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Peter J. Whitehouse

Case Western Reserve University, peter.whitehouse@case.edu

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The Rebirth of Bioethics: A tribute to Van Rensselaer Potter

Peter J. Whitehouse, MD-PhD
Case Western Reserve University
Cleveland, OH, USA

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Corresponding Author:
Peter J. Whitehouse, MD, PhD
Case Western Reserve University
12200 Fairhill Road, Suite C357
Cleveland, OH 44120-1013, USA
Phone: (216) 844-6448
Fax: (216) 844-6466
E-mail: pjw3@po.cwru.edu

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Abstract

Van Rensselaer Potter's original concept of bioethics as a global integration of biology and values was designed to guide human survival. As a basic cancer researcher Van was aware of the complexities of biological systems and the dangers of uncontrolled growth. His attention to the creation of human knowledge and the incorporation of ecological concepts in his theory remain important, yet largely neglected, contributions. Van's attempts to bridge various forms of bioethics to form a global bioethics continued throughout his long career at the University of Wisconsin, which ended with his death last year. Bioethicists should heed his warnings about our unsustainable health care systems and work towards changing their values, while considering the example of Van's authentic life style as inspiration.

The future of bioethics lies to a considerable degree in its past. The original formulation of bioethics by Van Rensselaer Potter included a profound commitment to the future (Potter 1971) that the world desperately needs bioethicists to rediscover. Our health care systems are unhealthy medically and morally. Bioethicists need to find the courage and wisdom to lead the revolution in organizational change and not be wedded to unsustainable systems. This paper is a critique of the aspects of contemporary bioethics as a profession and a plea to make our thinking more global. It joins other attempts to revisit the past of bioethics to be constructively but strongly critical of its future, particularly its relationship to medicine and society (Stevens 2000). It also is consistent with those re-examining the future of environmental ethics (McKim 1997;

Sagoff,1991); the social aspects of environment (Marmot 1998); nature-based spirituality in bioethics (Kaebnick 2000); the healing power of nature (Frumkin 2001) and the ethics of public health (McMichael 2000).

In the United States Potter's original coinage of the term "bioethics" in 1970 seems to be viewed by some as an irrelevant historical note (Potter 1971). Whereas some have recognized his contributions and fostered a broader view of bioethics (Reich 1995a, 1994b). Potter's legacy is not taught in many biomedical ethics programs. Moreover, he is not even adequately included in the otherwise stimulating histories of our field (Jonsen 1998, Engelhardt 1996). His concepts of bioethics evolved in the context of a university cancer research center and lost out in the intellectual competition to more dominant formulations that emerged blessed by money, power, and politics in Washington. Potter's ideas deserve not only to be rescued from being an endangered species but also promoted because of their survival value for life on this planet. It is not only Potter's ideas (which were inspired by many others, including notably the pioneer land ethicist Aldo Leopold) (Leopold, 1949) but also his values of personal accountability, humility, wisdom, mentorship, and spirited citizenship that deserve recognition for their goodness.

I am a bioethicist (legitimated by a professorship and then a Master's degree from the Center for Bioethics, Case Western Reserve University). I was Van's friend, mentee, and colleague. I loved Van and his ideas. My career evolved from work in clinical and research ethics in dementia to more general concerns about aging and cognitive enhancement, and now to organizational and environmental ethics. As a geriatric neurologist and neuropsychologist I am concerned about the dementia of professions (hardening of the categories) and the dominance of

material values in health and educational systems. I believe that the 30 years of contributions from the field of biomedical ethics to improving the quality of life of those suffering from illness should be celebrated. The major challenges lie ahead and I do not yet see us rising to meet them.

V.R. Potter the Man

The biography of Van is particularly relevant to the history of an idea, the concept of autonomy that has played such a dominant role in biomedical ethics. Rather than focus on individual rights Van emphasized personal responsibilities. Van followed a creed that was included in all his books (See Table 1)(Potter 1988). To call oneself a bioethicist in his view is to follow an environmental and activist credo. He was a virtuous bioethicist whose authenticity was remarkable. My personal relationship with Van, as well as the intellectual appeal of his ideas, motivated my own interest in rebirthing and extending his concept of bioethics.

Van was born August 27, 1911 in South Dakota and raised on the family farm. His father helped him imagine a different career than farming. In 1933 he obtained his degree in chemistry (high honors) from the South Dakota State University. Van moved to Madison with his wife, Vivian, and received his PhD in Biochemistry with Professor C.A. Elvehjem in 1938.

Van had a passionate commitment to his work in basic research on cancer and in the later years to the bioethics movement. He spent his entire academic career with the exception of fellowships in Sweden, England, and University of Chicago (and occasional visits elsewhere to other universities) at the McArdle Laboratories at the University of Wisconsin. As a basic biological researcher, Van worked with some of the pioneers of biology and chemistry and saw

the emergence of biochemistry as a field. He lived close to work and would frequently bicycle from his home to the laboratories to monitor experiments and assist colleagues. Remarkably, when he no longer needed a large house to raise his family of three children (Karin, John and Carl) he purchased the house next door where he lived with his wife Vivian until she moved to a nursing home. Van was a devoted father and ultimately, caregiver for his wife of sixty-five years. His local commitments to family, university, and community may have limited his national impact. Many who spent time with him in Madison whether it was a few days or a few years left profoundly affected by his life and vision.

Gerry Lower first met Van as a freshman at the University of Wisconsin in 1963 as part of a pre-med evening seminar series (Lower, personal communication). He found Van able to get to the heart of any biomedical issue. Van did it in a way that attracted many students to a father-son mentoring relationship with him. Gerry ultimately received his PhD from the McArdle Laboratories where Van worked. Gerry reports that he was so motivated by his relationship to Van and his ideas that he has spent his life extending those ideas. His work has focused on bridging science and nature-based religious/spiritual thinking.

By contrast Bill Atchley was influenced first by Van's writings (Atchley, personal communication). As a Professor of Medicine and cancer researcher at the University of California at San Francisco, Bill became involved in leading clinical ethics at that institution. Later Van's ideas helped inspire Bill's creation of the International Bioethics Institute in San Francisco. Long a disciple of Van's Bill finally met him for a few days in Wisconsin the year before Van died. He spent time with Van and relatives of Aldo Leopold and was an expert on

Leopold's thinking and its influence on Van. Thus through out his life Van inspired others to pursue careers that built on his work and life.

I spent several long weekends with Van over the past several years with my video camera, still camera and, recorder conducting an oral history (Whitehouse 2002a, 2002b in press). I shared many telephone calls and many more emails. Needless-to-say I caught the Potter bug. We wrote together (Potter and Whitehouse 1998, Whitehouse 1999, Potter 1999) and I was honored to speak at his Memorial Service (Whitehouse 2002).

Van's basic work in cancer metabolism led to his election to the National Academy of Sciences. He is credited with developing the concept of disrupting multiple metabolic pathways in cancer cells in order to treat these disorders of abnormal cell growth. Many of his friends and colleagues at McArdle died of cancer so Van had the experience of seeing cancer not only as a biological but also as a personal challenge. Moreover, the destructive potential of uncontrolled cell proliferation was a model that influenced Van's thoughts about the consequences of the explosion of the world's population (Potter 1996). He was active in other professional associations including the American Society of Cell Biology (President, 1965) and the American Association for Cancer Research (President, 1974).

Van was an active member of the University of Wisconsin community. Many students and colleagues fondly remember him locally, nationally, and internationally. Many became famous in their own rights and those he influenced included Nobel Prize winners. He thought a great deal about learning and the purpose of universities. In 1990 he published the report of the

Interdisciplinary Studies Committee on the future of man, which he chaired. It called for university scholars to take major responsibility for survival and quality of life in the future (Potter et al. 1970).

Van's academic career was remarkable both for its success in a relatively narrow area of basic oncology and its intellectual breadth, which led to the description of global bioethics. Van acknowledged his principal intellectual debt to Aldo Leopold. Although Leopold was a faculty member who overlapped in time with Van at the University of Wisconsin, the two never met. Leopold is known for his scientific studies of game management and for the development of a land ethic, an early formulation of environmental bioethics. To Leopold a behavior was good if it sustained the integrity, stability, and beauty of the land (ecosystem). Such words, particularly stability, might be viewed as outdated by modern ecological thinkers who focus on dynamic natural systems and even challenge old conceptions such as what is a biosphere. (McKim 1997)

In addition to his work ethic, Van's humility was a central aspect of his personality. He spoke about this topic in his presidential address to the American Association of Cancer Research (Potter 1975). He was humble in the face of nature and the recognition of the complexities of biological systems. His humility did not limit him from feeling that his ideas had been neglected by mainstream bioethics, however. His understandable irritation would occasionally manifest itself in a personalized way but it more often reflected a sense of sadness that the neglect of his ideas was in fact an important omission relevant to human survival. Given that he was developing ideas that he and I believed are critical to the survival of human beings on this planet, his humility was even more remarkable.

An aspect of Van's personal beliefs that lies embedded in his writings is a deep nature-based spirituality (Potter 1994). Van did not himself participate in formal religious activities, although his children were exposed to different religious belief systems. Moreover, he provided financial support to the Unitarian church. As he approached his own death, he was able to see that experience as one of completion yet mystery. He realized the necessity for personal death as a part of the further evolution of nature. He wrote eloquently on dying with personhood, what he called a Socratic death (Potter 1999). He thought deeply about his own death in relationship to potential age-related disabilities, which he experienced through friends and his wife who were residents of nursing homes. My writings on dignity in persons with dementia and experiences with caring for persons with cognitive impairment colored his attitudes about his wife's condition and care. Van died of sepsis having decided to forgo antibiotics in the face of an infected artificial hip. He died gently on September 6, 2001 shortly after his ninetieth birthday in the company of his family.

Van's ideas were clearly influenced by his family. His wife Vivian and her Danish family were scholars of music and strongly influenced the development of his non-scientific concerns. Van himself was influenced by the humanities as can be seen of the expression of the mysteries of nature through his own artwork. He developed a model for a metal sculpture of the DNA molecule that had water flowing down its helical structure. This work was eventually created and displayed at the University of Wisconsin.

Van's family lived their own bioethics credo. Van built a Danish Stuga or country shack on property that was purchased outside of Madison. He would retreat there with his wife and family to the more rural environment. Two inexpensive plastic lawn chairs sitting in the woods marked a spot of frequent contemplation.

Van however, made important contributions to his own community of Madison and was active in various civic ventures. He was, for example, one of the driving forces behind the creation of the Madison Civic Convention Center called Monona Terrace. A conference honoring Van is being planned by the university perhaps to be held in this setting.

Potterian Bioethics

Van coined the term "bioethics" when on one of his frequent bicycle rides from his home to the McArdle Laboratory. He has been trying for many months to find the right words to express the need to balance the scientific orientation of medicine with human values. He considered many other words, one of which was exobiology but chose bioethics perhaps inspired by his own training in the emerging field of biochemistry. Interestingly, exobiology is now the discipline of studying life elsewhere than the planet earth. I am sure Van would endorse expanding his concepts of bioethics to include the extraterrestrial domain of life and biology. Not the name itself, but the concept of his bioethics as critical to human survival was first outlined in a lecture at South Dakota State University entitled, "Bridge to the future, the Concept of Human Progress" (Potter 1962). In 1970 he first used the term in print in an article entitled, "Bioethics, the Science of Survival" (Potter 1970).

His first opportunity to fully express his conception of bioethics was in his 1971 book, Bioethics, A Bridge to the Future. The concept of bridging played a pervasive role in much of Van's early thinking as well as to his later thoughts about global bioethics. In the original conception, bioethics was meant to be a bridge between science and humanities. Increasingly, he felt the need to link what he came to realize had become mainstream biomedical ethics with environmental ethics. During his career he continued to modify the term bioethics to differentiate his conceptions from the dominant view of biomedical ethics. He eventually selected the term global bioethics and this became the title of his second book that he dedicated to Aldo Leopold in 1988 (Potter 1988).

As Warren Reich rightly points out, the word global in global bioethics has multiple meanings (Reich 1995a, 1994b). In one sense it recognizes the intellectual breadth of Van's efforts. Van believed that bioethics should include not only medical ethics and environmental ethics but also social and religious ethics. Moreover, because of his focus on the health of the biosphere, global implies attention to the international and planetary aspects of health ethics.

Ironically, Van is more well known and respected outside the United States than in his home country. In 1990 Van was invited to give his first major international lecture on global ethics in Italy at the invitation of Professor Brunetto Chiarelli from Florence, who now edits a journal called *Global Bioethics* (Chiarelli and Schweinsberg unpublished 2000). During the later years, Van did not travel but was honored by various international groups and gave presentations by videotape in Tokyo (1998 - Professor Hyakudai Sakamoto), Mexico (1999 - Professor Manuel Velasco-Swartz), and Spain (2000 - Dr. Marcelo Palacios).

It is not only ironic that he is better recognized outside of the United States but also indicative of the challenges for Americans and perhaps American bioethicists to develop fully international perspectives. For example, because of the dominance of technology and molecular genetic approaches in American biomedicine, (Potter 1995) bioethicists have largely ignored global public and environmental health issues.

During his last year, Van was explicitly connecting his ideas with those of other international bioethicists. He created an electronic Global Bioethics Network and was ably aided in this endeavor by his granddaughter Lisa (Potter 2001). Discussions with Hans Schweinsberg (Canada) about forming an international council occurred over the years. Moreover, Van felt his ideas were linked to those being promoted by the United Nations through a variety of international declarations. Van led a growing network of individuals and affiliated organizations that saw the need to take bioethics to another level of intellectual and international concern. Van believed that global bioethics provides a framework for evolution as well as a moral compass that counter balances our society's principal focus on personal privilege. His bioethical formulations were to promote a secular understanding of science based on an understanding of evolution (but respecting organized religions). He was deeply concerned about an acceptable form of human survival.

During the time that I worked with Van he also considered several other terms to capture the essence of his ongoing work. In fact, he considered the term "bridge bioethics" emphasizing the importance of linking different forms of bioethics (Potter 1995; 1999a). He also became

increasingly concerned about international justice issues and his ethics included a focus on “privilege bioethics.”

Van described the invention of the term bioethics as a “eureka experience.” I shared such an experience in my own work with Van. In one of my early conversations, I suggested the idea of a deep bioethics (as a blend of Van’s global bioethics and deep ecology). The advantage of the notion of a deep bioethics is that it adds another dimension to the spherical notion of a global bioethics. “Deep” honors a spiritual dimension at the core of bioethics. Deep ecologists are those who felt a mystical connection to nature and who criticized those who addressed ecological issues only from materialistic and short-term perspectives. Thus, deep bioethics encompassed both the intellectually broad, international nature of Van's interests while making explicit that nature is a source of values for bioethics. The concept of biophilia (Wilson 2002) or love of life can be viewed as one aspect of the depth of bioethics. Certain religions and spiritual practices (especially indigenous religions) have nature-based values at their core.

One of the challenging ambiguities of the term “deep bioethics” is that it implies that those who are not deep bioethicists must necessarily be narrow or superficial. It would certainly be inappropriate to label most mainstream bioethicists as superficial and narrow. However, in many ways the term deep bioethics does highlight my criticism of the field.

The concept of deep bioethics has not been fully elaborated. Van himself in an address called it the third wave after the original bioethics formulation and then global bioethics (Potter and Whitehouse 1998). However, he eventually returned to the concept of global bioethics in part

because this had captured the imagination of international scholars. Deep bioethics is potentially an even greater challenge to secular bioethicists than global bioethics because it values intuition and bases some of its moral beliefs in spiritual connection to nature. As an ethical concept though it is limited by what is meant by the word “deep.” Early deep ecologists assigned equal value to all life forms (Naess 1995). Other thinkers recognized that “cows do scream louder than carrots” (Sessions 1995) i.e., that ecological systems’ thinking and moral deliberations need to recognize that, although all life has value, different values may dominate in different circumstances. For example, is the last member of a plant species more valuable than one member of a common insect species? This author believes that exploring the depths of deep bioethics will be essential for without the spiritual, human life is meaningless and will evolve into extinction. The study of evolutionary medicine will likely contribute to an understanding of how health and values changed over time in response to different environments. An aspect of health is adaptation to environment. Community values are a blend of shared intellectual principles and affect. They also change through time in response to cultural and environmental context. You can, however, make the case that our values may change our behavior and thus the environment we live in. Accordingly, our health status may change because of discordance between our evolutionary biology and present environmental context. The study of moral ontogenetic development has contributed to our understanding of human values. Similarly, the study of the phylogeny of values may be critical. We need not assume that ontogeny recapitulates phylogeny (or vice versa) rather that they are both complex changing circumstances in which genes and environment interact. However, this endeavor will demand taking the moral status of non-human life forms more seriously than contemporary, particularly scientific, frameworks do. As a dominant cultural force we must watch science (and religion, especially

currently in the Catholic Church) in its response to life (and death) circumstances. Scientists can destroy life to understand life just as we eat to live. But, the respect shown to “subjects” –human and otherwise should be enormous. Arrogance, especially in Nobel Prize winners should be challenged. There is wasteful, disrespectful, excessive and heartless killing of animals in science.

Another aspect of Potterian bioethics that distinguishes itself from other forms of ethics was its earlier and late attention to the role of human cognition. Van was aware that human beings produced bioethical thoughts and feelings. In his first book he talked about cybernetic approach and the need for us to understand the complex inter-relationships that occurred in natural systems. He drew insightful parallels between natural and cultural systems. As he grew older he intensified his interest in the process by which people learn to be wise about complex value judgments concerning natural systems. Part of his own growing wisdom resonated with his early focus on bridging to the future. Van was explicitly concerned about the future in a way many other bioethicists are not. He felt that it was essential that we pay attention to issues that were difficult for human beings to grasp because of their complexity and long-term nature. Part of Van's wisdom was also to recognize the limitations of knowledge. In fact, he used the term toxic knowledge to point out that some knowledge, particularly if applied in the wrong way could in fact, be harmful. As a practicing scientist he was well aware of the dangerous ways in which new information gained through empirical science could be misused and lead to unwise actions. However, he avoided contentious dualistic arguments between reductionistic science and global humanities thinking and called for integration of the two.

Avoiding simplistic dichotomies that create unproductive controversies, for example nature versus nurture, is critical to the evolution of a global and deep bioethics. Integrating perspectives from clinical medicine, genetics, neuroscience, philosophy and ethics (Hundert 1995) is consistent with Van's original efforts to bridge many fields relevant to biology and values. As Hundert points out the easy answer to the nature-nurture debate is to say that both influences are always acting together in any clinical and other circumstances. However the contribution of Hundert and others is to have us examine our very thinking about the broad categories that we use to try to understand reality. As he points out, a Hegelian focus on process and progress should permit us a deeper comprehension of how our minds interact with the world. In my view, part of the solution to avoiding unhelpful controversy is to recognize that nature is nurturing. We are part of a web of human relationships (society) but also the webs of nature (ecosystems). Culture evolved through evolution as an adaptive mechanism. Webs of human relationships are parts of the interacting web of all creatures. Mutual interdependence (not independence as we Americans like to think) is the theme for both. We think of nature as fixed and stable (e.g. our genes) and culture as more dynamic in affecting human behavior. Nature is ever changing and culture can be stagnating. We are a part of nature; we evolved not only to survive but to thrive. It remains to be seen whether our natural gifts of complex thinking and emotions will in the long run enhance quality of life or contribute to the destruction of life on the planet.

As a broad statement, one might say that Eastern philosophies address relationship and process better than Western philosophies. The Ying/Yang symbol captures that categories are fluid and that, for example, nature and nurture are in dynamic relationship with each other (Whitehouse et al. 2001). Moreover, within each force alone one finds the other. The differentiation between

religion and philosophy is also less evident in the Eastern traditions, not so influenced by the so-called Enlightenment in Europe. My belief is that it will take more than a rational focus on concepts and even values, but rather an emotional commitment akin to a spiritual or religious transformation in order for us to help create a sustainable world. The power of molecular and information sciences is increasing enormously. A global bioethics must embrace their potentialities as part of a positive attitude towards the future – it is in our nature and nurture to be curious and learn about ourselves and our worlds. Never must we forget that in our hearts we are still animals, albeit clever ones.

Relevance of Potterian Ethics to Current Day Ethics

The field of bioethics is at a critical stage of evolution having now passed the thirtieth year of the development of bioethics programs. It is in a phase of professionalization attending to both the ethical framework for clinical and industrial bioethical consultation and the creation of the next level of academic organizational success, namely, departments, and PhD programs. The American Society for Bioethics and Humanities and the organizations that amalgamated to create this unified organization have considered creeds for ethics consultation. However, bioethicists are struggling with the need for and content of specific ethical creeds in their own practices. Such statements of basic values should address not only individual practice, but organizational ethical issues as well. For example, given the increasing number of health organizations that are themselves becoming more environmentally responsible, the American Society should adopt a green policy for example, for the selection of meeting sites and other organizational activities. Another aspect of ethics practice, which is under intense scrutiny, is consulting for the biotech

industry. When do bioethicists become apologists for our materialistic, nature-controlling, conflict-ridden, fantasy driven, biotechnology industry? When do they really offer a chance for society (and industry) to hear the voice of reason (and passion) in independent opinions? Van, who was practicing at the beginning of the development of the science that led to the biotechnology industry, would worry about bioethicists and their values in these circumstances. According to Gerry Fowler, Van developed the “Potter-Elvehjem” tissue homogenizer but did not commercialize the device. This Teflon mortar and pestle used to create cell suspensions was a key device in early cancer research.

It would also be interesting to know what Van might have to say about the development of PhD programs in bioethics. Clearly, he would support the notion that exposure to biology, health sciences, and empirical ways of analyzing data would be an important part of the curriculum. However, I also believe that he would ensure that the humanities were not neglected. He and I would be concerned that PhD programs modeled too closely after the sciences would in fact, continue the process of co-opting bioethics into accepting the dominant mode of how knowledge is created and disseminated. Might a bioethics PhD program actually bring wisdom back into those degree programs that purport to produce lovers of wisdom?

Another concern of Van’s about biomedical ethics was the general inattention to organizational ethics and to public health concerns (Potter 1993). The Joint Commission on Accreditation of Health Care Organizations requires that health systems have not only clinical but organizational ethics programs. Hospitals as dominant players in the health care scene should look at their treatment of life and death. Consider the birth experience. The hospital is the environment of

the newborn infant and the mother who has just given birth. Both human beings must make major adaptations after this challenging experience and can do this best if they are together, because their interactions benefit each other's physiology in ways that create an upward spiral of health for them both. This can only happen if they remain together after birth. Hospitals do much to distort the birth of the mother (and father) and baby as mutual caregivers. (Anderson 1989, Dombrowski et al. 2001). Hospital practices and policies should support not limit our caring for others from the very beginning to the end of life. End of life care in hospitals is a deathly subject.

However, health care systems should focus not just on policies for the organization's internal workings but also on the broad impact of hospitals and other organizations on health. Many hospital health systems have a negative ecological impact on their environment by virtue of their enormous size as they create parking lots and discharge highly toxic waste into our watersheds. It is time that bioethicists stand up and ask our health care systems "Are you doing enough for the health of the environment and our communities?" The post 9-11 focus on bioterrorism and public health highlights that our health system priorities in this regard are distorted. Too much money is spent on acute technological medicine compared to preventative psychosocial education. It is time for bioethicists to address the broad implications of bioterrorism on our health care systems and values. Who gets labeled a terrorist is a political act. Let me repeat that the label terrorism (or more powerfully focused as terrorist) will subtly shift in meaning depending on political and environmental circumstances. More generally, bioterrorism could be viewed as the application of the power of biology and its ability to create fear and harm amongst individuals and communities. Perhaps in the long run unintentional bioterrorists (of a different

kind) at home who are part of the health establishment will be a greater threat to our long term health than foreign bombers. Recently, I called Van the ultimate anti-terrorist for searching across countries and religions for common values that bind us together (Potter 1994, Whitehouse 2001). Such bridging is so critical at this time in the history of our species. A global bioethics based on love of life could be an essential part of changes in attitudes necessary for sustaining life on the planet.

A major current focus in bioethics is exploring the implication of genetic technology. Whereas, gene-based diagnostic tests and therapies offer great promise, this promise is likely to come only at the cost of tremendous material investment in the area, contributing to the neglect of interventions in a community health framework that would in the short and long-term have greater benefits for the health of the world's population of people and species than effects on rare genetic or late life chronic diseases.

Van did believe in the importance of education and learning and the creation of both personal and collective wisdom (Potter 1972). Van and I had very few moments of discomfort in our relationship but one occurred when I showed him a project that Stuart Youngner and I did for a Summer Bioethics Camp entitled, "The Man on the Street Project". We walked the streets of Cleveland videotaping individuals (with appropriate informed consent) who we met whether they had heard of bioethics and whether they felt that it had any impact on people's lives. With the exception of a graduate student in genetics that we happened to run into outside the Cleveland Stadium, people had not heard of bioethics. Van interpreted this as a criticism of the public but rather we were criticizing bioethicists for not taking their public face seriously. The

final videotape shown for fun featured famous bioethicists with false face masks making fun of themselves and the field. Where is the clown in bioethics?

I believe that the influence of bioethics is growing. Thus, it is so essential that we help educate the public about the broad issues dealing with values and health. We must build our commitment to future generations rather than focusing on narrow current medical technologically expensive programs like cloning.

One of the projects that I had the opportunity to talk to Van about and that he was particularly excited about was the public learning-community that Cathy, my wife, and I created with colleagues. The Intergenerational School is the first ever, explicitly broadly multi-age public school formed as a community (charter) school in Ohio (Whitehouse et al. 2000). Led by my wife Cathy, this school for K-4 and other learners throughout the lifespan provides experiential learning in community that allows students to become more effective and spirited citizens. Our youngsters share with high school students, undergraduates, graduates, professors and “retirees” a school committed to life long learning. At the foundation of The Intergenerational School is a commitment to environmental stewardship. Also, the heart of the school is the belief that the process of creating collective wisdom through learning is itself a spiritual phenomenon at least to its current chairman of the board (the author). Learning about nature creates spirit in two ways: learning about anything is a spiritual experience and learning about nature is the most sacred. This view of learning is consistent with an evolutionary biological perspective where survival depends on people sharing information about their social and physical environment. Our school tries to live deep and global bioethics. As we build our relationships with other educational

institutions, such as Case Western Reserve University, it remains to be seen whether such a foundational love of learning (and life) can find applicability in large, category bound but evolving learning organizations, such as universities.

Why Rebirth Bioethics?

The main reason for writing this paper is to honor Van Rensselaer Potter. He was an intellectually challenging and morally exemplary human being. His personal model for us to live an authentic life philosophy is even more essential today. His ideas do represent a bridge to the future. In remembering Van and acknowledging his values and ideas, it is also important to remember him at this particular time in the history of bioethics. I hope that rebirthing the original conceptions of bioethics will prevent the dementia of the field, which is characterized by a selective amnesia of the past and inattention to certain critical issues for the survival of life on the planet. Moreover, there is a concern that underlying this dementia is a dysexecutive disconnection syndrome, which relates to distorted goals and values (Whitehouse 1999). Bioethicists too often mirror the values of our health care system rather than challenge them.

In summary, this paper will change the world. Every word, idea, action, particularly if communicated to others, creates some change in our shared semantic space or noosphere. Bioethics is a key word in our lexicon. As Van and others have expressed, the term bridges science and humanities through its clinical practice, legal, and philosophical aspects. Bioethics as a profession needs to shift its gaze from principals such as autonomy and professional recognition to relationships in community, intuition, and public and environmental health. This

is more than rethinking priorities. In fact, this is not a cognitive task at all. This job is for the human spirit. So my colleagues, I care what you think and more what you feel but, most importantly, what you do to ensure a world for generations to come and for all life on the planet.

After I wrote this last sentence I found this poem Van wrote to me on April 23, 1997.

Many days are yet to be
Many days but not for me
Many things I've yet to do
If not me, then done by whom?

Many days are yet to be
Many days remain for thee
So choose with care what you will do
And I 'll be here to keep it true.

Van Rensselaer Potter, April 23, 1997

Hi Van, this one's for you,

Peter

I would like to acknowledge Catherine Whitehouse, Eric Juengst, Bill Atchley, Gerry Fowler, Gene Anderson, Lisa Potter, Heather Lindstrom and Julia Rajcan in assisting with the research

for and the writing of this article. A number of other colleagues of Van's too numerous to mention (read the article).

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Table 1 - [Appendix 2 – A Bioethical Creed For Individuals]

<p>1. Belief: I accept the need for prompt remedial action in a world beset with environmental and religious crises.</p>	<p>Commitment: I will work with others to improve the formulation of my beliefs, to evolve additional credos, and to seek a worldwide movement that will make possible the survival and improved development of the human species in harmony with the natural environment and with fellow humans.</p>
<p>2. Belief: I accept the fact that the future survival and development of humankind, both culturally and biologically, is strongly conditioned by present activities and plans that affect the biotic environment.</p>	<p>Commitment: I will try to adopt a life-style and to influence the life-style of others so as to promote the evolution of a better world for future generations of the human species, and I will try to avoid actions that would jeopardize their future by ignoring the role of the natural environment in food and fiber production.</p>
<p>3. Belief: I accept the uniqueness of each individual and his or her instinctive need to contribute to the betterment of some larger unit of society in a way that is compatible with the long-range needs of society.</p>	<p>Commitment: I will try to listen to the reasoned viewpoint of others whether from a minority or a majority, and I will recognize the role of emotional commitment in producing effective action.</p>
<p>4. Belief: I accept the inevitability of some human suffering that must result from the natural disorder in biological creatures and in the physical world, but I do not passively accept the suffering that results from inhumane treatment of individual persons or groups.</p>	<p>Commitment: I will try to face my own problems with dignity and courage, I will try to assist others when they are afflicted, and I will work toward the goal of eliminating needless suffering among humankind as whole.</p>
<p>5. Belief: I accept the finality of death as a necessary part of life. I affirm my veneration for life, my belief in the need for brotherhood now, and my belief that I have an obligation to future generations of the human species.</p>	<p>Commitment: I will try to live in a way that will benefit the lives of my fellow humans now and in time to come and that will be remembered favorably by those who survive me.</p>
<p>6. Belief: I believe that society will collapse if the ecosystem becomes irreparably damaged and unless human fertility is brought under worldwide control, given the concomitant increase in the competence of its members for understanding and maintaining human health.</p>	<p>Commitment: I will try to master a skill or a professional talent that will contribute to the survival and improvement of society and to the maintenance of a healthy ecosystem. I will try to assist others in the development of their potential talents while at the same time maintaining my sense of self-caring, self-esteem, and individual worth.</p>
<p>7. Belief: I believe that each adult person has a personal responsibility for his or her own health as well as a responsibility for the development of this aspect of personhood in any offspring that may be produced.</p>	<p>Commitment: I will endeavor to carry out the eight obligations described as a Bioethical Commitment for Persona and Family Health. I will limit my own reproductive powers in accordance with national and international goals.</p>

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¹ It may have come to the reader's attention, as it did to the author, that in Belief #5, V.R. Potter used the gendered term of "brotherhood." In keeping with his firmly held conviction that all life, human, and other, has inherent value, a more inclusive term, such as "alliance," might be better suited to his intended message.