importantly, I needed to survive

this internship experience. I had twelve months that I needed to get through. The first day

of the first month was over.

Ten years after this event, I periodically pause to reflect upon it and its aftermath.

My attitude became much more cynical following this event. I became very aloof, distant

and cold in my interactions with patients, their families and senior residents while on-

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call. I rarely asked for help and probably for this reason came to be known as a good and competent intern. I also laughed at patients and peers during team rounds in an effort to be a part of the team. I never challenged or questioned anyone more senior than myself, regardless of what I saw them do or heard them say.

As I try to understand, not only this event, but also the process of identity development during medical training, I try to comprehend not only the dynamics of the individual, but also the dynamics of the culture and the relationship between the individual and the culture. The first important step of the following investigation involves an exploration of cultural learning theories. It is essential to understand the fundamentals of theses theories as they shed valuable insight into the ways medical culture influences the development of an individual. So please, follow in my exploration of these theories as it is an important journey in our effort to understand the development of medical students.

Chapter Two

Cultural Learning Theory

In this chapter, I draw upon the work of Barbara Rogoff and Jaan Valsinor to explain cultural learning theory. Cultural learning theory, I contend, offers important insight into the dynamics of learning in medicine. Understanding these concepts, I suggest, also enriches our understanding of the moral development of medical students. Both Rogoff and Valsinor have written extensively about cultural learning theory. Their theories not only complement each other but also work together synergistically. While preparing for this thesis, I was presented with Valsinor's work first and Rogoff's much later. As I read Rogoff's work, I discovered that I was better able to understand the work of Valsinor. Similarly, Valsinor enhanced my understanding of Rogoff's writing.

How do these authors describe the concept of culture? Commonly accepted and shared meanings, practices, morals, standards and cultural tools describe a culture. Rogoff (2003) introduces her theory of cultural learning by describing her ideas regarding the development of an individual. She believes that human development does not occur in isolation, but rather as a social phenomenon. Human development transpires through ongoing interactions between the developing person and other people, and between the developing person and cultural tools. She further describes development as a never-ending journey that continues throughout life (Rogoff, 2003); that is, as a process that is not completed at the end of childhood or adolescence, but rather ongoing.

She further describes development as "a process in which people transform through their ongoing participation in cultural activities" (Rogoff, 2003, p. 37). The

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individual cannot merely be a passive observer, but rather must become actively involved with the traditions, tools and nuances of the culture for development to occur. By being involved with and interacting with culture, the individual gradually understands, accepts and adopts the traditions and practices of the culture. "A person develops through participation in an activity within the culture, changing to be involved in the situation at hand in ways that contribute both to the ongoing event and to the person's preparation for involvement in other similar events" (Rogoff, 2003, p. 275). During the process of ongoing participation in the culture, the individual is confronted with and comes to know and understand the tools and practices of the culture. While the individual actively participates in a culture, the culture guides the individual's development. This last concept will be further discussed later in this chapter when Valsinor's (1998) work is presented.

Rogoff (2003) also describes a possible mechanism through which cultural change may occur. At the same time as an individual develops by ongoing, active participation in a culture, the individual's development simultaneously contributes to the evolution of the culture. The individual and the culture mutually define and constitute each other as they function and develop simultaneously. Rogoff refuses to accept the common view of individual development without a culture, or cultural evolution without the contribution of individuals. The root of Rogoff's theories is that "culture is not an entity that influences people, rather people contribute to the evolution of cultural processes and cultural processes contribute to the development of people" (Rogoff, 2003, p. 54). Culture provides a space for development.

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Jaan Valsinor (1998) also developed a cultural learning theory, which he presents in his book *The Guided Mind*. Definite similarities exist between Valsinor's (1998) and Rogoff's (2003) ideas of cultural learning. Similar to Rogoff, Valsinor understands human development to be both a social process and an ongoing process of participation in a culture. Valsinor not only helps clarify Rogoff's ideas, but he also adds some new elements which helps enrich Rogoff's formulation.

Valsinor (1998) uses the term co-constructionist to describe his theory of social development. Co-construction is the process of development of the individual under the canalizing guidance of the culture and the concurrent evolution that occurs in the culture as the individual develops. Canalizing refers to the process whereby the culture guides development by limiting the number of possible developmental trajectories that are available to the individual. By limiting options, the outcome is more expected or predictable. This concept will be developed later in the thesis. Similar to Rogoff, the co-constructionist model suggests a "mutual constitution of the developing personality and the collective culture" (Valsinor, 1998, p. 113). Valsinor, like Rogoff, does not visualize development of the individual without culture, or the development of culture without the individual.

Both of these theories involve some basic assumptions (Rogoff, 2003; Valsinor, 1998). First, the theories assume that transmission between the individual and the collective culture is bi-directional. Information flows from the individual to the culture and from the culture to the individual. The individual and the culture may each alter information as they use it in the process of development. This altered information is then in turn available to both the individual and the culture. Second, both theories assume that

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development proceeds forward in irreversible time. Although the past can have a significant influence on both the present culture and the individual, it cannot be altered or influenced by current development. The past cannot be changed. The third assumption is related to the second. Both theories assume that development is a feed-forward process. Each generation does not start anew; rather, each generation inherits from previous generations all the elements of their culture (Rogoff, 2003). Each generation has the opportunity to modify or transform any or all elements of the culture before they pass it to the next generation. The elements that are inherited represent earlier solutions to similar problems by other people, which later generations may modify and apply to new problems, extending and transforming their use. Fourth, both theories assume that neither the individual nor the culture is static. Change occurs over time, both within the individual and the culture, such that the stability of both is maintained (Valsinor, 1998).

Valsinor (1998) provides a framework for understanding how a culture guides the development of an individual. As an individual develops "there exists a multitude of possible developmental trajectories at any given time" (Valsinor, 1998, p. 29). Therefore, it appears that development can occur in any possible direction at any given point in time. However, some of the trajectories are only potential because at certain points in development they are constrained by the culture. At another point in development, a different set of developmental trajectories may be constrained by the culture. In this context, Valsinor defines constraint narrowly, to refer to a particular region of the developmental field that has been determined by the culture to be unacceptable for the individual to enter or occupy.

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Thus, in reality, development cannot occur via any trajectory, or "within a field of indeterminate possibilities" (Valsinor, 1998, p. 51). When a culture or individual has determined a certain path of development as not being acceptable, the individual normally avoids this trajectory, or if embarked upon by the individual, they endure great stress while on this course. Similarly, the culture may strongly enable development along certain trajectories. Thus, the culture canalizes development down trajectories that are tolerable within the culture (Valsinor, 1998).

Constraints are co-constructed both internally within the individual and externally within the culture (Valsinor, 1998). Thus the culture may determine some developmental trajectories to be unfavorable or unacceptable. Similarly, as part of their own internal conversations, individuals may determine some development trajectories to be unfavorable or unacceptable.

According to Valsinor (1998), constraints exist as temporary mechanisms to organize and direct the process of development. Certain constraints may be appropriate and necessary at some points during development but inappropriate at others. For example, it is inappropriate for third-year medical students to make clinical decisions independently and they are actively discouraged by the medical culture from doing so. In fact, they are not permitted to write an order on a patient's chart without it being co-signed by an intern or resident. However, it is appropriate and encouraged for residents, especially in their senior years, to function independently and to seek supervision only when they feel it is necessary.

Constraints are not static, but dynamic, although they remain relatively stable. Constraints are continuously being created, modified and outdated (Valsinor, 1998). Over

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time, as constraints are applied during the process of development, they may be adapted by individuals and by the culture (Rogoff, 2003). Changes in constraints do not happen quickly but tend to occur across generations to ensure that stability is maintained.

There are several characteristics of constraints constructed by culture that may seem obvious but merit some discussion (Rogoff, 2003; Valsinor, 1998). Constraints are sometimes very overt, in fact so overt that they have been written down, made concrete or reified. These constraints are presently not negotiable; however, they may serve as stimuli for discussion. For example, it is wrong to murder and most cultures have written a law forbidding this behavior. More often constraints are not so obvious, rather they are very subtle and it is only by ongoing participation in the culture that an individual is able to understand and negotiate the constraints that are a part of that culture. Similarly, the trajectories that are constrained may not be obvious. Rather, it is by ongoing participation in a culture that an individual understands and learns which trajectories are enabled and which are constrained.

Let us return to the scenario presented in Chapter One in an effort to understand some of the points more clearly. After my difficult experience on-call, initially I wanted to discuss the situation. I did not wish to discuss the medical aspects of the case, but rather to air my feelings of hopelessness, helplessness, despair and humiliation. There was no time to engage in such a discussion. The milieu in which I was working did not allow me to take time to reflect on the experience. My presence was immediately required elsewhere to care for another sick patient. The next morning at rounds, I was asked if there were any medical questions surrounding the case. The attending physician acknowledged the horrific event very briefly and then quickly moved on to the next case.

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At no time was I asked how I was coping with the event. A senior resident offered me some advice, which was to not spend too much time or energy ruminating about the case, as there was nothing else I could have done. I was quickly learning that discussion surrounding the medical facts of a case was encouraged but discussions and reflection surrounding feelings of inadequacy, hopelessness and helplessness were discouraged.

Rogoff and Valsinor provide us with some understanding as to the manner that the culture may influence the development of the individual. However, the theories present thus far leave two related questions unanswered. First, how does communication occur between the culture and the individual? Second, how can the individual contribute to changes in the culture? Both of these questions will be addressed in Chapter Three.

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Chapter Three

The Development of the Medical Student

Chapter Three further explores cultural learning in medicine and the development of medical students during their medical training. In this chapter, I take a closer look at the individual to establish how communication can occur between the individual and the culture and then how an individual may contribute to cultural change. I then examine one of the important tasks of medical school, which is to develop an identity or personality as a physician. Gaining a better understanding of these issues, I suggest, places us in a better position to understand how the culture of medicine affects individual development and provides a good starting place to think about curriculum changes that may prepare students for their experiences in the medical culture.

Jaan Valsinor (1998) offers us some insights into the mechanism whereby communication may occur between the individual and the culture. He describes the process as internalization/externalization. As individuals participate in a culture, they internalize, or take in, current cultural values, norms, codes of conduct and constraints. Also, they come to know, understand and internalize the tools that are used by the culture. After being internalized, the material may be assimilated into the individuals' already existing intrapsychological schema (their understanding of the world). The individuals develop their intrapsychological schema as they participate in experiences throughout their lives. This process of internalization and modifying schemata is ongoing and occurs as the individuals participate in their culture.

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As individuals participate in the culture, they may externalize some of their internal understanding into the environment. Externalization exposes the projected internalized material for potential criticism from the entire community into which it was projected. As the material is criticized, not only the externalizor, but also other members of the culture, may re-internalize the modified material. Gradually, as more and more individuals re-internalize the newly modified material, the majority of the culture internalizes the new material leading to cultural change. The internalization/ externalization cycle is continuous and never ending. It appears to be not only the mechanism of communication between the individual and the collective culture, but also part of the process of cultural evolution.

The internalization/externalization theoretical model clarifies how personality is not merely a description of an individual's character traits and modes of interacting with others and the environment. Rather,

> "personality is gained through interaction and communication with persons and objects of the social and material environment and is based on the structures of the organism. Personality is the result of the processing and managing of external reality (environment) and internal reality (organism) at all points in time during the lifespan" (Hurrelmann, 1988, p. 45).

It is important to recognize that personality is a "means for the individuals to relate to the environment and not an ends to itself" (Valsinor, 1998, p. 11).

A child develops a personality and is socialized during childhood, but the "socialization experienced during childhood cannot prepare the child for all the roles they are expected to fill during later years. Socialization also occurs in adulthood and within large scale bureaucratic organizations" (Coombs, 1978, p. 39). Socialization does not occur during a single phase of development, rather it is an ongoing process.

One of the major tasks of medical school is to allow the student to negotiate his or her personality or identity as a physician. Identity formation can be conceptualized as a process of professional socialization. Professional socialization is defined by Merten, Reader and Kendall (1957) as "the process by which people selectively acquire the values and attitudes, the interests, skills and knowledge, in short the culture current in the groups they are or seek to become a member" (Merten, Reader & Kendall, 1957, p. 287). It is a process whereby an individual "internalizes knowledge, skills, values and behaviors deemed appropriate by socializing agents" (Coombs, 1978, p. 14). Wenger describes identity by how we use it in our everyday experiences: "identity is an experience and a display of competency ... a way of being with the world" (Wenger, 1998, p. 151). Identity in this sense is socially defined, as it is acquired and defined through interactions with others.

How can we conceptualize the process of identity development? Each medical student follows his or her own trajectory not only through life, but also through their years of medical school and postgraduate medical training (Wenger, 1998). Wenger defines a trajectory as "not a path that can be foreseen or charted, but one continuous motion – one that has a momentum of its own in addition to a field of influences. It has coherency through time that connects the past, the present and the future" (Wenger, 1998, p. 154). Each student follows his or her own unique trajectory into medicine and through medicine. Each student must construct a unique identity while traveling along this trajectory. Hafferty and Franks (1994) note that medical students arrive at medical school with pre-established morals and values, and these values and morals are challenged and modified upon completion of medical training. In fact, it is necessary that these morals

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and values be challenged and altered as the students become assimilated into the culture of medicine.

As students follow their trajectories through different communities of medicine, they not only learn new skills and knowledge, but are also confronted with new situations and ideas. Some of these new experiences may resonate with past experiences and some may be at odds with previously held beliefs, knowledge and values.

Students have to work creatively to find a balance between their previously constructed intrapsychological schemata and their experiences in medicine. Somehow they must reconcile previously constructed understandings of the world with current experiences (Wenger, 1998). The job of reconciliation may be the largest challenge students face as they move between the different communities of medicine. Even though most of the experiences occur in social contexts, the careful work of reconciliation is a very private experience. Each person is unique, and the communities to which they belong are multiple and diverse so each student must complete his or her own reconciliation.

Wenger (1998) notes that our identity is not defined by membership in one community. "An identity is more than a singe trajectory; it should be viewed as a nexus of multimembership" (Wenger, 1998, p. 161). A medical student is a member of multiple communities, for example, family, friends, cultural groups and now medicine. Part of the work of identity formation is to reconcile seemingly conflicting demands that are presented as a student weaves his or her own personal nexus, which now includes the trajectory of medicine. Hafferty & Franks (1994) notes that medical students have multiple, diverse roles, and often these roles are conflicting. Also, they may receive ill-

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defined or contradictory information about medicine, and their place in medicine. These factors make reconciliation for medical students a very difficult process.

Now I would like to return to my own experience, described in Chapter One, to make some of the points presented in this chapter clearer. I entered medicine as a fairly naïve individual. I came from a small farming community and attended a small maritime university for my undergraduate studies. I had constructed intrapsychological schemata that authority figures were friendly, concerned and helpful. This understanding had been re-enforced during medical school when residents were helpful and friendly. Also, we were actively encouraged to participate and to ask for help.

I had constructed the image of a physician that could help anyone, the physician just had to work hard and have enough knowledge. I had not seriously considered death as a viable outcome to patient care. I had not had much opportunity during my medical studies to discuss my identity as a physician.

Both of these beliefs met with a significant challenge that first night on-call, July 2, 1993. Firstly, my image of senior residents as friendly, available and helpful was shattered. Also a death occurred while I was caring for a patient. My image of myself as a physician and of the medical social structure was destroyed. Somehow I had to reconcile my past understandings with my current situation and still be able to function.

I did not have an opportunity to discuss my new conundrum, so I constructed new understandings in an effort to make sense of my world. I felt that senior residents were unhelpful, harsh, critical and to be avoided. Also, I lost all confidence in myself as a physician. I assumed that I was both incompetent and incapable. I felt overwhelmed with the role I had to play in medicine and felt there was no one to help me. I felt medicine

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was a harsh, cruel world and there were few patients that we could help. These realizations significantly contributed to an increase in my cynicism.

If I had taken the time to air some of theses concerns and feelings, that is externalized them, they may have been modified by the culture around me. Perhaps, I may have realized not all seniors are critical; in fact, most are helpful. Also, I needed to construct a more realistic representation of myself as a physician, which may have been achieved more quickly by discussion.

Instead, I carried my new understandings of the world and my new cynicism to my next experiences. As I continued to have difficult experiences, my cynicism continued to increase and my image of myself as incompetent solidified.

While Chapter Three has provided us with a better understanding of cultural learning in medicine, Chapter Four will take a closer look at the social structure of medicine, and try to understand how it may contribute to the development of physicians.

Chapter Four

The Community of Medicine

Chapter Three has helped us to understand that one of the major tasks students must complete during medical school is to develop their identities as physicians. Chapter Four examines the social structure of the culture of medicine. A better understanding of the social structure of medicine may enhance our understanding of learning as it occurs in the culture of medicine and how the culture of medicine may influence the development of the student.

This chapter first discusses the concept of a community of practice (Wenger, 1998). Then the chapter examines how learning takes place within that community of practice. Finally, this chapter applies the community of practice concept to medicine generally and specifically to the scenario presented in Chapter One. Most of this chapter draws on the ideas of Etienne Wenger as presented in his book *Communities of Practice: Learning, Meaning and Identity* (1998).

A logical place to start this chapter is with a discussion of practice (Wenger, 1998). Practice describes the process of negotiating the meaning of everyday life experiences. In other words, practice is a means to make sense of, or understand, everyday events. Wenger believes that individuals engage in practice so that "we can experience the world and our engagement with the world as meaningful" (Wenger, 1998, p. 51). Rogoff (2003) feels the purpose of negotiating the meaning or purpose of practice is to have a better appreciation of the human condition.

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Wenger (1998) considers practice, or negotiation of meaning, to be a process that is dynamic and ongoing. Practice involves the interaction of the dual processes of participation and reification (the concepts of participation and reification will be discussed in the next few paragraphs). Participation and reification constitute a duality, not a spectrum. They represent neither a dichotomy nor are they opposites. They are in constant interplay and "imply" each other (Wenger, 1998, p. 66). Wenger's description of participation is similar to that of Valsinor and Rogoff but also enhances it.

Wenger (1998) describes participation as the experience of developing, not in isolation, but as engaged and active members of a social enterprise. It is both a social and personal experience. Participation is a complex "process that combines doing, talking thinking feeling and belonging. It involves our whole person, including our bodies, minds emotions and social relations" (Wenger, 1998, p. 56). Participation involves verbal and non-verbal interactions between an individual, peers and cultural tools, but it may also involve people working alone, as they try to understand the meaning and significance of events surrounding them. As individuals participate in a social endeavor, they may use these interactions to help develop and define their identity.

How are humans able to partake in the process of participation? Humans have a unique ability to mutually engage, that is, to simultaneously attend to the same stimuli. The ability to mutually engage allows humans to interact with each other, form social units and participate with each other (Tomasello, 1999). It allows humans to understand other individuals as being separate from themselves with their own boundaries and mental lives, but yet are "like themselves" (Tomasello, 1999, p. 5). When we engage with others we somehow are able to see ourselves in others, and this is what we address

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(Wenger, 1998). Humans, also have the unique ability to share attention; that is, to view a situation through the eyes of the other individual. This ability to share attention is a powerful form of social cognition that allows learners not only to copy and learn from the actions of another, but also to place themselves "in the mental shoes" of another and understand to what end the other is working toward (Tomasello, 1999, p. 6). It gives humans the ability to negotiate meaning and to participate in communities of practice.

Reification describes the process whereby our experiences are given a concrete form (Wenger, 1998). The concrete form may be a law, a treatment guideline, a code of conduct or a constitution. When something is reified it creates a focus around which further negotiation of meaning (or participation) can become organized. For example, before a trainee can start independent practice, they must pass a licensing exam. The Royal College of Physicians and Surgeons has reified this in their constitution. However, the form that these exams should take and the value of these examinations is a constant source of debate among members of the College. This is an example whereby something that is reified serves as the stimulus for discussion by those participating in the College. Participation in these ongoing discussions may lead to a change in licensing examinations.

As a person participates in a group with a common practice, he or she learns and discovers new things.

> "Because learning transforms who we are and what we can do, it is an
> experience of identity. It is not just an accumulation of skills and
> information, but also a process of becoming – to become a certain person
> or conversely, to avoid becoming a certain person. Even the learning that
> we do entirely by ourselves contributes to making us into a specific kind of
> person. We accumulate skills and information, not in the abstract as ends
> in themselves, but in the service of an identity. It is in that formation of an

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identity that learning can become a source of meaningfulness and of personal and social energy" (Wenger, 1998, p. 215).

This leads Wenger to conclude:

"an identity, then, is a layering of events of participation and reification by which our experience and its social interpretation inform each other. As we encounter our effects on the world and develop our relations with others, these layers build on each other to produce our identity as a very complex interweaving of participative experience and reificative projections. Bringing the two together through the negotiation of meaning, we construct who we are. In the same way that meaning exists in its negotiation, identity exists – not as an object in and of itself – but in the constant work of negotiating the self. It is in this cascading interplay of participation and reification that our experience of life becomes one of identity and indeed of human existence and consciousness" (Wenger, 1998, p. 151).

Let us now move to a discussion about communities of practice. Wenger (1998) describes three aspects of the relation between the community and the practice "by which the practice is the source of coherence of the community": mutual engagement, joint enterprise and a shared repertoire (Wenger, 1998, p. 75).

The first dimension Wenger (1998) describes is mutual engagement. Practice "exists because people are engaged in action whose meanings they will negotiate with one another" (Wenger, 1998, p. 73). As the community works together as a unit to negotiate the meaning of an action, a sense of unity develops that may help a group that is mutually engaged evolve into a community of practice.

"The relations among the participations in a community are varied and multifaceted. Different participants have different roles and responsibilities, and their relations may be comfortable or conflicted or oppressive. Their relations involve personal connections and procedures for resolving inevitable conflicts in ways that attempt to maintain relationships and the community. They engage in conflicts, disputes and intrigues, as seems inevitable when people's lives are connected" (Rogoff, 2003, p. 80).

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Even though the group is mutually engaged, each person finds his or her own place within the community and develops his or her own identity within a community of practice. Belonging to a community of practice does not demand homogeneity among its members; rather, they must find a manner to negotiate their new own unique identity as they work together as a community (Wenger, 1998).

The second feature of a practice as a source of community coherence is the negotiation of a joint enterprise (Wenger, 1998). The participants define the enterprise by jointly pursuing a goal; that is, the goal they are seeking together as a group defines the enterprise. Together, the community's participants must find a way to negotiate their joint experience. "A community involves people trying to accomplish some things together, with some stability of involvement and attention to the ways they relate to each other" (Rogoff, 2003, p. 80).

The third source of coherence for a community is shared repertoire (Wenger, 1998). "The repertoire of a community includes routines, words, tools, ways of doing things, stories, gestures, symbols, actions or concepts that the community has adopted in the course of its existence and has become part of its practice" (Wenger, 1998, p. 83). "A community develops cultural practices and traditions that transcend the particular individuals involved" (Rogoff, 2003, p. 83).

Let us now try to understand how a medical school class forms a community of practice. For medical students, the initial step is to gain legitimate access to a medical school class by being accepted into medical school. Once accepted, students may become part of the community of their class as they start the process of becoming doctors; that is, as they participate in the process of negotiating their identities as physicians. The medical

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school class is thought to initially "organize in response to stress in order to provide emotional support to its members" (Shapiro & Lowenstein, 1979, p. 80). Together the class becomes mutually engaged in sorting out problem-based learning scenarios, discussing ethical dilemmas, commiserating about workload issues and supporting each other through various social dilemmas. As the class members begin the work of negotiating their identities as physicians, they start to gel into a community of practice. The medical class provides a safe, supportive environment where the members, both individually and as a community, can embark upon the process of negotiating their identities as physicians.

The class is not a uniform entity as there are many opinions on every matter (Shapiro & Lowenstein, 1979). Friends and loyalties shift over time. However, students tend to bond together and function as a cooperative because they have common goals and experience similar stresses (Shapiro & Lowenstein, 1979). As a class forms, its members become aware of their individual differences, such as differences in religion. As time proceeds, and the class shares common powerful experiences, the unique characteristics of individuals become hazy and camaraderie emerges (Shapiro & Lowenstein, 1979). "The members of an incipient community of practice may belong to very different localities of practice to start with, but – after sustaining enough mutual engagement – they will end up creating a locality of their own, even if their backgrounds have little in common" (Wenger, 1998, p. 130).

As the class is confronted with obstacles, dilemmas and attempts to navigate everyday life, it develops its own unique responses to events. Its members remember past experiences and use this information to formulate responses to new situations. Together,

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the class members discuss and negotiate an understanding of their identities as physicians. As time passes, medical students develop efficient mechanisms to disseminate information. They come to know each other professionally and socially. Classes share jokes, experiences and socialize together. These all provide a sense of cohesion within the class or community.

Thus, because they are mutually engaged, have a joint enterprise and share a common repertoire, a medical school class forms a community of practice.

How then does learning occur within a community of practice? Learning within such a community is a social, temporal phenomenon (Wenger, 1998). Moreover, students must actively engage in pursuing a common enterprise to share learning within their community of practice. During their time together, the students learn as they weave together their experiences of participation and reification. These intertwined processes not only contribute to individual learning and development, but also help form the communal memory of the community.

As individuals participate in a community of practice, they also engage in the personal process of internalization and externalization (Valsinor, 1998). Externalization/ internalization is the process that is able to bridge the gap between the individual and the community of practice. It is the enabler of participation. When people externalize material they contribute to the shared experience of the community. As the community reflects upon this externalized material, it may provide feedback to individuals, who may then re-internalize the information and use it to make adjustments in their own intrapsychological schema. Simultaneously, other members of the community of practice may examine and re-internalize material that has been externalized by a different member

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of the community. Therefore "our experience and our membership inform each other, pull each other, and transform each other. We create ways of participating in a practice in the very process of contributing to making that practice what it is" (Wenger, 1998, p. 96). Learning is a vibrant process, which involves individuals dynamically and imaginatively participating in a culture and therefore contributing to their own development and the evolution of the culture (Rogoff, 2003). Learning or development could also be conceptualized as "a process of changing participation in a community [...] of taking on new roles and responsibilities" (Rogoff, 2003, p. 233).

Similar to a first- and second-year student engaging with their medical school class, a student starting postgraduate medical training (residency, PGY-2-5) is on a fully inbound trajectory to become a fully participating, legitimate member of the community of practice of their medical specialty. The clinical years of medical school, (typically year 3 and 4) and the PGY-1 year, which is the year between medical school and the years of being on the fully inbound trajectory to their medical specialty, have poorly defined communities to which these learners belong. During these years "much less unity exists" and "there is less opportunity to support and learn from each other" (Shapiro & Lowenstein, 1979, p. 80).

During the final years of medical school students have significantly less contact with their medical class community of practice. During the PGY-1 year, most individuals lose contact permanently with most of the classmates that helped form their medical school community of practice. Even though the individual may continue to show affinity and fondness for their medical class community of practice, it is no longer available to assist the learner with the negotiation of his or her identity (Rogoff, 2003).

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Further, these learners have had neither the time nor the means to become part of a new community of practice. During these years, students typically rotate quickly through the different communities of medicine. It appears that "the real problem lays in their difficulty in entering their new community" (Wenger, 1998, p. 100). Different communities may have significantly different roles for the students to fulfill (Wenger, 1998). Different communities of practice can have very different traditions, practices, habits, rituals and tools. It is difficult for the learner to adapt quickly as he or she moves from one community of practice to another. Any relationships that are formed tend to be transient and superficial. One comes to know who does what or who knows what based on their professional status (nurse, senior resident, junior resident) rather than by who the person is. This can "present difficult challenges especially when the ways of one community conflict with those of another and are experienced as troubling fragmentation" (Rogoff, 2003, p. 330).

Often during these years, the learner occupies a "peripheral position that does not approximate full participation" in the community they are visiting (Wenger, 1998, p. 100). Also, they are often not treated as potential members of the community and are not given legitimate access to the community. For these reasons, the learner is unable to contribute to the community they are visiting in any meaningful way. Learners may then develop a relationship of non-participation with the community of practice by remaining at the periphery of the community of practice they are visiting and never becoming a participating member of the enterprise of that particular community of practice (Wenger, 1998). Those who develop an identity as a non-participant in a community of practice, either because their presence is not seen as legitimate or because they are not allowed to

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fully participate, become progressively marginalized because of their non-participation. Learning "depends on our ability to contribute to the collective production of meaning because it is by this process that experience and competence pull each other" (Wenger, 1998, p. 203). If one has a relationship of non-participation with a community, the individual is probably not learning.

Wenger (1998) provides some insights into the community of non-participation. Non-participation can function as a cover for the individual. "Non-participation provides protection for one's sensitivity from the broader moral issues and societal conflicts of interest one feels powerless to address – the 'I just work here' syndrome" (Wenger, 1998, p. 171). Also, non-participation can function as a survival strategy for the individual. Performing only what needs to be done, but not participating within the community, can provide a source of disengagement. It allows the individual to define his or her identity outside a particular community of practice. Non-participation can also function as a mutual compromise between the individual and senior members of the community of practice. "You don't invest yourself in me and I don't invest myself in you" (Wenger, 1998, p. 170). Non-participants may develop their own community of practice, and through this community negotiate their identities as non-participants.

The trajectory of students, as they proceed through medical school, starts with a well-defined group of students who form a supportive community of practice as they begin the process of negotiating their identities as physicians. As they move into the senior years of medical school and finally into the internship year, the ties to this important community of practice become increasingly tenuous, primarily because of a lack of opportunity to spend time with that community. Simultaneously, students

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increasingly spend time as non-participants as they rotate quickly through different specialties. At this stage, students frequently complain about their limited participation in the medical setting and about how they are often relegated to doing only menial tasks or scut work, such as holding retractors and running down lab results. "In dealing with their marginality, they place this complex mixture of participation and non-participation at the core of their practice and identities as workers" (Wenger, 1998, p. 172).

It is during these years of non-participation that students may be confronted with overwhelming clinical situations that may be important in the process of identity development. Also, during these years, students are increasingly subjected to the powerful influence of the informal or hidden curriculum. This informal curriculum spontaneously emerges, is not monitored by the medical school and is outside the formal curriculum of the medical school. The hidden curriculum is often more concerned with replicating the culture of medicine than with teaching facts or knowledge (Hafferty and Franks, 1994). As students interact with peers, interns and residents, whether it be while on-call, in the time between patients or when in the cafeteria, they are participating in the hidden curriculum. Here they start to learn how to navigate and survive the culture of medicine. The students behave in a manner in which they are expected to behave to gain acceptance among peers and to increase self-esteem (Shapiro & Lowenstein, 1979).

Just as the students are being confronted with significant experiences in the process of negotiating their identities as physicians, they no longer have the ability to fully participate in the community of practice that is their medical school class, where they have done a significant amount of the work involved with negotiating their identity. Rather, they have peripheral access to communities of practice to which they do not

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legitimately belong. Also, they begin to become part of a new community, which has been brought together by non-participation. As part of this new community, rather than spending time negotiating their identities, a significant amount of "the communal energy goes into making their time at work a livable realization of their marginality" (Wenger, 1998, p. 171). During these years, which are marked by difficult experiences on the wards, students often do not have the opportunity to reflect upon these experiences. They may make false assumptions that may remain unchallenged and that may become solidified within the person's intrapsychological schemata.

Now let us return to the case presented in Chapter One to try and better understand some of the material presented in Chapter Four and how this material may contribute to our understanding of the development of students.

My own medical school class was initially brought together in September 1989. Very few people in the class knew any of the others and I did not know anyone in the class. We came from very diverse ethnic, religious, cultural, educational, financial, and geographical backgrounds. This diverse group of people was chosen by the admission committee to enter first-year medical school to start the process of becoming physicians.

Very quickly the class started to support each other, especially as the workload grew and stress mounted. Together we discussed each week's case, wondered aloud whether anyone actually understood the last renal physiology lecture and we developed class jokes. Also, we found efficient ways to share materials such as old exams. We came to know who had expertise in an area and who was willing to help share the burden of work.

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The class also expected its members to conform to acceptable behavior. If the class knew someone was cheating on exams, the person was confronted by the class and asked to stop the behavior. The class was a safe place to discuss ethical dilemmas and feelings of anxiety.

During third and fourth year, we broke into small groups and rotated through the various medical specialties. When students began a new rotation they usually had very little knowledge of the specialty, had no idea where to go, where to stand, what to say and what not to say. I felt inadequate, incompetent and insecure as I started each of these new rotations. During each rotation, students joined a new team, usually made up of unknown members. I saw the team as a safe haven. Even though I did not know the team members, I felt more secure around them. I tended to behave as they did. I would fit in and hopefully be accepted by them. At first, I was shocked and appalled at some of the behaviors displayed by the team. Gradually, I became less shocked and, finally, behaviors which were once appalling went unnoticed.

Classmates were mostly seen in the hospital lounges. We no longer discussed ethical issues or interesting cases. Rather we complained and supported each other's cynicism. We were trying to get through the clerkship years and supported each other in our positions within the community of non-participation.

I then passed from medical school to my PGY-1 year. During this year I was not connected to any community. Even though I remained in Ottawa, most of my classmates moved away. I knew very few people and no one with whom I felt comfortable discussing my perceived inadequacies or insecurities. We tended to discuss safe topics like fatigue, work load, and call schedules.

PGY-1s saw more unethical behaviors and increasingly tended to accept these behaviors. Students at this stage are usually tired and in temporary situations. Often they just cannot be bothered to create a fuss by challenging unethical behaviors. For PGY-1s, it was best to keep quiet, complete their work and go home. As I witnessed or participated in unethical behaviors during this stage of my medical training, I could almost sense my own ethics sliding downward. There was no one to challenge my own thoughts, actions and behaviors. Like me, everyone seemed to be doing what they needed to do to survive the year.

The next year, I was a PGY-2 in psychiatry and I was able to start the process of becoming connected to the community of practice of psychiatry. As I became more connected to this community, I felt more responsible for my ethics and behavior and there seemed to be some recovery from my ethical erosion that had occurred in the first years of training.

The next chapter will continue to examine the social configuration of medicine. Such an examination will give us some insight into how the different elements of medicine work together to form the culture of medicine. We also may better understand how medical students fit, or don't fit into the culture of medicine. From this discussion some ideas of curriculum changes will be presented.

Chapter Five

Constellations of Practice in Medical Education

We know that people do not exist, grow and develop in isolation. Rather individuals organize into communities of practice as they negotiate the meaning of their practice. Similarly, communities of practice do not exist in isolation. Chapter Five discusses the organization of communities of practice into constellations. Understanding the organization of communities into constellations is important because when an individual "joins a community of practice it involves not only joining its internal configuration but also its relations with the rest of the world" (Wenger, 1998, p. 103).

Large social configurations, for example the medical school, are "too broad, too diverse and too diffuse to be usefully treated as a single community of practice" (Wenger, 1998, p. 122). To understand both their connectedness and disconnectedness, these large social configurations can be described as "constellations of interconnected practices" or constellations of communities of practice (Wenger, 1998, p. 127). Each of the communities within the constellation has its own mutual engagement, joint enterprise, shared repertoire, and "their own interpretation of the overall enterprise of the large social configuration" (Wenger, 1998, p. 127). Yet these communities of practice are somehow able to form relationships with each other. Communities are able to establish relationships between themselves and form a constellation of interconnected practices for many diverse reasons. Some of these include:

> "sharing historical roots, having related enterprises, serving a common
> cause or belonging to an institution, facing similar conditions, having
> members in common, sharing artifacts, having geographical relations of

proximity or interaction, having overlapping styles or discourses and competing for the same resources" (Wenger, 1998, p. 127).

The constellation, which is formed by the different communities of practice of medicine, shapes the culture of medicine.

How do communities within a constellation communicate and relate to each other? Wenger describes two forms of communication that may occur between communities: the exchange of boundary objects and brokering (Wenger, 1998, p.105). Boundary objects are reified tools (for example practice guidelines, codes of conduct, concepts or evaluations) "around which communities of practice can organize their interconnectedness" (Wenger, 1998, p. 105). Boundary objects can coordinate the enterprise of different communities; however, they only do so when the different communities attempt to work together to align their enterprises. Each community of practice has only limited power over the content and interpretation of the boundary object. The boundary object represents a "nexus of perspectives" because the content of the boundary objects belong to multiple practices and is under partial control of each of the practices (Wenger, 1998, p. 108).

An example may help to create a clearer understanding of boundary objects. As medical students move between communities, they carry with them a standardized evaluation. Each community has had input into the content of the evaluation; however, the evaluation is generic enough to be useful in every rotation, from orthopedic surgery to psychiatry. The evaluation must represent a nexus of perspectives. The final draft of the evaluation was approved by someone from the medical school who probably was not a member of any of the communities that now complete the evaluation. Therefore, each community of practice has had input into the content of the evaluation but little control

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over the final format of the evaluation. Due to the generic nature of the evaluation form, some of the content is inappropriate in some communities. Each community can only attend to the appropriate sections of the form. By doing this, the community can have some control over the boundary object. The evaluation attempts to co-ordinate and standardize the experience and evaluation of the students as they move through different communities of practice.

The second type of connection that Wenger (1998) describes is brokering. Brokering involves the movement of people between communities of practice. As they move they may introduce elements of one community into another.

> "The job of brokering is complex. It involves the process of translation, coordination and alignment between perspectives. It requires enough legitimacy to influence the development of a practice, mobilize attention and address conflicting interests. It also requires the ability to link practices by facilitating transactions between them, and to cause learning by introducing into a practice elements of another. Toward this end, brokering provides a participative connection – not because reification is not involved, but because what brokers press into service to connect practices is their experience of multimembership and the possibilities of negotiation inherent in participation" (Wenger, 1998, p. 109).

Recently, I attended an event where an endocrinologist gave a talk to a group of psychiatrists about how new atypical antipsychotic medications commonly used by psychiatrists have significant metabolic side effects. The management of these metabolic syndromes usually falls within the domain of endocrinology rather than psychiatry. However, because psychiatric medications are causing patients to develop these syndromes, it is increasingly expected that psychiatrists will manage these syndromes. The endocrinologist came to the psychiatric community in an effort to align the two practices. He was able to bring with him and explain the current treatment guidelines of these metabolic syndromes. In time, the psychiatric community of practice will adopt and

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practice these treatment guidelines. It takes a skilled broker to help a group of psychiatrists understand the complex practice of an endocrinologist.

There are three types of encounters between individuals and different communities of practice: one-to-one, immersion and delegation (Wenger, 1998, p.113). A one-to-one encounter is between two individuals from different communities. Delegation encounters occur when groups of people from two different communities of practice meet together. The most important type of encounter, for the purpose of this thesis, is immersion. During this process, a person visits or becomes immersed in another community of practice. During the immersion, they are exposed to the tools, practice and rhythm of the new community. However the exchange is mostly one-way. The community of practice being visited is unlikely to see or understand the visitor's home community of practice. The psychiatry community of practice that is being visited by a medical student is unable to observe the medical student in his or her medical school class community of practice or fully understand the practice of the class.

Immersion encounters are the best way to describe the relationship between students and interns as they rotate through the various communities of medicine. As the student is assigned to a new rotation, they quickly become involved in the daily routine of that community. However, the new community knows very little about the student's home community of practice, whether it is the medical school class, or the community of non-practice.

There are definite benefits to observing, participating in and understanding different communities of practice (Rogoff, 2003). Being able to understand the dynamics, purpose and practice of different communities may increase confidence, and cognitive

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and social flexibility. It may also "facilitate development of situational problem solving skills – to recognize, adapt to, circumvent or change a predicament" (Rogoff, 2003, p. 330).

However, along with the benefits come some potential challenges. The possibility of a fragmented, confusing experience exists (Rogoff, 2003). There may be uncertainty and confusion as one moves between communities. It is also possible that a person's presence in a community is not considered to be legitimate by existing group members and he or she is not allowed to participate in the community.

Thus, we can understand the importance of students rotating through the different communities of practice of medicine. The unique set of skills, tools and practice of each community is important to learn, appreciate and understand. As students move rapidly between the communities, the experiences can be overwhelming, confusing and disenchanting, particularly if the experiences and expectations between two different communities are markedly different.

We appreciate from Chapter Four that each community of practice has its own practice, which is the source of the community's mutual engagement, joint enterprise and shared repertoire. Sometime the practices of various communities converge and some productive enterprise may emerge by their mutual engagement.

Wenger (1998) describes three manners in which practices can connect and mutually engage: boundary practices, overlaps and periphery. The most significant type of connection for this thesis is a peripheral connection. A peripheral connection occurs when the edge of two communities of practice overlap.

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A community of practice can be visualized as "a node of mutual engagement that becomes progressively looser at the periphery, with layers going from core membership to extreme peripheral association. The interaction of all of these levels afford multiple and diverse opportunities for learning" (Wenger, 1998, p. 118). The periphery (Wenger, 1998) is a unique place; it is neither entirely inside nor entirely outside the community of practice. A peripheral connection may offer legitimate access to a practice without subjecting the student to the demands of full membership. This peripheral relationship is very significant to those individuals who are not on a fully inbound trajectory into the community of practice but who need to know something about the community.

As senior medical students and interns move through the different communities of practice of medicine, they occupy a place at the periphery of the community they are visiting. Lave & Wenger (1991) argue that it is necessary for the learner to spend an initial period observing the community of practice upon entering the community. From this peripheral perspective or "space of benign community neglect" learners discover what the whole enterprise is about, what is to be learned and how they can work to establish their place in the community (Lave & Wenger, 1991, p. 93).

Lave & Wenger (1991) describe the learning that occurs by the individual at the periphery of a community of practice as legitimate peripheral participation. This describes the process by which a newcomer becomes part of a community of practice. First, learners require legitimate access to a community of practice. They must be seen by members of the community of practice to rightfully belong at the periphery of the community. Second, the learners should occupy a position at the periphery of the community of practice as they start a new rotation. Their duties are less intense, less

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complex, and less vital to the final product than the duties of more experienced members who are situated closer to the core of the community. As learners become more sophisticated, they move centripetally from the periphery to the center of the community of practice. Concurrent with this movement they perform more complex, vital tasks and they assume more responsibility for the final product. Third, for students to learn most effectively, they must actively participate in the community of practice. They must become involved in the relationships within the community, use the tools, learn the skills of the community and become familiar with its activities and routines. They cannot merely function as passive observers of the community.

Neither the senior medical student nor the PGY-1 intern is on an inbound trajectory into the communities they are visiting. The inbound trajectory is reserved for residents of that specialty. From the medical students' vantage point at the periphery of the community, there is both a great opportunity to learn and a great risk of becoming burdened with mundane tasks. They have the opportunity to observe not only the dynamics and rhythm of the community, but also its practice and its tools. However, if the presence of the learners is not legitimate, they may not truly participate nor contribute to the practice of the community. Rather, they may be given minor housekeeping activities, which are essential to the daily functioning of the community but are not truly part of the practice of the community. For example, students assigned to surgery rotations are often asked to stand for hours and hold retractors in place. During this process, they are unable to see or to participate in the practice of surgery and they are not actively participating in the surgical community of practice even though they are present in the operating room.

As communities of practice interact with each other, through brokers or boundary objects, they can influence each other. "Styles and discourses can be imported and exported across boundaries and reinterpreted and adapted in the process of being adopted within the various practices" (Wenger, 1998, p. 129). These styles and discourses do not define a community of practice nor do they constitute the practice of a community, but they can spread across an entire constellation and serve as a source of continuity within the constellations (Wenger, 1998). This mechanism can lead to change within the entire culture.

Let us now return to the scenario that was presented in Chapter One in an attempt to further understand these concepts as they apply to medicine. As senior medical students and PGY-1s, we quickly moved from one community of practice to another. During my PGY-1 year, I changed rotations every month and my longest rotation during medical school was six weeks. This was a confusing and fragmented experience because the expectations on each rotation were vastly different. The team dynamics and expectations were never written down; rather, one had to figure them out. It took about a month to figure out the functioning of the team and, by then, it was time to move to the next rotation.

For example, during my PGY-1 year, I spent a month on general surgery. They were short of "bodies" on general surgery so I had to carry the trauma pager, which was usually the role of the junior surgical resident. I spent the month fearful the pager would go off, as I would probably be the first responder. As the first responder, I would be expected to start running the trauma, even though I had minimal trauma training. The demands on me during this rotation far exceeded my training. My self-esteem suffered a

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daily, severe beating as staff members and surgical residents expected me to function as a junior surgical resident, even though I was a PGY-1 in psychiatry. I coped by withdrawing, trying to become invisible and by finding support among the members of the non-participating community by making cynical and sarcastic comments about surgeons.

The very next month, I was assigned to obstetrics and gynecology. On this rotation, interns were not allowed to do anything independently. We completed admission histories that any well-trained clerk could have completed. Following these two experiences I stopped trying to figure out the system, as expectations between rotations were vastly different and often conflicting.

The presence of interns on many rotations was often considered by some members of the community to be illegitimate. Also, a lot of the work we did, even though essential, did not allow us to actively participate in the community of practice. Because of this, we did not learn about the community or about practice.

I believe that coming to these realizations contributed to my cynical and negative attitude. I felt as though not one person or community cared about my learning or emotional experience, but rather that the communities wanted my presence only to do the day-to-day work, allowing them the freedom to get on with the real business of their community. It was also during this time that I felt that my true alliance was to the community of non-participants, which for me was not a healthy alliance. We tried to survive the year together, and to provide support primarily by complaining and making cynical comments.

The problem seemed to intensify when we were cross-covering services on-call. For example, I was assigned to General Internal Medicine during the day but was on-call for oncology at night. While on-call I did not feel part of the oncology community of practice but felt like an alien while on the oncology ward, as I had no relationship with the community. Also, I felt hesitant to ask for assistance. Following the situation on the oncology ward, I did not receive any support from the community, as they had nothing invested in either my emotional well-being or myself personally.

The previous chapters have engaged in a theoretical discussion of identity development of the individual student, of cultural learning theory, of the community and the constellations of medicine. Chapter Six will apply all of these insights to try to understand the process of medical education. Hopefully the discussion in Chapter Six will deepen our understanding of forces influencing the developing medical student. Better understanding these forces will enhance our discussion in Chapter Seven where changes to medical curriculum will be discussed.

Chapter Six

Cultural Learning in Medicine

We know from previous chapters that one of the major tasks during medical training is to develop an identity as a physician. This task is negotiated within the communities and the culture of medicine. As the culture of medicine guides the development of the student, so too can the student participate in the evolution of the culture of medicine. This chapter looks practically at factors that may contribute to the development of the student as they follow their trajectory through medicine. Hopefully such an exploration will enrich our understanding of these factors and serve as a starting point for meaningful discussions about possible changes to curriculum that support the development of the student.

When students arrive at medical school, they have already woven a nexus of multi-membership. They have already participated in a multitude of communities of practice on their journey to medical school. They have established identities and personalities which they have negotiated as they followed their own personal trajectories. Due to their own unique set of past experiences, each individual has developed their own unique intra-psychological representation and understanding of the world. Students carry these unique and current intra-psychological schemata into the culture of medicine.

Upon entering medical school, the students immediately become part of a group of individuals with a similar goal: to become physicians. During the first two years of medical school classmates spend many hours together. Not only do they study and attend lectures, but class members frequently socialize together as well. Quickly the class forms

into a community of practice that can be described as strong, cohesive and supportive. During the first two years the class members have very similar experiences, for example patient interviewing sessions. Even though the class is broken into small groups, the experience is standardized, so students from different groups can discuss the same cases. Students are encouraged to discuss their experiences with peers, tutors and mentors. The class tends to support its members through difficult experiences, but similarly ostracizes behavior deemed to be unacceptable.

While the students are in their first two years of medical school, they remain fairly protected from the culture of the larger world of medicine. Their primary attachment is to their medical school class or community of practice. Their contact with the larger medical culture tends to be through tutors and elective time. Tutors primarily bring to the medical school class information; it is difficult for tutors to bring or present material about their own community of practice or about the overall culture of medicine.

Even if medical students leave their community to participate in an elective, the time spent at the elective is very short. The student's knowledge tends to be very superficial and there are few expectations of the learner at this stage in their development. These factors position the early medical student solidly in a protected position at the periphery of the community of practice they are visiting. Students may be completely unaware of the culture of medicine, as they make these short return trips out of their medical class community and sit at the periphery of the community they are visiting. They often do not fully understand the language or the practice of the new community enough to understand its dynamics, or to be fully exposed to its culture.

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When students complete an elective, they return to their medical class community. Usually students discuss their experience with friends or in small group sessions. If something happens that students do not understand, or if an adverse event occurs, students have an opportunity to discuss their feelings, thoughts and attitudes in the supportive environment of their medical class.

New medical students are generally exposed to different communities of medical practice in the least stressful environment possible. Electives tend to occur in less stressful times when the student has time to complete them, and usually not after hours. For example, if an intense situation occurs similar to the scenario depicted in Chapter One, medical students are moved to an even more peripheral place in the community, perhaps to the point of not being in the community or even asked to leave the area. Students may likely find the event interesting, but may not feel a part of the event because their presence is probably not legitimate, nor are they actively participating in the community.

During their early years in medical school, students become aware of the behaviors that are forbidden by the culture of medicine. These are usually written as codes of behavior and college guidelines. Students become aware that some reified objects within the medical culture constrain their development.

Also, the students become more aware that sometimes they may have to act in a manner they thought impossible for themselves as individuals or as physicians. For example, a Jehovah's Witness patient is in a serious motor vehicle accident and requires a life-saving blood transfusion. If the patient is competent and refuses the transfusion, the blood must be withheld and the person may die. Students become more aware that their

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decisions and actions as physicians are going to be further constrained by patients'

decisions and by society. They learn that physicians are not always able to do what they

feel is correct. However, these experiences often seem to be abstract and intellectual.

During these early years, students are not fully exposed to the culture of medicine, so

they are unaware of the manner in which the medical culture may further constrain their

development.

Next, students move to the third- and fourth-year clerkship experience when they

no longer have daily contact with their medical school class. In small groups, they spend

short rotations in the various communities of practice of medicine. They may not even

have daily contact with the small group when they are assigned to a rotation. These small

groups are usually only brought together for teaching sessions, which are often focused

on a topic that is relevant to the community in which they are currently participating.

Thus, the students lose their forum to discuss everyday events and the nuances of

medicine. They lose their safe environment where they are free to discuss their identity

development.

Simultaneously, students may start to become a member of the non-participating

community of practice, which was discussed in Chapter Four. This community is largely

made up of third- and fourth-year medical students and PGY-1 interns, those not on a

fully inbound trajectory into the community of practice they are visiting. The higher lever

postgraduate years, PGY-2-5, are on an inbound trajectory into the community of practice

of their specialty. Therefore, their experience is completely different from that of senior

medical students and PGY-1s. The later year medical students and PGY-1s spend their

time on the periphery of many different communities of practice. They experience

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differing degrees of participation in the various communities and their presence has different degrees of legitimacy. The expectations between the different communities they are visiting may be markedly different. This can lead to a confusing, frustrating and disenchanting experience. It is a challenge to understand the rhythm of each rotation and determine the roles and expectations for students. Any relationships they form within the community of practice they are visiting can only be fleeting.

Most of the work done during the senior years of medical school and the PGY-1 year is done in teams. As learners move to different communities of practice they become members of different teams. The students may be vulnerable because of a lack of knowledge and experience. They may want to feel that they are part of the team in an effort to bolster their self-esteem and confidence. While on a team, they may see and hear things they might not agree with, but they may be afraid to say anything for fear of being ostracized by the team. In fact, they may join in on the activity merely to feel part of the team. For example, a team may be deriding an obese patient who cannot get out of bed unassisted. Even though students are morally opposed to this activity, they may choose to say nothing to the team for fear of ostracism.

The senior members of the team have clear power over the students. Residents have significant input into students' final evaluations. Also, senior residents form a highly interconnected web within the hospital. Students do not want to get a reputation of being lazy or a complainer that could precede them to other rotations. This information can be quickly and easily disseminated throughout the entire medical culture. For these reasons, students may not confront the senior resident if they disagree on a matter.

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Simultaneous with the transition from the community of practice of the medical school class to the non-participating community, learners become increasingly exposed to the culture of medicine. Here the learners are exposed to all the different intersecting communities of practice that constitute the constellation of medicine. They are exposed to consultants, fellows, residents, nurses, nurse practitioners, various therapists, administration and others. The environment is no longer standardized and controlled. In fact, the environment becomes less controlled as learners spend increasing amounts of time unsupervised. Here the individual student is exposed to many situations and dilemmas, such as a catastrophic event like watching a patient die, or being personally offended by language utilized by respected consultants or residents, or disagreeing with the manner in which a patient is treated.

> "Many of the messages transmitted via the hidden curriculum may be in direct conflict with what is being touted in formal courses or with what is being formally heralded by the institution as desirable standards of ethical conduct. One consequence is that students experience the educational process as something structured around inconsistencies, contradictions and 'double messages'. The result is feeling of moral relativism and cynicism regarding the sanctity of the standards that are supposed to govern their professional lives" (Hafferty & Franks, 1994, p. 866).

> "Faculty expects students to exhibit in social, economic and political environments certain professional values of which they do not have the slightest critical understanding. This opens the doors for cynicism and resignation among students before they even begin their careers" (Wear, 2000 p. 606).

At the same time as these changes occur, the students learn strategies to survive these years. They are confronted with new challenges, such as fatigue, demanding work schedules and rising competition for attractive residency positions. They also learn how to survive the daily demands of medicine, how to wear the lab coat, when to talk, when not to talk, what words to use, what words not to use, when to complain, when not to

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complain, when to ask for help and when not to ask for help. Learning the preceding code of conduct is crucial to surviving these years; however, the code is largely unwritten, being passed from generation to generation. Learning the code of conduct is largely a process of observation, along with trial and error.

If students are able to articulate to the medical community something they experience that is at odds with their intra-psychological schemata or something they do not understand, several things may happen. If the community deems the externalized material appropriate, the matter may be discussed in an effort to enhance the understanding of learners. Students can then internalize the new material and integrate it into their intra-psychological schemata. At the opposite end of the spectrum, the community may deem the material inappropriate. This is expressed by various methods such as silence, stares and overt rejection. It is not inherently obvious which behaviors, attitudes and questions are acceptable and which are not. Also, acceptable behavior in one community of practice may not be acceptable in another. Often learners observe the behavior of others in the community quietly from a distance, without articulating any questions or concerns they may have, while modifying their behavior accordingly.

These interactions may lead to humiliation and embarrassment. "Medical students believe that mistreatment [during medical school] was a significant factor in making them more cynical about their educational experience and the practice of medicine ahead of them" (Kassebaum & Cutler, 1998, p. 1150). Once humiliated, students avoid further humiliation. "Humiliation and fear of humiliation seems to be very common in medical culture" (Pitkala & Mantyranta, 2003, p. 158). Peers who witness the humiliation probably avoid placing themselves in similar situations. One may choose to avoid

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humiliation by remaining quiet and by not articulating internalized material even if the individual would like to do so. This can lead to inaccurate assumptions, mistakes that remain uncorrected and the development of bad habits both by the individual and within the culture (Westberg & Jason, 2001).

Thus, the medical culture canalizes the development of the individual as a physician. The individual auditions behaviors and the culture responds by enabling or constraining development and therefore channeling the development of the individual. Simultaneously, the individual may shape the culture, as material is, or is not, externalized and the culture may respond by adapting to the new information. Thus the culture and the physician are co-created.

Now that we have a more complete framework for understanding the factors that influence the development of medical students during their years of medical training, the next step is to utilize some of the new understandings as we engage in conversations about curriculum changes that support the development of the student. Chapter Seven describes some ideas regarding changes to curriculum that may support the development of the student. These ideas will hopefully stimulate further constructive discussion.

Chapter Seven

Medical Curriculum

Before making any suggestions for potential changes to medical education, I would like to take a few paragraphs to summarize the salient points of this thesis. Medical education literature has documented the moral decline of some students during their years in medical school. There have been some attempts to understand this process in the literature. Hopefully this thesis will enrich our understanding of the process and stimulate further discussion.

In Chapter Two, I related some of the principles of cultural learning theory (Rogoff, 2003; Valsinor, 1998). The culture of medicine constrains the development of individual students along developmental trajectories that have been deemed appropriate by the culture. It is only by participating in the culture that students come to learn and understand which behaviors or trajectories of development are encouraged and which are discouraged. The medical culture has a powerful, somewhat covert system to guide the development of people. Cultural learning theory also describes how change within a culture is possible. As the people develop, so too can the culture can evolve.

During medical school, medical students must not only learn a massive amount of information, but they must also develop their identities as physicians. Even though this is largely a personal task, some of the work is done within the community of practice of their medical school class. During the first years, the class plays an important role in the development of the individual.

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However, in the later medical school years and the PGY-1 year, when students are coming into contact with and learning to negotiate the culture of medicine, they no longer have access to this important community of practice. Rather they may become part of the community of non-participation, which is more interested in surviving the daily life of medicine than in negotiating identities or learning.

Also, cultural learning theory suggests that the most valuable learning occurs if the presence of the learner in the community of practice is perceived by the members of the community to be legitimate. Furthermore, for optimal learning, the learner must actively participate in the community they are visiting. Also, we can now appreciate that the periphery of a community of practice is a unique place, where there is a great opportunity for learning to occur.

Medical literature provides us with some ideas regarding possible changes that may support the development of identities. It appears clear that educators cannot assume that professionalism and moral or ethical behavior is a natural result of medical education. Rather it must be a planned part of the medical curriculum (Hafferty & Franks, 1994). Wear notes that "professionalism, rather than being left to chance that students will model themselves as ideal physicians or somehow be permeable to other elements of professionalism, is fostered by students' engagement with significant integrated experiences with certain kinds of content" (Wear, 2000, p. 602). Also, it appears that, when developing a curriculum to address these issues, the environment in which the student is developing, that is the medical culture, must be addressed. Hafferty and Franks write, "any attempt to develop a comprehensive ethics curriculum must acknowledge the

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cultural milieu within which that curriculum must function" (Hafferty & Franks, 1994, p. 861).

Christakis & Feudtner (1993) point out that ethics curriculum must be relevant to students. They further suggest that, "ethics programs must focus on the ethical developmental tasks that students confront, that is ethics curriculum must be situated in the everyday life and dilemmas of the students" (Christakis & Feudtner, 1993, p. 254). The ethical dilemmas that are discussed or presented must be ones that they may potentially confront as students, not ones that they may confront as physicians. They argue, "existing ethics curricula fail to address the ethical issues that medical students confront daily" (Christakis & Feudtner, 1993, p. 249).

Wear (2000), Hafferty & Franks (1994), and Christakis & Feudtner (1993) make the important point that, to be effective, an ethics curriculum must not only be situated within the culture of medicine, but must also be found in the everyday experiences of medical students.

Attempts have been made to understand how students grapple with professional dilemmas. Ginsburg, Regehr & Lingard (2003) asked students to write descriptive essays on professional lapses. The essays provided "insight into the double-binds that students experience, their efforts to transcend these double-binds, and, through these, their emerging professional stance" (Ginsburg, Regehr & Lingard, 2003, p. 350).

Christakis and Feudtner developed an "innovative and well received ethics class given at a tertiary care hospital as part of the internal medicine clerkship" (Christakis & Feudtner, 1993, p. 250). During these sessions students were given the opportunity to present and discuss cases with an ethical or professional dilemma. The discussion was

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participant driven but moderators "tried to direct the students' discussion of their cases to further develop their ethical processing" (Christakis & Feudtner, 1993, p. 250). They concluded that ethical education must be participant driven and relevant to students.

Feudtner & Christakis (1994), Lingard & Ginsburg (2003) make very valuable suggestions regarding potential ethics curriculum for medical students. This thesis is concerned with identity development as it occurs within the culture of medicine. Ethics is just one element in the development of the medical student. There is no simple change to the medical school curriculum that will help medical students learn medicine and develop their identities as physicians without suffering the moral and ethical decline that has been described. This is a very complex issue. The suggestions that follow are only ideas that may help the holistic development of the student.

Introducing first- and second-year student to the concepts of hidden curriculum and the culture of medicine is important. Early exposure to videotaped scenarios, such as the one in Chapter One, may offer students an early opportunity to discuss the culture of medicine while still part of their medical school class community of practice. Exposure and guided discussion may assist students in developing some coping strategies for their clinical years. For example, they may develop techniques and tools to use when telling a more senior resident that they do not agree with the resident's point of view on an ethical issue. Also, early exposure gives the student a forum to start thinking about moral dilemmas they may be confronted with as they enter their clerkship.

Westberg & Jason (2001) point out that reflective practice is not only beneficial for skill development, but also for the emotional well-being and development of the individual. Reflection can assist a learner understand and integrate difficult experiences

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during medical training. Reflection helps them come to know and understand themselves, which in turn helps the learner to be a more empathetic practitioner. Also, reflection can lead to a deeper understanding of the self, of personal growth and to a greater awareness of when the learner requires help. These deeper understandings of the self can lead to increased self-esteem and confidence. Heightened confidence may help the student to be less vulnerable to the pressures of the culture of medicine, especially when the culture is trying to canalize the student along a trajectory he or she does not necessarily want to embark upon.

Teaching the skills of reflection should optimally start in the early years of a medical education, as those beginning to learn something often do not have enough knowledge to evaluate the work they are doing either accurately or completely (Schon, 1983). Therefore, with the skill of reflection acquired early in their career, students may be able to evaluate and reflect upon their knowledge, technical skills and personal development.

Furthermore, exposing medical students early in their education to the concepts of reflective practice may help them develop the skills and tools necessary to be a lifelong reflective practitioner. Westberg & Jason (2001) offer some insights as to why constructive feedback and reflection is essential to development. They write that, without feedback, "learning may be delayed, inefficient or unsuccessful" (Westberg & Jason, 2001, p. 16), and "learners may make inaccurate assumptions, mistakes remain uncorrected and bad habits can develop, also learners may drop desirable behaviors" (Westberg & Jason, 2001, p. 17). In fact, useful and timely feedback can enhance, accelerate and support learning.

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Teaching students to become reflective practitioners early may eventually lead to a change in the culture of medicine. As these students become interns, residents and consultants, not only will reflection become part of their identities as physicians, but also they will expect reflection from others and from the culture of medicine. As more and more physicians engage in reflective practice it may gradually become the accepted standard of practice amongst the entire culture of medicine.

How can we teach students to become reflective practitioners? Students in the early years of medical schools may have some lectures about the principles of reflection and then be encouraged to use reflective skills during small group learning sessions. Any tutors that come into contact with the students during these first years of medical school can also be taught about the principles and importance of reflection. During these sessions, tutors may not only encourage students to reflect, but they may also role-play reflective practice.

Besides having few role models for reflective practice and guidance, there are other barriers to students and residents learning and engaging in reflective practice. These barriers include: finding time in a busy day, teachers and students unwilling to discuss negative or critical feedback and reflection not being valued (Westberg & Jason, 2001). To produce reflective students, residents and eventually consultants, these skills must be deemed both valuable and essential qualities by the medical school, hospital administration and certifying bodies.

Perhaps a course can be developed that would discuss some of the concepts presented in this thesis. The course may consist of some didactic lectures but should primarily consist of small group discussion. Lecture topics may include hidden

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curriculum, communities of practice, identity construction and reflective practice. Small group sessions could consist of discussing lecture content, as well as discussion that is driven by the participants. Optimally, groups would meet regularly throughout all four years of medical school. It may be helpful for senior medical students to have regular and frequent scheduled meetings with their medical class community of practice. Using the Christakis & Feudtner (1993) model, these sessions may be participant-driven and a forum for students to discuss difficult experiences, ethical dilemmas or the stresses of being a medical student.

Let us now return to the communities of practice concept. Part of the reason that students align themselves with the community of non-participation is that they experience a variety of challenges when they quickly move between communities of practice. Often students do not feel they truly participate in the community of practice they are visiting. Students are engaged in some specific activities of the community (Wenger, 1998), however they are not actually part of the community and the community does not appear to contribute to their identity construction.

> "We accumulate skills and information, not in the abstract as ends to themselves, but in the service of an identity. It is in that formation of an identity that learning can become a source of meaningfulness and of personal and social energy" (Wenger, 1998, p. 215).

It appears that communities of practice that constitute the culture of medicine do a good job of teaching skills and knowledge; as such, perhaps the place or location where learning occurs may be the source of difficulties (Wenger, 1998). "Learning communities will become places of identity to the extent they make a trajectory possible, that is, to the extent they offer a past and a future that can be experienced as a personal trajectory" (Wenger, 1998, p. 215). A community may become a space where the student is able to

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participate and continue the work of his or her identity construction, if the community is located on the personal trajectory of the student.

A community of practice may be able to situate itself on the student's personal trajectory by incorporating the student's past, his or her present needs, and by creating new trajectories within the community to accommodate the student (Wenger, 1998). How can each community create a space for themselves on the personal trajectory of each student? Communities, in order to facilitate participation of students, may spend initial time with students understanding the things the students have already learned, their goals for this rotation and their future goals. The community may then think creatively how each student's goals and needs may be met within this community. Such a discussion may situate the community on the personal trajectory of the student.

Furthermore, to enhance participation within the community they are visiting, the community may discuss different modes of belonging with the student. Wenger (1998) identifies three modes of belonging to communities: imagination, alignment and engagement. The students may be asked to imagine how the present community they are visiting could meet their educational goals. What can a student who wants to be an orthopedic surgeon learn form a psychiatry community of practice? Many students would not be able to answer this question because of their lack of experience. In fact, there is significant information that may be learned by a surgeon in the psychiatry community. Discussing mechanisms whereby the student may engage with the community may help students participate in the community and achieve their objectives. Who can they work with to achieve the goals that have been identified? Where is the information that they would like to learn located? Also, discussing the manner in which the student and the

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community of practice they are visiting might work together to meet the goals the student has established for his or herself, and the goals the community has established may help align the practices. Discussing possible future alignments of the community of psychiatry and orthopedic surgery may also help the student understand the broader world of medicine.

All of these activities may assist students to feel as though they are participating and learning within the community of practice they are visiting. Then the visit to the community may contribute to student identity development and may place itself on the student's personal trajectory. If students feel more aligned with the communities they are visiting, rather than defining themselves by alignment with the community of non-participation, they may further relate to the communities of practice that constitute the culture of medicine.

It is important that the administration of medical schools and teaching hospitals acknowledge the culture of medicine and its influence on students. Teaching sessions, especially for administration, may increase awareness and appreciation of some of the important concepts presented in this thesis. Administration could help facilitate change in the culture, for example, by allowing reserved time for students and interns to meet for discussion.

I would like to end with some personal reflections. During residency, one becomes increasingly attached to the community of practice of one's specialty. As a resident moves centripetally, from the periphery of the community of practice closer to the center of the community, concurrently they move to the periphery and eventually leave the community of non-participation. A resident becomes less interested in merely

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surviving the experience and more interested in learning about the community and its practice. I believe that the transition between these two communities is the start of the process of recovering morals and values. This is a topic for another thesis, however.

It was not until I had completed my postgraduate training program and started working as a psychiatry consultant that there was a significant recovery of my morals and ethics and a significant decrease in cynicism. After residency training was completed, there was time to become more interested in other aspects of my life: friends, leisure and family. This allowed me to construct a more complete and satisfying identity for myself.

Presently I work clinically as a geriatric psychiatrist. I also teach medical students from each of the four years of medical school. It continues to amaze me that within one day I can see the fresh, enthusiastic faces of first-year students and the jaded, cynical faces of final-year students. Completing this thesis has given me a more complete understanding of the forces that contribute to altering the fresh faces to the cynical ones. I hope this thesis will serve as a stimulus for many further discussions about changes within the medical school curriculum and changes within the medical culture that may help preserve the fresh, enthusiastic faces.

Now let us return one last time to the scenario presented in Chapter One. This time let us pretend that some of the curriculum changes presented in Chapter Seven were already in place. If I had been aware of the hidden curriculum and the culture of medicine, I may not have been so shocked by the behavior of the senior resident, and I may have had a more effective approach to interacting with him. Also, if I had had an opportunity to discuss my identity as a physician, the impact of this patient's death may not have had such a harsh impact on my self-esteem and confidence. The availability of a

reflecting group may have helped me construct a more accurate view of the situation, those involved in it, and myself as a physician. Medical students will always be involved in horrific and traumatic experiences. Let us hope that we may develop some changes that will support them through the experiences so that they might emerge from their medical training with their humanitarianism and moral character intact.

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Reference List

Becker, H., & Geer, B. (1958). The fate of idealism in medical school. *American Sociology Review, 23*, 50-56.

Christakis, D., & Feudtner, C. (1993). Ethics in a short white coat: The ethical dilemmas that medical students confront. *Academic Medicine, 68*, 249-254.

Coombs, R.H. (1978). *Mastering Medicine; professional socialization in medical school.* New York: Free Press.

Cruess, R., & Cruess, S. (2000). Professionalism: An ideal to be sustained. *Lancet, 356*, 156-159.

Eron, L. (1955). Effect of medical education on medical students' attitudes. *Journal of Medical Education, 39*, 559-566.

Eron, L. (1958). The effect of medical education on attitude: A follow-up study. *Journal of Medical Education, 33*, 25-33.

Feudtner, C., & Christakis, D. (1994). Making the rounds the ethical development of medical students in the context of clinical rotations. *Hastings Center Report, 1*, 6-12.

Feudtner, C., Christakis, D., & Christakis, N. (1994). Do clinical clerks suffer ethical erosion? Students' perceptions of their ethical environment and personal development. *Academic Medicine, 69*, 670-679.

Ginsburg, S., Regehr, G., & Lingard, L. (2003). To be and not to be: The paradox of the emerging professional stance. *Medical Education, 37*, 350-357.

Hafferty, F., & Franks. R. (1994). The hidden curriculum, ethics teaching, and the structure of medical education. *Academic Medicine, 69*, 861-871.

Helfer, R. (1970). An objective comparison of the pediatric interviewing skills of freshman and senior medical students. *Pediatrics, 45*, 623-627.

Hurrelmann, K. (1988). *Social structure and personality development.* Cambridge, MA: Cambridge University Press.

Kassebaum, D., & Cutler, E. (1998). On the culture of student abuse in medical school. *Academic Medicine, 73*, 1149-1158.

Kay, J. (1990). Traumatic deidealization and the future of medicine. *Journal of the American Medical Association, 263*, 572-573.

Knight, J. (1981). *Doctor to be: Coping with the trials and triumphs of medical school.* New York: Appleton-Century-Crofts.

Lave, J., & Wenger, J. (1991). In J. Seely Brown (Ed.), *Situated learning legitimate peripheral participation*. Cambridge, UK: University Press.

Merten, R., Reader, G., & Kendall P. (1957). *The student-physician: Introductory studies in the sociology of medical education*. Cambridge, MA: Harvard University Press.

Muller, S. (1984). Physicians for the twenty-first century. Report of the project panel on the general professional education of the physician and college preparation for medicine. *Journal of Medical Education, 59*, 373-381.

Pitkala, K., & Mantyranta, T. (2003). Professional socialization revised: Medical students' own conceptions related to adoption of the future physician's role-a qualitative study. *Medical Teacher, 25*, 155-160.

Pfifferling, J. (1980). *The impaired physician: An overview*. Chapel Hill, NC: Health Sciences Consortium.

Retzel, A. (1974). Attitude changes during medical school: A review of the literature. *Journal of Medical Education, 49*, 1023-1030.

Richman, J., Flaherty, J., Rospenda, K., & Christensen. M. (1992). Mental health consequences and correlates of reported medical student abuse. *Journal of the American Medical Association, 267*, 692-694.

Rogoff, B. (2003). *The cultural nature of human development*. New York: Oxford University Press.

Rosenberg, D., & Silver H. (1984). Medical students' abuse: An unnecessary and preventable cause of stress. *Journal of the American Medical Association, 251*, 739-742.

Schon, D. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.

Shapiro, E., & Lowenstein, M. (1979). In, *Becoming a physician development of values and attitudes in medicine*. Cambridge, MA: Ballinger Publishing.

Silver, H. (1982). Medical students and medical school. *Journal of the American Medical Association, 247*, 309-310.

Silver, H., & Glicken, A. (1990). Medical student abuse incidence, severity, and significance. *Journal of the American Medical Association, 263*, 527-532.

Tomasello, M. (1999). In, *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.

Valsinor, J. (1998). In, *The guided mind a sociogenetic approach to personality*. Cambridge, MA: Harvard University Press.

Wear, D., & Castellani, B., (2000). The development of professionalism: Curriculum matters. *Academic Medicine, 75,* 602-611.

Weinstein H. (1983). A committee on well-being of medical students and house staff. *Journal of Medical Education, 58,* 373-381.

Wenger, E. (1998). In J. Seely Brown (Ed.), *Communities of practice learning, meaning, and identity.* Cambridge, UK: University Press.

Westberg, J., & Jason, H. (2001). In S. Sussman & J. Libby (Eds.), *Fostering reflection and providing feedback helping others learn from experience.* New York: Springer Publishing.

Wolf, T., Balson, P., Faucett, J., & Randall, H. (1989). A retrospective study of attitude change during medical education. *Medical Education, 23,* 19-23.

Wright Mills, C. (1959). In, *The sociological imagination.* New York: Oxford University Press.