

## Martin Buber and Complexity-Based Ethics

### Abstract

This paper proposes that concepts from Buber's *I-Thou* (1970/1923) provide a foundation for exploration of ethics from the perspective of complexity science. The paper raises questions of ethics from the standpoint of world issues of large-scale violence caused by reductionist logic in the absence of a moral stance to others. The authors then examine the place of complexity science in ethics with a description of research on a smaller scale—an examination of how physical therapist students approach and reason through the ethical dilemmas they encounter during their clinical internships. The research used a complexity science perspective to explore how these students socially negotiate action when they confront the inevitable conflicts and differences people bring to the clinical environment. The authors conclude that agency is dually informed by the perspective of complex processes of relating and an ethos of relationship with other people based on Buber.

In *Identity and Violence: The Illusion of Destiny*, Amartya Sen (2006) told a poignant story of himself as an eleven-year old helping a dying man, Kadar Mia, who had been attacked because he was a Muslim, during the Hindu-Muslim violence that eventually led to the creation, through partition, of India and Pakistan. In this book, he asked what thinking might have led poor Hindu and poor Muslim workers to attack each other, workers who shared a nationality and an economic class. In the same vein he asked how Hutus could have been recruited to kill Tutsis when they shared the sameness of being Rwandan, African, and, indeed human. Sen answered the questions he raised by pointing out people's willingness to use a "*fragmentary logic*" (p. 176). In this logic, people are willing to accept only a fragment of another's identity, albeit a genuine fragment, as the sole identity of another and, further to use that identity as a reason for violence.

It is not difficult to find evidence of similar acts of identity-based violence in other areas of the world, both contemporaneously and in the past. Israelis and Palestinians are engaged in an ongoing, bitter contest despite international efforts to apportion or re-apportion Israel. Sunnis and Shiites clash over the governance of Iraq. French and German soldiers died in the squabbles over the ownership of Alsace Lorraine. Civilians, innocent children, women, combatants and non-combatants die or suffer or suffer and then die. While it is true that there appear to be potential gains of land or power from victory, the losses in human life and human misery far outweigh any immediate or possibly long-term benefit. In each case, the fight can only be sustained because each side creates an inclusion-exclusion dynamic in which differences are emphasized and similarities minimized (Stacey, 2001).

The dilemma described by Sen becomes even more telling, when human relationships are examined from a complexity perspective, with its emphasis on autopoiesis, non-linearity,

inter-connectivity, and emergence. This paper examines complexity science concepts that may be used as a basis for understanding the compelling need for a less “fragmentary logic.” However, complexity sciences cannot point to an ethos that will inform moral agency. Griffin (2002) proposed that responsibility and accountability among people, and thus ethical and moral agency, emerges during their interactions and does not require a categorical imperative or other externally imposed ethical ideals. Stacey (2001) suggested that acting ethically requires a mutual negotiation between people in which one takes responsibility for one’s actions and is accountable to the other person in ways that are acceptable to both. The story of Kadar Mia, with its implications of an amoral stance among his murderers, and other destructive behaviors among people raises the question as to whether ethical and unethical action are fully explained by these authors’ proposition. Stacey held that any explanatory model had to account for the destructive behaviors we too often see among people. This paper proposes that concepts from Buber’s *I-Thou* (1970/1923) provide a foundation for exploration of ethics from the perspective of complexity science.

We began by raising questions of ethics from the standpoint of world issues of large-scale violence caused by reductionist logic in the absence of an ethical stance to others. Further exploration of the place of complexity science in ethics will include the description of a research study on a smaller scale—an examination of how physical therapist interns approach and reason through the ethical dilemmas they encounter during their clinical internships. What are the connections? First, the research used the same theoretical framework. Second, and perhaps more important, a fractal interpretation of ethical stances to others from a complexity perspective enables us to examine issues at all scales of representation, both spatial and temporal, to gain an understanding of how these ethical

stances emerge and become an integral component of people's relationship with others. The results of that study point to a way of understanding ethical actions.

### Limits of Complexity Science

Complexity sciences provide a world view from which one can examine moral agency. Stacey (2001) and Griffin (2002) suggest that ethics emerges socially from complex processes of relating and it is through these social interactions that we knowingly accept our responsibility to one another, the essence of moral agency. The key concepts proposed by these authors, including interdependence, dynamic self-organization, and the interaction between agents, provide a foundation for understanding how complexity contributes to our understanding of ethics. Interdependence provides one rationale for a consideration of ethics. In 1978, Bronowski wrote: "I believe that the world is totally connected: that is to say that there are no events anywhere in the universe which are not tied to every other event in the universe" (p. 58).

The very notion of adaptation, a central concept of complexity science, is a second rationale for a consideration of ethics. As each complex adaptive entity—person, nation, species--strives to stay alive, it adapts dynamically to the environment in which it finds itself. This environment includes, of course, other complex adaptive entities, or, for the purpose of this paper, other people. Each encounter of person to person provokes a response. These complex responsive processes of interacting, one may argue, actually constitute the ground on which ethical decisions are made. Griffin suggested that when the people in an institution identify the values held by the social group these values only become meaningful and "functional" as they are socially negotiated through interaction among people within the organization (pp. 189 and 211). A dilemma then arises: might it not be as easy for a value of

“what’s mine is mine and what’s yours is mine” or “winner take all” to emerge within an organization as it would be for a value of “love thy neighbor as thyself”? Stacey maintained that complex responsive processes of relating provide the explanation for those dysfunctional values to emerge.

While individuals may have agency, and thus the ability to act, they may not be aware of the ethical implications of their action. In “Emergence of Evil,” Bella (2006) described how a pattern of praise and reward encouraged the Soviet doctor, Alibekov, to become a leader in the development of biological weapons of mass destruction. Zimbardo (2007), in an examination of the infamous Stanford prison experiment, explored how college-aged men from similar backgrounds could so easily assume the roles of guards and prisoners. Zimbardo concluded that it is the meaning people give to the context through their perceptions, interpretations, and interactions that explains their behavior. He concluded that the research participants were not inherently evil or victims. Bella discussed the context of the organization as the enabler of evil. However his diagrams showing actions and reactions of the players in the organization, or his “because” and “therefore” lines of response clearly indicate the power and nature of complex responsive processes ways of relating among people.

While interdependence, dynamic self-organization, and the essential importance of interactions or complex responsive processes are rationales for the need for ethical behavior, they do not provide any guidance for acting as a moral agent, that is, simply, for making decisions on an ethical basis. Any such basis must take into account the dynamical nature of complex adaptive entities as well as a worldview built not on certainties but on possibilities (Prigogine & Stengers, 1997/1996). Griffin (2002) has rejected any stability in ethics.

However, his stance can lead to complete relativism and the inability to choose among actions. If “the ethical interpretation of action is to be found in the action itself” (p. 182), then can complexity science provide anything more than an examination of holocausts, genocides, and quotidian acts of each of us? Can complexity science provide a basis for ethical judgments?

Here is the dilemma in a nutshell: complexity science is descriptive; ethics is prescriptive. They are at different levels of discourse. This paper attempts to resolve the dilemma by demonstrating how the ethical principles of Martin Buber’s *I-Thou* complement the concepts of complexity approaches. Buber’s ethical concepts embedded in *I-Thou* (1970/1923) provide a way of seeing and acting that is in concert with a dynamic, self-organizing, interconnected world view.

#### Martin Buber’s *I-Thou*

Buber discussed the world of relation as “life with nature” (p. 56), “life with men (*sic*)” (p 57), and “life with spiritual beings” (p 57). In discussing all of these, he instructed the reader to avoid classification. Buber described the detached world of examination that can occur when interacting with another human as a separate object. A person can describe any physical attribute, i.e. hair color, eyes, quality of speech, or fluidity of movement of the other and in doing so objectify that person in relation to self. Just as one can see a tree as a member of a species, as a particular form, or as having a certain relationship with the earth, so one can relate to another person partially as having certain color eyes, being a particular height, or as a member of a class. Buber maintained that in this form of objectified observation, the sense of the other person is lost both as an individual and as an integral member of the broader community. But Buber wrote: “Even as a melody is not composed of

tones, nor a verse of words, nor a statue of lines—one must pull and tear to turn a unity into a multiplicity—so it is with the human being to whom I say You” (p. 59). This is a possible solution to the problem identified by Sen in which violence is fostered by turning the human unity into a multiplicity and then from the multiplicity selecting a fragment upon which to act. Drawing on Buber we may reason that to act ethically, one must enter into the world of the other person, and to see that person’s uniqueness as a human being within the broadest sense of a whole community to which everyone belongs.

For Buber, “[T]he longing for relation is primary” (p. 78). The work of *I-Thou* (also translated as I-You) concerns itself with how to be in relation. The first part of his ethical instruction is on how to encounter the other. “[H]e is no thing among things nor does he consist of things. He is no longer He or She, limited by other Hes and Shes, a dot in the world grid of space and time, nor a condition that can be experienced and described, a loose bundle of named qualities” (p. 59). In other words, the other is not seen as a collection of characteristics or as a member of any group at all, but rather solely and completely as himself or herself. This is the first essential step in developing relation and, to repeat, “the longing for relation is primary.”

As to the relationship itself: Buber described the I-You relationship as life itself. Further, he wrote that I can be in a relationship with You, whether You are aware of me or not. To enter into this relationship is to be in full awareness of both one’s own existence and the essence of the other. And this awareness is essential to life. At the same time, one enters into a relationship or reciprocity with “You.” Life is indeed the very relationship of I-You. “I require a You to become [me], becoming I, I say You. All actual life is encounter” (p. 62). In complexity terms: All life is complex adaptive responses.

The Buber scholar and translator Kaufmann (1970) discussed the importance of the German words for *essence* and *essential* in Buber's work. These words, Kaufmann pointed out, are not in opposition. He wrote:

Any contrast of essence and existence is out of the picture. Deliberately so. Every being I encounter is seen to be essential. Nothing is essential but a being. Doing something with my whole being or my whole essence is the same. The realm of essences and what is essential is not outside this world in some beyond. Essential is whatever is—here and now.” (Kaufmann, 1970, p. 46)

The combination of a complexity perspective and Buber's *I-Thou* ethic resonates at international, national, corporate, community, and local fractals of human organization. Bella (2006) described the emergence of evil within a chemical and biological weapons factory in the former Soviet republic. He characterized the evil as emerging within a context that supported and reinforced behaviors that not only allowed, but rewarded, the production of weapons of mass destruction. Zimbardo (2007), in his analysis of the implications of the Stanford Prison Experiment, concluded that the “guards “objectified their fellow students who were “prisoners.” The “prisoners” eventually lost their identity as fellow students in the eyes of the guards through socially constructed processes among the guards and facilitated by the design of the prison experiment. Importantly and perhaps controversially, Bella and Zimbardo came to the same conclusion; it is not necessarily evil people who do evil deeds, but there are contextual factors that can lead to evil deeds, even among the most well-meaning people. Both authors emphasized the importance of context in shaping human behavior, including evil behavior. Bella stressed the significance of personal and professional competence as an important driver of behavior and as an end in and of itself. From his case study, Bella's concluded that “ordinary people” (p. 112) found themselves in contexts in which the troubling consequences of their work was easily ignored in order to

advance their competence, gain support from people whose opinion they valued, and provide identity and meaning for their lives. Zimbardo concluded that the “guards” and “prisoners” socially constructed a reality in which fellow students became prisoners and guards within the context of the experiment. We suggest that through the ability to ignore the troubling consequences of their work or of the experiment, these scientists and students removed themselves from the community of connections with other people described by Buber, effectively placing that community at an objective distance from which it could not penetrate the context in which they worked or functioned. While not referencing complex responsive processes of relating or complexity science more generally, both authors’ descriptions of the negotiation and interactions that occurred among the scientists, bureaucrats and within each of them as internal dialog seem consistent with those described by Stacey (2001) and Griffin (2002)

Imagine the impact on decisions to go to war, to act in a way that strips employees of their livelihood, of manipulations of company shares and pensions if one were to encounter in his or her mind the full “You” of each person affected by the decision. In the following section of the paper, we present a description of a research study that illustrated the interface between complexity science and ethics. This research does not deal with the earth-shattering consequences of producing weapons of mass destruction or the consequences of incarceration, but rather with the daily decisions of one group of health care providers, Doctor of Physical Therapy interns.

#### An Illustrative Study: The Ethics of Physical Therapist Interns

One author (TN) conducted a qualitative research study examining moral agency among Doctor of Physical Therapy students during their final clinical internships. Physical

therapists use a collaborative approach with their patients to enable them to return to fuller functioning in all their activities. The need for physical therapy often follows a devastating injury or disease. In physical therapy education, clinical internships occur before licensure, thus the physical therapist interns are under the supervision of clinical instructors who are licensed physical therapists. During their clinical internships, physical therapist interns assume the role of the physical therapist, but, because their physical therapist clinical instructor maintains full legal responsibility for their patients, these interns must negotiate their actions not only with their patients, but also with their clinical instructors. Thus, their legal and ethical roles are mediated through the clinical instructor. These interns negotiate their ethical role while striving to learn the necessary clinical skills and become socialized into the profession.

During the first portion of this report of the study, the participants and data collection methods and analysis are described. In the second portion, the findings are discussed.

#### Participants and Data Collection Methods and Analysis

The participants in the study include five physical therapist interns and the four physical therapists who served as their clinical instructors. In the study, the clinical internships occurred in public and private hospitals and clinics in the United States.

In this paper, pseudonyms are used for each participant's first name. The interns' and their clinical instructors' pseudonyms, in that order, are: (a) Amy and Anne, (b) Luke and Len; (c) Cathy and Claudia; (d) Rick and Rhoda; (e) Ruth and Rhoda. Rhoda simultaneously supervised Rick and Ruth, a common model in physical therapy clinical education. In this model as implemented here, the interns functioned individually, not collectively as a pair, with patients and the clinical instructor.

Data collection methods included guided journals, three individual, semi-structured interviews with each participant, and separate focus groups for the clinical instructors and interns. The first two interviews occurred after one-third and two-thirds of the internships and the third interview occurred at the end of the internships, which varied in length from eight to fourteen weeks. The focus groups occurred after the internships ended.

The instructions for the guided journals and the individual interview questions were intentionally designed to avoid specific reference to ethical dilemmas until the final interviews. This design characteristic allowed the participants to describe situations that might have ethical dimensions without having to categorize or “name” them as such. For example, the instructions for the journals asked the participants to write about memorable patients, troublesome events, conflicts, or critical incidents. The semi-structured interview questions concerned patients who had an impact on them or situations in which they were constrained from doing what they knew was right. In the final interview, they were directly asked to discuss situations that presented ethical problems for them. The questions for the clinical instructors were adapted to reflect their role as clinical teachers with students in these situations. The data sources were journals, verbatim transcripts of all interviews and focus groups, and field notes. An inductive coding technique (Miles & Huberman, 1994) was used to analyze all data collected during the study. That technique allowed for emergence of codes and, subsequently, themes without preconceived notions of what the data contained.

### Summary of Findings

The summary of the findings is presented below includes three major sections. In the first section we describe the genesis of the ethics expressed by the interns. In their expression of the development of their values, one can see differences not only in what they

believe, but in how their beliefs developed. In the second section, we report how they conceived of their relationship while working with patients. All of the interns faced ethical dilemmas of varying significance. For the purposes of this article, two common dilemmas that concern beneficence and patient autonomy are described: working with difficult or unlikable patients and external influences on the decision to discontinue treatment. These dilemmas and the intern's ethical actions are described in the third section. Throughout the report, the data are analyzed from the perspective of complexity science and the ethical implications from Buber.

### *The Origins of Physical Therapist Intern Ethics*

Uncovering what these interns described as the values they ascribe to as they become a physical therapist and how they came to integrate these into their professional lives may provide more insight into the relationship between ethics and complexity science.

All of the interns discussed the importance of their families in their moral development and three specifically mentioned the influence of their religious upbringing. As Cathy said:

If I were weaving a moral blanket, ... there are threads coming from all of those aspects, but it's largely family-based and experience-based, ... my experiences throughout my life and kind of ... learning from my mistakes...

In another example, Luke ascribed his values to his Christian upbringing with its exposure to characters from the Bible and his father's work ethic which he observed while he was growing up. He emphasized the dedication his father had to his job and his family, the honest labor he put in getting up early and returning late to support his family.

The interns described the importance of the socialization that occurred during their professional education, particularly the importance of clinical instructors, faculty members, and fellow students who served as positive, and sometimes negative, role models. This

professional socialization led Amy to value being focused on the needs of the patient, doing everything you can for them, staying competent and educating patients about their problems. She repeatedly stressed the importance of “a patient’s right to know.” With that choice came the realization that she would be responsible for patients who turned their care over to her, which she interestingly described as “a mother who would be responsible for children...I’ve got to look out for them.”

Two of the interns’ values were influenced by physical therapists who treated them as adolescents or teenagers and a third discussed her experience with her grandfather who received physical therapy. Amy and Cathy contrasted the cold medical treatment from physicians with the warmth, caring and educative nature of the physical therapists. Ruth’s perspective was shaped by the relationship she witnessed between her grandfather and his physical therapist and her grandfather’s perseverance to improve despite the significant functional losses from a stroke. Ruth also described a strong value of maintaining hope in the face of disability based upon her experiences as a child with learning disabilities and visual impairments.

In summary, the interns’ ethics were formed by a multiplicity of experiences and factors. In Amy’s, Cathy’s, and Ruth’s case, the “small change” of the physical therapists approach to treatment led to an enduring view of the right way to treat a patient—which is sensitive dependence at work. All of the interns ascribed to the values of honesty and integrity in their role as physical therapists. These two values developed from their upbringing, but were experienced as emergent phenomena as the interns socially negotiated their meanings in the professional realm via complex responses of relating during their internship (Griffin, 2002; Stacey, 2001). As an example, Rick had to negotiate the

professional meaning of honesty when working with a patient who thought he was recovering motor function years after sustaining a spinal cord injury that resulted in paralysis affecting all four limbs. In this situation, the patient's hope, Rick's compassion for the patient, the reality that the patient was not recovering, and Rhoda's concerns that Rick could effectively communicate his findings to the patient were in balance and reconciled through the interaction between the three of them.

### *The Role of Relationship in Working with Patients*

Physical therapist interns, as with many other health care practitioners, arrive at a diagnosis for their patients, a label that can separate or objectify that patient. As Kleinman wrote, "The recording of a case in the medical record ...is in fact a profound, ritual act through which illness is made over into disease, person becomes patient and professional values are transferred from the practitioner to the 'case'" (Kleinman, 1988, pp. 130-131). Simultaneously, the professional ethic of beneficence, a caring approach, and patient-centered care serve to place the patient in the broader context of humanity. All of the interns described the importance of all three in their moral role as physical therapists. Some of the interns had a greater tendency to describe their patients as a "stroke," a "low back patient," or in other objectified terms or focused primarily on the clinical aspects of the case. Other interns talked about how they established a relationship with their patients, demonstrated caring, and focused on the patients in the context of the person's broader social role. Luke said, "I might do a good job as a physical therapist if I don't care, but I'll do a better one if I do." He talked about including family members in physical therapy, saying he was "bringing them into the circle" with the patient and him. Cathy described one patient this way:

She was in her early 40's and she had a young child, she had a six year old little girl and just that alone really made me think because for a woman her age with a

young child to be in the condition that she's in and the doctors were really talking about hospice care, I mean it - just it tugged at my heart. It really made me kind of think ... what's going to happen to this family?

However, developing and maintaining relationships with patients was not free of difficulty. Luke's view of the importance of relationship with his patients and the sources of his values led him into an ethical dilemma. He was assigned a patient with HIV infection. He described his initial discomfort, "I don't want to work with this patient" because of his "life preferences" or the disease itself. He described it as a "pretty dangerous situation...it could conceivably be life threatening" because of the possibility of there being sweat "not a huge transmitter" as he described it. He said he felt a "little shaky" or "a little bit nervous" when he was in body-to-body contact doing a transfer. Ultimately, he described it as "integrity" that enabled him to treat this patient, "this is what I've chosen to do" and "concern for the patient" and recognized "here I am making a judgment on somebody I've never even met...before I even walk into the room."

Amy described a "low back patient who was having hip problems." She said this patient would not accept her explanation for his problem, would not participate fully in treatment, and left her feeling frustrated because she "wanted him to grasp everything." She described this relationship as "superficial" either because she was "frustrated with him" or their "personalities didn't mesh."

Using an analytic framework that emerged from the data, the interns fell along a continuum in how they conceptualized their relationship with patients that corresponded to Buber's I-It at one end and I-Thou at the other.

Individually, Luke and Amy were struggling with the I-Thou versus I-It dilemma. Luke seemed to have the greater ethical problem. He labeled the patient. He ascribed greater

powers to the patient's illness than it actually has. And he fragmented the identity of the patient, so that in Sen's terms, he became only an HIV case. Nevertheless Luke appeared to overcome his initial I-It and move, through his values using an internal complex responsive process of relating (Stacey, 2001) into I-Thou. Amy seemed unable to complete the relationship because she was unable to move beyond seeing the patient as a case. In general, she fell closer to the I-It end of the continuum in how she conceptualized her role with patients.

### *Facing Ethical Dilemmas*

Two common types of ethical dilemmas may serve as exemplars of the way in which the interns took ethical action. In the first dilemma, all of the interns described working with difficult patients. The interns' approaches to working with unlikable or difficult patients and the way in which they reasoned through those situations provide further insight into their ethical reasoning. Luke explained that when he encountered a patient who was difficult, he saw that person as someone's wife, mother, or brother. He said, by seeing the patient as someone important to somebody else, he could then see that person as someone who he could help. He said, "I can't look at them through my negativity at how they are right now." Rick encountered patients he distrusted and Cathy worked with a patient who was making racially biased statements. They both described internal monologues in which they realized the nature of their judgments as only focused on a fragment of the patient's identity and moved beyond those to understand the patient in a broader context. Amy found herself feeling frustrated by patients who do not cooperate with the plan for treatment,

"...if you're not going to put forth the effort and the participation, why come? ...I guess I'm frustrated, I mean I was a competitive swimmer for 12 years so I've been in and out of physical therapy. I want to get better, I'm going to show up, I'm going to do everything possible that I need to do and ... I guess I just don't understand if

you're gonna come to therapy... if you are not going to put forth the activity or the effort and really do the exercises what's the point?

Luke seemed to approach his patients as another being who has a place within a community and a family. With Rick and Cathy an ethical stance towards the patient as a person emerged from a fragmentary logic via internal complex processes of relating. Amy saw herself in her patients. This egocentric view is not consistent with I-Thou, which requires two people to complete the relationship. She seemed to approach her patients as someone who has a problem to fix; or, to state it extremely, as objects.

In the second dilemma, both Luke and Amy were faced with respecting patients' choices versus supporting their clinics and their own caseload. They each had patients who could have continued treatment based on insurance coverage but who did not want to continue. In Amy's case, she gave the patient the choice to continue or not, and when he chose not to continue, she agreed and discharged the patient. In Luke's case, he concluded two patients would benefit from physical therapy but neither wanted to continue. With Len's advice he discharged the patients. Luke, Len and the patients engaged in a negotiated process in which everyone's needs were satisfied and Luke concerns for the patient's safety and continued improvement were met. Since the clinic's financial viability depends in great part upon insurance payments, one might have argued that it was the job of Luke and Amy to advance the clinic's interests. In addition, the more opportunities Luke and Amy had to work with patients, the more they could learn. It could be argued that retaining the patients would also be in their self-interest. However, both were clear that the decision rested with the patient.

Both Luke and Amy saw themselves in relationship with the patients. In both instances they socially negotiated what was in the patients' best interests in that particular

interaction. In fact, they not only negotiated with the patients, but sought advice from their clinical instructors. This is an example of complex responsive processes at work. The interns' reasoning in these situations is reflective of an emergence of an agreement about what constitutes the best care for the patients and who has agency for deciding whether to continue care in an interaction between intern and patient with consultation from the clinical instructors. Ethical reasoning can be seen as an emergent phenomenon that occurred through negotiated interactions, interactions among the values of the intern, the desires of the patient, and the knowledge of both the intern and the instructor. The primary contextual factors influencing the interns' decisions seem to be their patients' needs for treatment balanced with the patients' choices, as opposed to the opportunity to further the financial gain for the clinic or increase their competence. These choices are of note when compared with Bella's (2006) analysis of Dr. Alibekov's actions.

### Conclusion and Summary

How a person acts is, at heart, an ethical question. The research explored the interns' stance towards their patients from Buber's framework of relationship with the patient, as another human, "I-You" compared to a stance of objectification, "I-It," such as a "total knee replacement." The research used a complexity science perspective to explore how these interns socially negotiated action when they found themselves confronting the inevitable ethical dilemmas contained in the clinical environment. It was through cooperation and interaction with patients and their families and their clinical instructor, along with their internal dialog and reflection, that these interns negotiated action.

While the interns encountered similar ethical situations, there were distinct differences in how they acted in those situations and in their relation to patients. All of the

interns described complex responsive processes of relating, both internal and external, consistent with Stacey's (2001) and Griffin's (2002) work. The meaning of their professional values emerged from their personal values in which their individual history was considered in a recursive, reflexive process within the particular circumstances during the internship. The actions they chose to pursue in ethical situations were arrived at via complex process of relating with their clinical instructor, their patients, and within themselves. They socially constructed the meaning of their role as physical therapist interns when faced with ethical situations in a dynamic, self-organizing, interdependent way. In addition to their personal histories and values and their professional values, they considered the constraints of the environment, the patients in an objectified (I-It) or personal (I-You) relationship, and their professional duties. There are similarities between the basis for these interns' actions and those described by Bella (2005) and Zimbardo (2007). However, there is an important difference. Given the opportunity, the interns did not become good people who did bad deeds. Scalar effects within the context of the situations offer a plausible explanation. During the internship, there was one student interacting with a patient and one clinical instructor, thus less amplification of the positive feedback loops that reinforced the "bad deeds" among the multiple players involved in the weapons lab or the prison experiment. Based on the work of Bella and Zimbardo and the work of the research study described here, we would argue that complexity science provides a description of ethical action, but not the necessary explanation of the basis for that ethical action.

What is interesting is the nature of the expressed duality in relationship as "I-You" and "I-It" that existed constantly in these interns' description of their work. They portrayed aspects of the importance of relationship and the patient as a human being for whom they

care and had a relationship while describing their patients as the diagnosis or problem. We argue that the stance of the physical therapist interns towards their patients, vis-à-vis Buber, provides a basis for understanding ethical action. If one were to picture a continuum extending from the objectified stance of “I-It” at one end and the stance of personal relationship of “I-You” at the other, each intern fell at different places along that continuum. The interns who had a greater tendency to fall towards “I-You”, e.g. Cathy and Luke, also tended to socially negotiate action that was patient-centered and collaborative in nature in ethical situations. They also had the ability to recognize when an objectified stance led to prejudgment and used internal processes to overcome that stance and move towards one of an understanding of the patient as a person in a social context. Amy, the student who had the greatest tendency to fall toward “I-It” in her relationship with patients, tended to take action that was more student-centered and directive or abdicated the decision to the patient without as much negotiation. She also did not recognize her prejudgments or biases about patient’s behaviors, and thus, did not internally challenge her decisions or attitudes. The other two interns, Rick and Rhoda, did not exhibit as consistent tendencies as the other interns. Their approaches to action tended to fluctuate between clinician-centered, directed actions with little negotiation to those in which they actively arrived at a patient-centered decision.

One might ask how decisions to go to war, decisions to manufacture weapons of mass destruction, and decisions regarding the care of one patient in a physical therapy setting are linked. In this paper we have proposed that they are all fractals of the same complex adaptations. In each situation complex responsive processes of relating are set in motion without conscious awareness of the ethical component of the decisions. The very situation itself, again without the interrupting force of a conscious consideration of agency in an

ethical framework, continues to reinforce a direction. In Sen's terms, violence or violation of individuality may occur as a result of fragmentary identification of the other. In Bella's and Zimbardo's terms, evil may emerge as readily as good. In Buber's terms, the "you" remains an "it."

Having an ethos is having a basis for making ethical decisions. It does not eliminate ethical dilemmas. Indeed, it may exacerbate them. In this paper, we have argued that the ethical perspective is two-fold. It encompasses both a complexity perspective of dynamic complex responsive processes of relating; processes that will have a life of their own if not interrupted by or informed by awareness. And it suggests that Buber's concept of I-You, in opposition to I-It, is the ethical principle that can inform the awareness. Indeed, just as a tree exists in its oneness and its multiplicity, so one cannot separate human action from the very ontology of humanness.

*O chestnut-tree, great-rooted blossomer,  
Are you the leaf, the blossom or the bole?  
O body swayed to music, O brightening glance,  
How can we know the dancer from the dance?  
William Butler Yeats*

## References

- Bella, D. A. (2005). Emergence and evil. *Emergence: Complexity & Organization*, ISSN 1521-3240, 8(2), 102-115.
- Buber, M. (1970). *I and Thou* (W. Kaufman, Trans.), ISBN 0684717255. (Original work published 1923).
- Bronowski, J. (1978). *The Origins of Knowledge and Imagination*. ISBN 0300024096.
- Griffin, D. (2002). *The Emergence of Leadership: Linking Self-organization and Ethics*. ISBN 0415249171.
- Kleinman, A. (1988). *The Illness Narratives: Suffering, Healing & the Human Condition*. ISBN 0465032044
- Miles, M.B. & Huberman, A.M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook* (2<sup>nd</sup> ed.), ISBN 0803946538
- Prigogine, I., & Stengers I. (1997). *The End of Certainty: Time, Chaos and the New Laws of Nature*, ISBN 0684837056. (Original work published in French, 1996).
- Sen, A. (2006). *Identity and Violence: The Illusion of Destiny*, ISBN 0393329291
- Stacey, R. (2001). *Complex Responsive Processes in Organizations: Learning and Knowledge Creation*, ISBN0415249198.
- Zimbardo, P. (2007). *The Lucifer Effect: Understanding How Good People Turn Evil*, ISBN 0812974441