WITH SCIENCE AND TECHNOLOGY

(ITEST)

NEWSLETTER

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For Your Calendar:

The March 13-15, 1981 Workshop will be devoted to the technological and industrial use of recombinant DNA, especially in view of the Supreme Court's recent allowance of the patenting of recombined bacteria. We shall bring together for this Workshop: (a) a scientist to explain recombinant DNA techniques, (b) a lawyer involved in the recent patent suit before the U.S. Supreme Court, (c) a media consultant to discuss the popularization of such issues, and (d) a political scientist/ethician to speak to the political and ethical of such patenting. As usual at these Workshops, there will be no formal presentation of papers. Rather, copies of the papers will be sent beforehand to each of those attending. Details of this Workshop will be sent out shortly along with invitations to attend this Workshop.

The October 9-11, 1981 Conference will discuss the topic of !'Warfare in the 1990's". We are assembling a panel of 4 speakers to consider the following questions: the role of science in military planning; the technological state of warfare in the 90's; the theological question "whether, in the age of atomic, biological, chemical, light and particle-beam warfare, a nation may legitimately defend itself and, if so, how?"

ITEST Notes:

So far the 1981 membership renewal drive has been going well. Our membership reached 463 in 1980. We hope to improve that significantly during 1981. The strength of ITEST resides solely in its members, i.e., in each of you. The members are, and must be, apostles to the churches and to the scientific communities, to the other disciplines, and to the professions. We ask you to spread the news of ITEST and its work to those of your colleagues and friends who are engaged in either or both of the poles represented in our corporate title. We intend that our growth take place only through "word of mouth" recommendation. We do not intend to advertize in any other way. So we rely solely on your help to expand our membership and our influence. Too many of us find ourselves isolated in our deep concerns about the scientific enterprise and its effects on our individual and social lives and on the life of the church. We need communal support and communal opportunity for sharing concerns and approaches to solution. The community that is ITEST needs what only its members can provide and in return we would like to provide a center (a home, really) in which and about which concerned and dedicated people can gather. We need your help in extending this very important work.

Response:

In the October, 1980 issue of the ITEST Newsletter (Volume 11, Number 4) we published an article by Vance L. Eckstrom, entitled "Science and Technology in the Religious Studies Classroom."

We received a letter from a long-time member of ITEST, Dr. Robert J. Doyle, Professor of Biology, The University of Windsor, Canada. In that letter Dr. Doyle says: "He (Professor Eckstrom) states 'Today many individual scientists, and such organizations as the Institute for Creation Research in San Diego, search out and argue the evidence against evolution from one species to another with a carefully scientific approach the results of which deserve a fair hearing. To expose my students to this point of view, I have them read "Creator, Evolution and Public Education" by Duane T. Gish.' (Dr. Doyle continues)

I would like to make three points.

(a) Few (not 'many') individual scientists and hardly any biologists oppose the biological Law -- note, I have not used the word "theory" -- of evolution.

(b) The approach used by the Institute for Creation Research is not a "careful scientific one" (i.e., an effort to disprove hypotheses by seeking out or setting up experimental consequences of

these hypotheses) but rather a mixture of logic-chopping and propaganda techniques.

(c) Gish's book argues that the creational (or literal Biblical) view of the origin of life is, in fact, a scientific one and should, therefore, have equal status with the evolutionary explanation in textbooks and other publications. Many biological organizations have gone on record as denying this emphatically. Their position is not that God did not create life, but, rather, that His activities are not testable and, so, not amenable to scientific analysis."

Dr. Doyle also enclosed a short article, "Evolution misunderstood, yet provable," that was printed in the May 10th, 1980 issue of The Toronto Star. It is reproduced here:

More than a hundred years after its publication, evolution is still one of the most misunderstood ideas in science.

A new element has been added to the controversy; the origin of living things by singular act of creation has been advanced as a scientific alternative to evolution. Few scientists agree.

Darwin proposed that living things evolved or developed from single (sic) to more complex types over long periods of time because of a continuous process of selection (rather as we might select the best tomato from a truckload by successively chosing the largest ones, then from among these the ones with the best color, followed by the juciest, and so on).

Darwin discussed but did not explain the wide range of properties (such as color, size and succulence) in living creatures. About the same time, but unknown to Darwin, Gregor Mendel showed that this variation was caused by various combinations of genes.

As evidence accumulated, Darwin's original idea was modified (as are all scientific ideas). Selection, for example, is no longer conceived to be fierce and remorseless predation of one organism by another. It has turned out, instead, that evolutionary processes are often subtle interactions involving cooperation, altruism, and the like.

Now let's take a look at the most frequent misunderstandings: "Evolution is only a theory!" On the contrary, evolution has been so extensively supported by evidence that it should long ago

have been raised to the status of "law". E. O. Wilson, the Harvard entomologist and sociobiologist, says that Darwinism in its modern form "must be regarded as one of the most firmly grounded and reliable explanatory systems in all of science." It is more thoroughly established in biology than the concept of the atom in chemistry or of zero in mathematics!

"Many biologists do not support evolution." In actual fact, few scientists oppose evolution's basic tenets. Occasionally, a prominent scientist is quoted as opposed to Darwin but on examination his disagreement is usually over some minor point.

"There is no experimental proof for evolution." In fact, evidence abounds from natural history, plant-breeding and entomology.

Modern genetics, for example, includes numerous concepts and clusters of facts explicable only by evolution. Studies of differences in genetic structure show precise parallels with proposed schemes of evolutionary descent. In some cases, such as the wheats, the evolution of the various types has been duplicated in the lab.

One of the best sources of evidence is in the science of microbiology. Since it is possible to obtain hundreds of generations of microbes in a few days, evolution can be observed in great detail.

Dramatic evidence comes from animal breeding. For example, from the basic wolf stock man has evolved a wide range of dogs -- from chihuahuas to Irish Wolfhounds -- which would be chassified as quite distinct species if their ancestor was not known to us.

Scientists take the position that God is above or outside of nature and cannot be the object of an experiment; He cannot be postulated to cause natural phenomena because He cannot be "tested" for.

Thus God is not a "scientific" explanation for the origins of life, either by evolutionary processes or by "special creation." The scientist, then contrasts the two positions — that of "evolutionist" and "creationist" — as follows: Evolutionists hold that living creatures were successively produced, becoming steadily more complex over long periods of time and by many selective processes. Creationists argue that all living creatures — or most of them — were produced simultaneously and so have existed from the beginning of life. In the literature of science, there has never been presented any evidence which supports this last statement. Simultaneous production of all living things is ruled out and, therefore, successive (i.e., evolutionary) production is acceptable.

There is no scientific support for creationism. The arguments usually used to support it stem from misunderstandings or come from outside of science, from philosophy, theology, scripture, etc. And so scientists argue that "special creation" should not be regarded as a scientific theory!

Like Galileo, Einstein and so many others, Darwin has been misunderstood far too long. It's time his powerful ideas were allowed their proper place in our thinking and our lives.

The Ephemeral Professional

by:

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Trust your auto — which means your life — to Mr. Goodwrench, he is a professional. Trust your house — which means your net worth — to your "Neighborhood Professional," a properly coated and credentialed real estate salesman. Madison Avenue has noticed. Being a professional is in. To say, "He's a pro," is the ultimate compliment. But how can you tell if he is a pro? Does saying so make it so?

1

In <u>Professional Ethics and Insignia</u> (Scarecrow Press, 1974), Jane Clapp lists 173 types of professionals, from accountants to zoologists, including twenty kinds of engineers. She follows the convention of identifying professions by organized associations with membership requirements and some sort of published statement about ethics. The results, however, suggest the limitations of this convention. Laborers are in, the AFL-CIO is their home. Clergy are not in; nor are professional athletes. Some clerics may not want to be thought of as professionals, though once they were quintessential professionals, so that may be appropriate. But surely something is amiss if professional athletes are not included. As Howard Cossell would perspicaciously enunciate, the paragons of play for pay embody the essence of professionalism. So, belonging to a "professional association" which makes noises about requirements and prohibitions will not tell you if a person is a professional. What will?

Well, how about being paid for what you do? Surely, that's it? "Real" pros have got it, and how. Muhummed Ali has taught us that. And ever since Jim Thorp we have known that taking a penny beyond empenses stamps an athlete forever, "professional." Everyone knows what you mean if you say, "Jackson Spitspot is the world's leading expert on antique brass wash bowls, but by profession he is a trash collector." So, I suppose it would follow that, though Spinoza was one of the world's greatest philosophers, by profession he was a lensgrinder.

Certainly there is wide currency to the notion that those who get paid for what they do are professionals. That makes identifying those who are professionals nice and simple. Tell me if a person gets paid for what he does and I will know that he is a professional. Every paying occupation is a profession, from professional welfare recipients to professional coupon clippers. Surely there is enough dignity here to go around.

But hold, what are we to do with the rich lady who assiduously supports worthy causes. Isn't she a "professional philanthropist"? But she does not get paid for giving — at least not in coin of the realm. And what about a Buddhist monk, does his vow of poverty perpetually exclude him from being a professional? For that matter, is Pope John Paul II not a professional? His living is provided for him, but he does not make his living as the Pope.

A strange situation: it is proper to call a person a "professional thief," but not a "professional philanthropist"? There are lots of "professional athletes," but no "professional monks"? No, that just won't do. In our day and age we may tend to identify professionalism with getting paid, but you don't have to get paid to be a professional. You can't tell a professional simply by the fact, or size, of his paycheck.

11

Well, whether or not a person gets paid for it, isn't a professional one who is able to work wonders through specialized skill and knowledge which it takes years to acquire? After all, the clergyman can get you to heaven, the physician can keep you on earth, the lawyer can assure your righteous standing in society, and the soldier can protect you from your enemies. It does not matter whether or not you pay them for it, what matters is that they know how, and perform. That is why they are professionals. Likewise, Muhummed Ali can beat the stuffing out of Leon Spinks; Dr. J. can make impossible basketball shots, and Houdini could get out of locked chains. All, professionals, with the special skills, developed over years, to perform wonders.

Can we get all the candidates for professional status under this tent? The carpenter hits the nail on the head, the trash collector makes the garbage disappear, and the janitor whisks the dust away. All, obviously, professionals. They can add themselves to the expanding collection of professional engineers — as construction engineers, sanitation engineers and maintenance engineers. The more we specialize skills, and train people into them, the more people become professionals. Of course, the handyman, general factotum, jack of all trades and gentleman farmer get left out. They, clearly, are not professionals. But professional politicians? Oh, yes! Skillful wonder workers all.

Do we have it now? Professions are "in" because the modern ideal is to have each person perform one special skill, as in Plato's Republic. The performance of that skill is a wonder to all those who lack it. Mr. Goodwrench changes "capokity, kapokity" to "put, put," and we leave the driving to the Greyhound man. The more we specialize, the more we professionalize. The post-industrial society is, thereby, on its way to becoming the professional society.

But hold, once again how about the monk or professional holy man? Buddhist or Christian, his profession is not so much a matter of knowledge and skills as poverty and chastity. He may end up working wonders, but then he is a saint, and that is not a profession but a gift of God. And how about the oldest profession, prostitution? Is that rooted in skill or licentiousness, and does it work wonders or end wondering? A prostitute may develop considerable skill, but we can tell if she is a professional prostitute without checking on her skills. Likewise a friar may be a professional beggar without being skillful at it, poor fellow.

Perhaps monks, holy men and prostitutes are passe as professionals — merely honorary pros, left from benighted times. Still, one can have a wonder working skill which takes years to acquire and not be a professional. Most Americans can write, surely a wonder working skill among the illiterate. We spend years in school developing and perfecting this skill. Yet, few of us are professional writers. We lack the talent, or the time, or both. A few people spend years learning how to wiggle their ears, but they do not thereby become professional ear-wigglers, no matter how much wonderment their performance may provoke.

No, though special wonder working skillsaare widely associated with professionals, you can't tell a professional simply by noting that he has such a skill, any more than one has to be paid to be a professional. Well, perhaps we can still save part of this claim. Skip skills and knowledge, concentrate on wonder working, but change it slightly. How about, "a professional is one who performs a social service?" Isn't that true of the traditional professions—divinity, law, medicine—and even prostitution? Well, unfortunately, no. It happens that society may be able to use the contributions of these professions, but these professions are not defined by their service to society. The divine serves God, not man. The lawyer serves the law, not the law bound community. The physician serves his patient, even though he may be Hitler. The prostitute serves pleasure, regardless of whether or not society is a Benthamite sum of pleasure minus pain.

Still, it is popular to enshrine the professions in service. Perhaps one can make it so by saying it is so. "If, and only if, a person serves society can he be a professional!" There, we have done it by decree. But even then, you can't tell. Ivan Illich has made a considerable reputation merely by pointing out that those who think they are being saved can be enslaved. To put the point more pungently, as C.S. Lewis observed about a certain lady, "She's the sort of woman who lives for others — you can always tell the others by their hunted expression" (Screwtape Letters). If, in their service, the serving professions do not serve those whom they profess to serve, are they serving professions? It would seem not. And thereby is exposed the Achilles Heel of claiming that a person is a professional by virture of his service to society. Society, it may be, could best be served by those who only stand and wait.

No, a professional may be of service to society. But you can't tell a professional by his service to society. This is not to deny that a professional may serve something, as a scientist may serve the advancement of knowledge, and worship, with Jacob Bronowski, at the Shrine of Truth. But that sort of service has to do with what a person commits himself to, not what you can tell about him.

IV

Let's try one more modification: "A professional is one who has been licensed by the government to perform a particular service." If it takes a license to use your skills, then you are certified a practicing professional. Physicians and lawyers are in. They may make their living playing golf or politics, but they are certified physicians or lawyers. Barbers are also in, the state licenses them, as it does morticians. Clergymen are out — no state certification as yet. School teachers are in; they are certified, professional educators. College professors, regardless of the name "professor," are out — no certification. And, incidentally, many professors themselves would deny that they are professional educators. Rather, they are professional chemists, historians, psychologists, etc., as certified by their academic credentials.

There certainly does seem to be a move on to get the government to license everybody, so that we don't have to worry about somebody taking license. There is a certain attraction to this -- it eliminates quacks, faith healers and "ministerial" tax dodgers. It does not matter

whether the professional serves anything or anybody, the only thing that counts is that he has been certified: "Government Inspected -- Qualified to Serve." Like prime beef, a professional is so by state decree.

The obvious trouble with credentials as the mark of professional distinction is that they cannot guarantee the integrity of those so marked. Certified "Professionals" need stand for nothing but a piece of paper, serve nothing but the examiner and die for nothing but a label. This may be what professionals are coming to, but it is not what made it a "good thing" to be a professional in the first place. Pay, wonder-working skill, social service are all closer to "being a real pro" in dignity, honor and respect. No, certification may be useful. It may even be necessary. But certification alone does not a professional make, no matter how many government agencies stipulate that it is so.

V

So it goes with all the conventional ways we use to spot a professional. A professional is a member of an exclusive brotherhood — so are Masons and Mafiasi. A professional maintains distinctive ceremonial practices, including the use of special titles and distinctive clothing — so do Disney Mousketeers and the Klu Klux Klan. A professional uses special jargon as if it were a secret incantation — so do children at play and alumni at reunions. A professional has prestige and is given preferment, including special privileges — as are beautiful women, tall men and the wealthy, without thereby being professional models, professional giants or professional millionaires.

It is beginning to look like you can't tell a professional by what he does.

What is the point of all of this? If you are looking for some conventional mark, some sign of designation, which will infallibly identify a professional, there is none. This is not to say that we don't use such signs and marks — both in announcing professional claims and deferring to professional authority — but we also know they can be bogus. Mr. Goodwrench may work wonders with his skill; your Neighborhood Professional may sell real estate in a special coat, but this does not necessarily make them professionals except in the eye of the camera.

Yet, there must be something under it all which encourages us to trust the marks of a professional. We do, in fact, accord to "professionals" the right to make independent judgments on things which matter to us. This "autonomy" of the professional is often cited as the key characteristic of the professional. But the truth of the matter is that we do not trust the professional to make an independent judgment, but the right judgment independently. And not just right about anything, but right about certain things. The professional physician will diagnose correctly, as would any other professional physician. If in doubt, consult. Independently, different physicians should make the same diagnosis — or else at least one of them is wrong, which means professionally deficient.

Divines make right judgments on matters of divinity, lawyers on legality, mechanics on things mechanical — if they are to claim professional status. Each is, by his own profession, committed to a calling — to preserve some particular value. Not just any value, but some

value. That value is supposed to matter to him and be preserved by all who share his profession. He professes his maintenance of that value by his actions and excludes from his professional fellowship any person whose acts deny that value.

If there is any way to spot a professional it is by what he professes, the value which he vows to maintain by word and deed. There can be no profession if there is no ethic professed. But more, no profession can be maintained unless those in it show in their actions that each, independently, maintains that value by which they all, collectively, live. So much is this so that we tend to ignore the question of whether or not a professional ever actually took a vow to maintain a value. Rather, we look to his actions. Those who devote all their skills to a specific value are the "real pros."

For instance, those who devote all their wit and skill, time and devotion, to winning are the athletic paragons of professionalism. Their oath was pronounced by Saint Vince Lombardi, "Winning isn't everything, it's the only thing." Professional athletes are sworn to win. Winning has shaped their habits and is enforced in their behavior. They must not consort with known gamblers — as Joe Namath learned — lest people suspect that they will throw the match. Of course, it is best to win with class and within the rules, but spit-ball artists only get fired if they are thrown out by the umpire. And if you don't win it is the end of your professional life; you get cut from the squad.

Do I make too much of the significance of being a professional winner? Perhaps. But surely there is something to it. The raised index finger, the chanted vow, "We're Number One! We're Number One! " are as close to "making a profession" in the old fashioned religious sense as many of us will encounter. And the actions of those who so vow clearly show a commitment to their calling — winning. Winning constitutes the bond which holds them together and defines the continuity of their institutions. Losers don't last!

VI

The resonance of our society to the value of winning suggests a second note about the status of the value a professional vows to maintain. The value definitive of a professional not only tells us who is a professional, but also indicates the relationship of particular professions to the larger society. Is winning desired in a society? Then professional winners will be honored. Do professional winners get the upper hand in a society? Then the whole community will become devoted to winning. Either or both will do.

Consider, don't you expect a lawyer to win his case? Don't physicians wish to avoid losing a patient? Don't clergy brag on the number of souls they have won? The business pro closes a deal and rejoices: "We won that one." The scientific professional devotes his life to being first with a discovery -- priority wins the Nobel!

Insofar as all of this is true, you can tell a professional by his ethics — not just that he has an ethical commitment, but what value(s) he is committed to. And you can discover the values of a society by the place of professions within it.

When our society accords a central place to the value realized by a group of people, then all the conventional marks of a professional follow. If worth in the society is measured monetarily, as it is in ours, professional stature will be measured by pay checks. If winning is desired for its own sake, winners will be well paid. And they are. Those who serve the god of victory also serve the society which places victory in its pantheon. The society which reveres winners will provide for training in the skills which lead to winning. Certificates — trophies, awards and citations — are awarded to winners. And those who do the certification are fast becoming governmental, or quasi-governmental, agencies. Winners constitute a select brotherhood, climaxed by the ceremony of being enshrined in a hall of fame. Winners can be heard to speak in strange tongues where the jargon of their game gets mixed with phrases like "psyching up (or out)," "going for broke," "beafing the odds" and "super star." Those who make a profession of winning gain notable autonomy. They can call their own shots in a society which reveres winners — they are given a place of honor, are pestered for autographs, showered with free gifts, and paid for irrelevant commercial endorsements.

Seek ye first to profess a value your society holds high and all these things shall be yours as well!

VII

Now we are in a position to see why being a professiona is "in." But we have also discovered why professional status has become as ephemeral as a Madison Avenue claim. A professional is a professional if we say so. Our professionals are the people who help us realize and preserve those things we value most. Those things we value most we only trust to professionals. Made in our own image, modern professions are embodiments of the values of the day and are as good as those values.

Modern professions multiply as our values fragment and specialize. They constitute the polytheistic pantheon of our pluralistic lives. As the gods of old were promoted or demoted because of the needs of the moment or the adequacy of their service, so professions are ranked by the preferences of the moment, pricised for their favors and importuned for their service. Likewise, they are downgraded or cast aside when they fail us. We enshrine the professional as the creator of our values, but the status of any given professional is a creature of our preferences as measured by his ability to garner our dollars.

There may have been a time when each profession was an independent center of value. That is no more. Our professions are centered in dependent values. A professional maintains his status so long as he realizes those values. But even should his skills increase, he will be cast into outer darkness when we change our preferences.

Once, Shakespeare could have King Richard cry, "A horse, a horse, my kingdom for a horse." Madison Avenue has updated Shakespeare, and provided more ready service. Mr. Goodwrench will provide a functioning auto in return for your kingdom. Your Neighborhood Professional will turn your kingdom into a house. They are professionals. We can tell it because they profess our values of the moment. But who will be the professionals of the moment when we are out of gas and out of space?