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The Ethical Responsibilities of Professionals

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The Good Work Project
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Since 1995, three teams of investigators, under the direction of Howard Gardner, of Harvard University, Mihaly Csikszentmihalyi of Claremont Graduate University, and William Damon of Stanford University, have been researching the ways in which leading professionals in a variety of domains carry out good work. "Good work" is used in a dual sense: 1) work that is deemed to be of high quality and 2) work that is socially responsible. Through intensive, face-to-face interviews, the researchers have investigated several domains, including journalism, genetics, business, jazz music, theater, philanthropy, and higher education. Pilot studies have been conducted of medicine and the rapidly emerging domain of "cyberlaw", with plans to explore these areas more fully in the future.

In addition to this central line of study, several other related lines of investigation have been launched:

1. The Origins of Good Work project is an examination of teenagers who excel in extracurricular activities.

2. The Dedicated Young Professionals Study focuses on those who have just begun (or will soon begin) promising professional careers.

3. Good Work in Interdisciplinary Contexts. Pilot studies of new arts/science media and of the Massachusetts Institute of Technology's Media Lab have been completed. Plans are underway to study interdisciplinary work at the pre-collegiate, college, and research institution level.

4. The Role of Contemplative Practices investigates the ways in which contemplation/meditation influence how professionals carry out work.

5. Encouraging Good Work in Journalism. This project, carried out in conjunction with the Committee of Concerned Journalists, is currently developing a "traveling curriculum" for use in newsrooms around the country.

6. Good Work as Transmitted through Lineages examines how the principle of doing good work is passed down through continuous generations of teachers to students or from mentors to less experienced professionals.

7. Good Work in Other Societies is a project spearheaded by colleagues at Denmark's Royal Danish School of Education that investigates good work in Denmark and Latvia. In the future, additional international components will be added.

The Project expects to issue a variety of books, reports, and related documentation. The present series, launched in early 2001, includes reports on several of the lines of research mentioned above. For further information on the Good Work Project, contact Professor Howard Gardner's office at 617-496-4929, via email at hgasst@harvard.edu, or through regular mail at 201 Larsen Hall, Harvard Graduate School of Education, Cambridge, MA, 02138.

Papers On Good Work
February 2001

1. The Project on Good Work: A Description (April, 2000), Howard Gardner, Mihaly Csikzentmihalyi, and William Damon.

2. The Ethical Responsibilities of Professionals (July, 1998), Howard Gardner

3. The Empirical Basis of Good Work: Methodological Considerations (June, 1997), Howard Gardner, Anne Gregory, Mihalyi Csikzentmihalyi, William Damon, and Mimi Michaelson.

4. Good Work in Business (August, 2000), Kim Barberich and Howard Gardner.

5. Good Work Among Dedicated Young Professionals (July, 2000), Becca Solomon, Greg Feldman, and Marcy LeLacheur.

6. Contemplation and Implications for Good Work in Teaching (August, 1998), Laurinda Morway, Jeff Solomon, Mimi Michaelson, and Howard Gardner.

7. Good Work in a Complex World: A Cross Cultural Comparison (November, 1998), Hans Henrik Knoop and Howard Gardner.

8. Opportunities and Obstacles for Good Work in Medicine (August, 2000), Jeff Solomon, Jennifer DiBara, Sara Simeone, and Dan Dillon.

9. New Media Art: A New Frontier or Continued Tradition? (January, 2001), Kaley Middlebrooks.

10. The Origins of Good Work (April, 2000), Wendy Fischman and Grace Lam.

11. Good Work among Albert Schweitzer Fellows (April, 1999), Wendy Fischman, Becca Solomon, and Deborah Shutte.

12. High Abilities and Excellence: A Cultural Perspective (2000), Jin Li

13. Interdisciplinary Research and Education: Preliminary Perspectives from the MIT Media Laboratory (January, 2001), Dan Dillon.

14. Good Work in Cyberlaw (August, 2000), Evan Zullow.

15. Getting Kids, Parents, and Coaches on the Same Page (2000), Becca Solomon and Howard Gardner.

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I. Introduction

In the middle of the 19th century, a serious proposal was made to close the US Patent office because all inventions of significance had been made. In light of the subsequent appearance of the telegraph, telephone, radio, television, airplanes, and computers, we now laugh at the naiveté of this proposal. A few years ago, an American journalist named John Horgan wrote a serious book entitled *The End of Science* (1996). In this book, he speculated that the important questions about the nature of matter and life had been answered, and that most other questions about nature and mind were not susceptible to scientific answer. A century from now, the suggestion that science was effectively at an end in the 1990s is likely to seem equally ill-informed.

To be sure, we cannot predict particular advances in science and technology. At the end of the 19th century, who could have anticipated the theory of relativity, or plate tectonics, or quantum mechanics? Turning from the physical to the biological world, who could have foreseen the revolution in molecular biology, the nature of genes and chromosomes, the structure of DNA, let alone the fact that scientists can now clone entire organisms and will soon have within their grasp the power to transform the human genetic sequence and control heredity? And now that progress is being made in the neural and cognitive sciences, it seems highly likely that investigators will continue to unravel the mysteries of thinking, problem-solving, attention, memory, and—the most elusive prize of all—the nature of consciousness. The result of this work is likely to be of singular importance for all of us who are engaged in teaching and learning across the life span.

It is hard to deny the excitement of these enterprises. So many issues and questions that were once the lot of poets and armchair philosophers have already

been answered by scientists or at least hover within their grasp. Mysteries have now become problems, and problems are susceptible to solution. And yet, it is dangerous to adopt a pollyannaish view. Science marches on. There is no guarantee that such a sequence from mystery to soluble problem will naturally contribute to the good of the public or that it will prove to be a benevolent force in the future.

II. Can Scholarship be Morally Neutral?

Science—indeed, scholarship more generally—is morally neutral. It represents the best efforts of human beings to provide reliable answers to questions that fascinate us: Who are we? What is the world made of? What will happen to it? When? (Should I put the date on my calendar?) What kind of creature would ask such questions?

But what happens when these questions are answered? Sometimes, the answers simply satisfy human curiosity—an important and valid goal. But at other times they lead to concrete actions—some inspiring, some dreadful. Einstein's seemingly innocuous equation $E=MC^2$ stimulated many outcomes. These ranged from powering cities with nuclear energy, to the detonation of nuclear devices at the cost of thousands of lives in Hiroshima and Nagasaki, to the spreading of fallout following the Chernobyl disaster. Following the discoveries of antibiotic agents, we behold the production of wonderful drugs that can combat dread diseases as well as the emergence of new toxic organisms that prove resistant to the effects of antibiotic medication.

Again, scholarship itself cannot decide which applications to pursue, which not. These decisions are made by human beings, acting in whichever formal and informal capacities are available to them. Einstein is a good case in point. It is doubtful that he thought about the applications of atomic theory when he was

developing his ideas about the fundamental properties of the physical world. By the time that the politically-attuned physicist Leo Szilard approached him in the late 1930s, it was already apparent that nuclear energy could be harnessed to produce very powerful weapons. Einstein agreed to sign a letter to President Franklin Roosevelt, and that action, in turn, led to the launching of the Manhattan Project and the building of the first atomic weapons. After the end of the Second World War and following the detonation of nuclear devices over Japan, Einstein became a leader in the movement toward peace and eventual disarmament.

Such choices and dilemmas are not solely the province of those in the so-called hard sciences. For most of the 20th century, psychologists have been involved in efforts to measure individual differences in human intelligence. Most psychologists feel comfortable using the intelligence test—an instrument developed at the turn of the 19th century to help predict success or failure in school. Among the issues faced by researchers is whether to investigate group differences in intelligence—for example, between men and women or among races.

Some scholars have stayed away from these issues for one or another reason. Others have focused on them. Recently, Richard Herrnstein and Charles Murray devoted a portion of their book, *The Bell Curve* (1994), to a discussion of the long-standing and widely-reported difference of 15 points (one standard deviation) between scores of Americans of Caucasian and scores of African-American descent on intelligence tests. Herrnstein and Murray believe that it will be difficult to eliminate that difference and that it probably does not make sense to try. Others believe that intelligence in general can be raised and that these group differences can be narrowed or perhaps eliminated (Neisser 1998). Even a person who believes that it is difficult to raise intelligence still faces a choice:

either elect not to devote resources to such an effort, or elect to direct sizeable resources to it. None of these decisions can be dictated by science; they all involve judgments of value.

III. Restraining the Misapplication of Scholarship

In the past, scientists argued that their job was to add to permanent human knowledge and understanding, and not to make decisions about policy and action. But what factors, then, have prevented the random use, misuse, or frank abuse of technology—the so-called fruits of scientific progress?

We can identify three factors that have traditionally served as a restraint on the misapplications of science. First of all, there have been the values of the community, in particular religious values. For example, in principle a scientist could conduct experiments in which prisoners are exposed to certain toxic agents. But religion counsels the sanctity of all human life. A second balancing force has been the law. In many nations, prisoners are protected against unusual forms of treatment or punishment. Third, there is the sense of calling, or ethical standards, of professionals. For example, a scientist might take the position that a contribution to knowledge should not be secured at the expense of human or animal welfare; indeed, some scientists have refused to make use of findings obtained by the Nazis as a result of immoral experiments. Or the warden of a prison might refuse to allow his prisoners to participate in studies using inhumane treatments, even in the face of social or financial pressures to do so.

Each of these restraining factors remains operative but, alas, each seems reduced in force nowadays. At a time of rapid change, values are fragile and religious creeds may seem anachronistic. Laws remain, unless they are overturned, but often events move so quickly that the law cannot keep up. And during an era when the market model has triumphed in nearly every corner of

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society, it is often quite difficult for individual professionals to uphold the standards of their calling. A decade ago, physicians in France colluded in the sale of blood that they knew to be tainted by HIV virus. It is probable that their sense of calling was not potent enough to combat financial and societal demands for the blood.

Market pressures are becoming all too familiar to educators, too. More and more, education is justified in terms of its economic leverage. Powerful politicians and policymakers call for vouchers, charters, and other market mechanisms as a means of permitting families to select schools. The arts are justified for their potential contributions to learning in skills useful in business rather than for their inherent worth. Colleges compete with one another through advertising, scholarships, and high salaries for star faculty. It is difficult to discern voices that invoke forces other than the bottom line. Nowadays, few educators underscore the intrinsic value of education or point up the need for noncommercial communal values.

IV. Ethical Responsibilities of Professionals

We encounter an impasse. On the one hand, science and innovation proceed apace, ever conquering new frontiers. On the other hand, traditional restraints against wanton experimentation or abuse appear to be tenuous. Must we leave events to chance, or are there ways to pursue science and education—and, more broadly, professional life—in a responsible way?

Enter the ethical responsibilities of a professional. I contend that a new covenant must be formed between professionals and the society in which they live. Society makes it possible for scientific professionals to proceed with their work—by the funding of science as well as by cooperation in its execution. In return, I submit, scientists must take on an additional task: they must relinquish

the once-justifiable claim that they have no responsibility for applications, and undertake a good faith effort to make sure that the fruits of science are applied wisely, not foolishly. So it must be for all professionals, including those in education.

Let me introduce an example from my own work as a cognitive psychologist. Fifteen years ago, I developed a new theory of intelligence, called the theory of multiple intelligences (Gardner 1993a, 1993b 1999). While I thought that this theory would be of interest primarily to other psychologists, I soon discovered that it was of considerable interest to educators as well. Educators began to make all kinds of applications of the theory. I was intrigued and flattered by this interest. Yet, like most scientists, I felt little personal involvement in these applications. Indeed, if asked, I would have responded, "I developed the ideas and I hope that they are correct. But I have no responsibility for how they are applied—these are 'memes' that have been released into the world and they must follow their own fate." (Cf. Dawkins 1976.)

About ten years after my book *Frames of Mind* was published, I received a message from a colleague in Australia. He said, in effect, "Your 'Multiple Intelligence' ideas are being used in Australia and you won't like the way that they are being used." I asked him to send me the materials and he did so. My colleague was absolutely correct. The more that I read those materials, the less I liked them. The so-called smoking gun was a sheet of paper on which each of the ethnic and racial groups in Australia was listed, together with an explicit list of the intelligences in which a particular group was putatively strong and the intelligences in which members of that group were putatively weak.

This stereotyping represented a complete perversion of my personal beliefs. If I did not speak up, who would? Who should? And so, I went on television in Australia and criticized that particular educational endeavor as "pseudo-science."

That critique, along with others, sufficed to result in the cancellation of the project.

I do not hold myself up as a moral exemplar. It was not a job-threatening choice to appear on a television show in a far-away country, and I was not doing work in biotechnology or rocket science—work that can literally save or destroy lives. Yet, the move that I made in my own thinking was crucial. Rather than seeing applications as the business of someone else, I had come to realize that I had a special responsibility to make sure that my ideas were used as constructively as possible. And indeed, ever since that time I have devoted some of my energies to supporting work on multiple intelligences of which I approve, and critiquing or distancing myself from work whose uses are illegitimate or difficult to justify (Gardner 1995).

What can be done to forge a new covenant between professionals and the larger society? To my mind, the current impasse calls for greater efforts by each party to make clear its needs and its expectations. Professionals must continually be willing to educate the public about the nature of their enterprises and about what is needed for good work to be done within their domains. Professionals have a right to resist foolish misunderstandings of their own enterprises and to fight for the uncensored pursuit of knowledge. At the same time, they must be willing to listen carefully to reservations about their work from nonprofessionals, to anticipate possible misapplications of the work, and to speak out forcefully about where they stand with respect to such reservations, uses, and misapplications.

Ordinarily, neither professionals nor the general public should block the road of inquiry. Assuming that they do not harm others, individuals must have the right to follow their questions and curiosity wherever they lead. Occasionally, however, professionals may want to consider not exploring certain questions,

even though they may be personally curious about the outcomes. In the case of my own field, I myself do not condone investigations of racial differences in intelligence, because I think that the results of these studies are likely to be incendiary. Many biological scientists are extremely reluctant to engage in experiments of genetic engineering or cloning with human beings, not because of lack of curiosity about the results, but rather because some of the implications of this work could be very troubling. It is not difficult to envision serious psychological or medical problems in the light of these experiments; it is even possible to imagine how genetic experiments gone awry might threaten the viability of the species.

V. Steps Toward Responsible Action

If they believe that my claim has merit—if they believe that professionals generally should become more deeply involved in ethical considerations—how might individuals act upon that belief? This is the question I have been pondering with my close colleagues Mihaly Csikszentmihalyi of the University of Chicago, William Damon of Stanford University, and several other researchers in our laboratories. We are trying to understand how leading practitioners— individuals doing cutting edge work—deal with the various invitations and pressures in their domains. We have been observing and interviewing scientists and professionals in other rapidly-changing domains, such as journalism, business, and the arts. We want to know how their present work situations appear to such individuals "in the trenches," and we want to identify individuals and institutions that have succeeded in melding innovative work with a sense of responsibility for the implications and applications of that work.

It is too early to report the results of our work, and so far, my colleagues and I have not investigated the area in which we ourselves work—the domain of

education. Because each domain has its own configuration and idiosyncrasies, we cannot even expect that results will generalize neatly from one domain to another. But I can mention how we currently conceptualize the issues and a few tentative findings that anticipate some of the ways these issues arise—and might be negotiated—in education, the domain most familiar to readers of these words.

To begin with, professionals are not naïve about their situation. They are aware of the great pressures on them and the hegemony of the market model at the end of the 20th century. They want to be ethical persons in their professional and private lives. They recognize the pressures that make it difficult for them always to do the right thing and to avoid crossing tempting lines.

Yet clear differences can be observed in how successful these innovative individuals are in maintaining an ethical sense. Not surprisingly, early training and values are important, and that includes a religious affiliation in many cases. The opportunity to work in the laboratory of an ethical scientist, to spend time in a truly distinguished institution, or to be surrounded by colleagues with impressive values, are equally important formative factors.

Once they have begun their careers in earnest, creative individuals are aided by two factors. The first is a strong sense of internal principles—lines that they will not cross, no matter what. If a scientist says—and believes—that he will never put his name on a paper unless he has reviewed all of the data himself, that virtually eliminates the likelihood that he will be an accessory to the reporting of fraudulent data. The second factor is a realization that the profession does not have to be accepted the way that it is today: as a human agent, a person can work toward changing that domain. Suppose, for example, that it has become routine practice, in the writing of grants, for the head of a laboratory to propose work that has in fact already been carried out but has not yet been published. A scientist could decide henceforth not to do so and work

with colleagues to change the procedures in the domain. Indeed, the installation of a process through which senior scholars apply for support by describing work that has recently been completed, rather than work that might be carried out in the future, would represent a significant alteration in the customary practices of a domain.

Similar examples can be gleaned with reference to the applications of creative work. A researcher could decide, for example, that all of her work is in the public domain and thus refuse to patent any findings. Here an internal principle wins out over the desire for personal profit. Or she could insist that science take the public interest into account. One way to do that would be for every laboratory voluntarily to set up an advisory committee, consisting of knowledgeable individuals from other domains and laboratories. This advisory group would inform itself about the work of the lab, critique it when appropriate, and make suggestions about benevolent and possibly malevolent uses of findings.

VI. The Responsible Educator

Now, plunging directly into the matter of education, let me attempt to apply the present analysis to a teaching professional who wants to devote her energies to the inculcation of disciplinary understanding in her students.

Let us suppose that you are a teacher of American history in the tenth grade. You take your calling very seriously. You have decided that you want to bring about deep understanding of historical thinking in your students. And you believe the best way to do this is to study a few topics in considerable depth— say the American Revolution, the Civil War, and immigration at the beginning of

the 20th century. Your students will work with original documents, ponder essential questions, and be expected to argue about current events (e.g., recent immigration to California, the Civil War in the former Yugoslavia) on the basis of their newly acquired historical understandings. You want them to understand the difficulty and the power of the venerated discipline of history.

Enter the state frameworks. Working together, politicians and educational policymakers in your state have developed a curriculum and a required set of tests for all tenth graders. The curriculum features a text that is rich in facts and figures but unsettlingly thin in ideas. The tests match the curriculum. There is no room for thoughtful analysis, for raising new questions, for applying historical insights to the current situation, for acknowledging the fragility of the historical record. Instead, the high performer is the student who—shades of television quiz shows—knows the names and dates of hundreds of politicians, military leaders, treaties, laws, and disputes.

What should you do as a professional, imbued with a strong sense of calling? Should you succumb to these new frameworks, actively fight them, conduct some kind of a guerrilla activity, or begin to scan the want-ad section (or website) of your local newspaper?

Circumstances and personalities differ, and no solution to this conundrum will work for every professional. Our study has yielded two ways of thinking about these issues that may be appropriate.

One approach could be to think about which stance you wish to assume toward the domain in which you work—in this case the teaching of American history. Recalling the reasons for your original choice of career, you could elect to pursue the domain as you initially learned it. Alternatively, recognizing the pressures of the moment, you could accept the definition of the domain imposed by others—in this case, those who write the laws and regulations and pay the

salaries. A third stance could be to attempt to modify the domain—for example, organizing teachers and parents to develop an alternative view of the tenth grade curriculum, complete with its own set of standards or assessments. Yet another stance could be to try to recreate the domain in a new setting—for example, by deciding to work for, or create, a textbook company, a website, a cable television program, a new kind of testing, or an after-school program in which you teach history and current events in a quite different way.

A second way to approach this issue is to think about your responsibilities. In our view, every individual has a set of at least five responsibilities among which he or she must continually negotiate. One responsibility is to yourself— your own goals, values, and needs, both selfish and selfless. A second responsibility is to those about you—your family, friends, daily colleagues. A third responsibility is to your calling—the principles that regulate your profession—in this case, what it means to teach a discipline to students. A fourth responsibility is to the institution to which you belong: the particular school, or perhaps the school system or network of schools (like the Coalition of Essential Schools) of which you are a member. A final responsibility is to the wider world—to individuals you do not know, to the safety and sanctity of the planet, and to those who will inherit the world in the future. As Henry Adams powerfully phrased it, "A teacher affects eternity: he can never tell where his influence stops." We suggest that the thoughtful professional is always wrestling with these competing responsibilities and, insofar as possible, trying to meet each reasonably well.

Whether sage or scientist, lawyer or layperson, parent or teacher, all of us must negotiate our way among these strong and sometimes competing responsibilities. We are helped by religion, ethics, friends, and colleagues, but in the end we must do the balancing ourselves. Personal responsibility cannot be

delegated to someone else. Those who have the special privilege of educating the young have an obligation to be reflective about their stance toward teaching and their negotiation of these competing responsibilities. At a time when there is so much to learn, so many new media to master, and such pressing needs in the world, these responsibilities can seem awesome. Greater mindfulness about our responsibilities has become a necessity if we are to pass on to our progeny a world that is worth inhabiting.

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