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WITH SCIENCE AND TECHNOLOGY

(ITEST)

NEWSLETTER

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For Your Calendar:

The October ITEST Conference will follow the recent policy of reprising the March Workshop of the previous year. Thus, the topic of the October 3-5, 1980 Conference will be "Governmental Intervention and Regulation." We shall endeavor to bring together the March, 1979 "faculty" and one speaker to extend the discussion.

For March 13-15, 1981, the Workshop will be devoted to the topic of the industrial use of recombinant DNA. We are planning to bring together a scientist working with recombinant DNA techniques, lawyers involved in the patent suit now before the Supreme Court, an executive from biological industry, someone from the electronic media, and an ethician.

The October 9-11, 1981 Conference topic has been tentatively agreed on by the Board of Directors. We may perhaps ask three or four of the speakers from past Conferences to re-write their earlier paper in terms of the present situation and their understanding of it. This is only in the early planning stages at present. Any suggestions would be appreciated.

ITEST News:

The response to the current membership drive (for calendar year 1980) has been excellent. We have received about 435 renewals so far. This puts us just a bit ahead of the total response of last year, which ended with a total of 432. Note that 1979 was a record year for ITEST. Please send us your membership renewal now, if you have not done so. There will be no further formal membership mailings this year.

In the January, 1980 issue of the Newsletter, it was mentioned that we hope to institute a new feature. It was stated there that part of the purpose of the Newsletter is the exchange of information. To that end it was proposed that we begin publishing lists of articles published by ITEST members on science, technology, and theology. As of this writing we have received no response. Consequently we shall start with the publications of the Director of ITEST in the hope that it spur the rest of you to "let your light shine out." Do send us your publication list so that each of us may know what is available.

Robert A. Brungs, S.J., Director: ITEST

1. "Whither the Human?" The Chelsea Journal, Vol. 5, No. 4., July/August, 1979, pp. 156-161.
2. "Attempts to Develop New Types of Human Beings", The Month, June 1979, pp. 193-199.
3. "Biotechnology and the Control of Life," Thought, March 1979, pp. 37-57.

4. "A Proposito della Fecondazione 'in vitro'", La Civiltà Cattolica, Vol. 1, Quaderno 3087, 3 Feb., 1979, pp. 217-231.
5. "Biotechnology and the Social Order," The Human Life Review, Vol. V, No. 1, 1979, pp. 31-50.
6. "Technology in North America," Protocol for the International Federation of Catholic Universities, Paris, Winter, 1978-79, pp. 19.
7. "How to Answer the Faith/Science Problem," The Religion Teachers Handbook, Sept. 1978, pp. 94-95.
8. "Contemporary Technology and the Church," Communio, V, 2, July 1978, pp. 135-157.
9. "Science, Technology, Industry: An Aspect of the Context of Evangelization," Ateismo e Dialogo, XII, 4, December 1977, pp. 175-179.
10. "Prospettive della Scienze Biomediche Ed Evangelizzazione," La Civiltà Cattolica, Vol. IV, Quaderno 3059, 3 Dec., 1977, pp. 438-446.
11. "The Limitations of Science in the Solution of Social Issues," Proceedings of the ITEST-NASA Conference on the Limitations of Science in the Solution of Social Issues, March 1977, pp. 1-6.
12. "Catholic Education and the Family," Communio, IV, 3, Fall, 1977, pp. 284-288.
13. "The Religious Implications of Fabricated Man," Theology Digest, Vol. 24, No. 4, Winter, 1976, pp. 368-379.

IS THE "HUMAN CONDITION" ONLY A EUROPEAN THING?

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PREFACE. The first Colloquium Romanum took place in Rome, Nov. 10-12, 1979. It was convoked by NOVA SPES, an international movement dedicated to the promotion of human values. As a first step in their search for a new humanism, they discussed the question: "Who is Man, Really?" Thirty scientists and philosophers were invited to participate. Among them were three Nobel Prize Laureates: the Austrian, K. Lorenz; the Australian, J. Eccles, and the German, R. Mössbauer. Each participant was asked for three contributions: first, how his own research is related to the development of man; secondly, his own analysis of the "human condition"; thirdly, his view on prospects for the future. The following represents my contribution on the last two items.

ABSTRACT. It is suggested that one cause of the present low state of the "human condition" is the mental aggressiveness stimulated by the medieval university. This attitude was responsible for the birth of science as we know it, and for the rich European culture. In closing itself to other human values it has grown arrogant. An imaginary dialog is suggested with the Brazilian Indian, the Mexican Indian and the Benedictine monk.

The question of who man really is has no closed answer. It only has an open-ended one that will evolve and expand with the history and shared experience of mankind.

Any view of man is limited by the prism through which one interprets the experience. Since the second quarter of this century we have all listened as the philosophers have reflected on the phenomena of the human condition, and so, in part, we all share that vision. My own directly professional work on the impact of the radioactive environment on man is a rather constricting field. Let me rather recall a question that has always fascinated me: why is it that science began where and when it did. From that point of departure I might find some rewarding thoughts.

Let me state my conclusion in brief: the virtues that have made Europe a great culture and civilization have turned against it and have stunted human growth. It is time to raise our vision to see how other cultures evaluate the human.

Let me then meditate in the spirit of Christopher Dawson on that historical phase of the Christian west as it prepared the intellectual climate for the birth of science. At times it has been asked: why did science not arise in Athens. It is hard to answer why-not questions. But it is inconceivable that science should arise in one of the great religion-cultures of the East.

What were the elements in the Christian west that prepared for science? I would suggest that the first element was that the God of Genesis was not an irrational despot, as might be found in some oriental religion. Nor was He a little Greek god who gave vent to petty peevishness and played pranks on man. Surely, He was a God into whom men projected human qualities. He was tender, angry, merciful, just. But when people were punished they understood why.

Even if human suffering is presented as a mystery in the book of Job, it is only that there are things about God and suffering that are too deep for understanding.

Such a God would create a universe governed by laws which rule the harmonies of forces and energies. There would be an order in that universe. On the other side of it, an inquiring mind would perceive the movements to be intelligible and predictable. In short, science is possible.

There was still another element: that the mind of man was structured to understand the universe. The medieval university was the stern master that made man conscious of that capability, it was no longer the leisure of the Athenian school, but the mental aggressiveness of the university.

In the twelfth century Europe moved away from the agricultural, feudal, monastic culture of the early middle ages toward the world of the city, the Cathedral school, the commune, the guild, and the university. Stimulated by the friars the universities grew in influence. The centuries that followed saw

the educated classes of Europe, the civil and ecclesiastical leaders, subjected to a rigorous intellectual discipline. This left its mark on European culture. The world was intelligible; the mind of man was made to understand it; man was stimulated to understand. These were the conditions for the birth of science.

Even today we stand in awe of the courage of the men of the universities of Salerno, Montpellier and Toledo. On the fringe of Europe they were in contact with Moslem culture. At a time when medieval thought was still in the tradition of Boethius, pseudo-Dionysius and Augustine, these men felt a curiosity to study alien thought and culture. They looked into Arabic science, Greek philosophy and Jewish thought.

Jews and Arabs and Greeks worked alongside with Spaniards, French and Italians. For more than a century the vast task went on of translating, copying, absorbing and synthesizing. More conservative thinkers did not like the pagan, Moslem and Jewish origins of the new thought, but it was the bold who won the day.

Besides this mental courage, the medieval university handed on another quality: a love for disputation.

There was plenty room for dispute. There were the traditions of Boethius and Augustine. Then we hear of Avicenna and Averröes. We think of Bonaventure, Roger Bacon, Thomas Aquinas, Abelard and Ockham.

When real dispute was missing, they created it. The "disputatio" was a pedagogical tool. If they argued over the number of angels that stand on the head of a pin, the knowledge was useless, but the mental discipline was not.

These two qualities, courage of mind to face the unknown, and an analytic sharpness that was aggressive, these two qualities were part of the inheritance that science received from the medieval university.

I wonder at times if later events could not be interpreted in the spirit of those disputes. In the sixteenth century Luther challenged Rome: you are so enamored of your Aristotle that you cannot read the gospels. Half a century later Galileo would say: you are so enamored of your Aristotle that you cannot see the moons. Viewed from the thirteenth century these challenges might have been seen as all within that vigorous tradition. Viewed from today, when we feel the loss of spiritual unity, they are seen as signs of divisiveness. The truth probably lies in between.

Again may I suggest that, while we tend to make heroes of our fellow scientists, I do not think that scientists individually are more honest, or bolder or more innovative than other men. Boldness is a virtue we associate with the young who perhaps are not old enough to be timid, and who are innovative for they know little of the tradition. I recall that Einstein, Planck, Bohr, Schrödinger, Heisenberg and DeBroglie, all published their first significant contributions before they were 25 years old.

Modern science is somehow structured this way, to let young people make their contributions while the older moderate with their greater experience. I suspect that this - shall I call it? - permissiveness

is more responsible for the advance of science. Certainly in other fields youth does not have this play.

At any rate the qualities of mind, courage and aggressiveness, that gave rise to science were not restricted to that area of human activity. Painting and sculpture and architecture thrived. It is incredible to me the variety of musical styles and philosophical ventures that Europe has created. There was a richness of knowledge and beauty and culture that came from this aggressive Christian west. Never was a culture so cerebral, so Appolinian.

It's weakness was first seen in its lack of respect for other cultures during the colonial period. Its aggressiveness became arrogance. What started as immense curiosity was stunted by contempt. Colonialized people were so humble before the warlike stance that they hid their inner thoughts.

And if the west created science, it also created technology and wealth, and the great divergences of wealth among nations. The mainly Christian nations are, ironically, the rich nations, and the mostly non-Christians are the poor ones. It almost seems that the first thing the developed countries exported from their technological revolution was the products of the communications revolution. Now for the first time the poor peoples know how poor they are.

But it's my main point that the aggressiveness that has characterized the European culture, and the derivative cultures, American and Brazilian, has turned against man. In this post-Christian era we give honor and esteem to a man who conquers a place in society, who achieves against adversity. But instead of focussing on the inner growth of a man because of struggle, we emphasize the things he has done. We give prestige to deeds and things possessed. The emphasis has shifted from the man to the externals of a man: from "being" to "having" and "doing".

Since we have moved the center of gravity from man himself to his achievements and riches, we have created a hollowness within him. We have demanded that man have the right to conquer a place in society, but we find the price of that struggle is a sense of vulnerability. We have created social and economic mobility, and the price is insecurity. And the technological riches a man gathers, have left him with a sense of loneliness.

The theme of aggressiveness I am suggesting to men who are far more capable than I of evaluating it or analysing it. Let philosophers tell me how guilty it is.

Let me now focus for a moment on one aspect of the privacy problem, or rather the problem of the invasion of a man's provacy.

Modern man feels only too deeply how the core of his person is incommunicable, inalienable and impenetrable. Witness the theme of loneliness in modern literature.

One aspect of this theme was very well stated by Bolt in his play, "A Man for all Seasons". He put into the mouth of St. Thomas More something like this. A man may surrender part of his soul to his king, part to his wife and to his friends. But in the vast realm of a man's soul there must be some small place, no bigger than a tennis court, where a man must rule himself. Here I must decide. Here I am free, not in the sense that I can do anything I please, but I am free in the sense that I can

build my kind of person. It is not just a freedom from restraints or pressures. It is the freedom to create a person.

That is the theme. But also running through modern thought and life is the anti-theme that man is afraid of freedom. And in this I sense the great tragedy of the modern problem.

It is an awe inspiring task, that responsibility of building a person. It is a lonely task, for I and only I can do it. Freedom and responsibility and loneliness are only different facets of the same thing. In consequence, many a man prefers security to freedom. We would like to live a life carpeted with wall-to-wall security, and not accept the uncertainties and risks that go with freedom.

We often hear of the threat to freedom that comes from the means of mass communication. Propaganda for the government and for commerce can monopolize a person's thinking hours and take possession of his mind. It seems that the aggression of a few might lull to sleep the aggressivity of the many.

To me, however, the real danger lies in the spiritual laziness of men who want that to happen, who welcome it. I am appalled at the ease with which young people permit their social context to dictate their tastes, attitudes, values and even professions. Young people leave their homes, and rather than face the spiritual and intellectual confusion of the day, they sell their free spirit of inquiry for the security of the group. The fault with consumer society lies not in society but in the consumer.

Nevertheless, I see in the very venturesome spirit of today a fresh ray of hope. Let me try to say this in a different image.

We think of each man as having his own private space and time. No one may or should dare to intrude on this private space-time. In it the inviolable person is growing. It is a sacred process. With this image we interpret much of the evil of modern life as an intrusion into the private space-time of another.

Am I just dreaming when I say that I think I see in some strong individuals, a desire to break out of these bonds, to transcend time and space?

I think of an archeologist, or any other scientist, as a man trying to understand himself. When he makes the discovery of a man who lived a million years ago, it is not only the delight of discovery that sparks him. Nor is it only making contact with a brother man. As I read accounts, it seems to be the sheer delight of a man discovering that he himself was there. It is another Halley searching for his family in Africa and discovering his roots. A man wants to abolish the barrier of time, and live back in the past as well as the present.

And space, is there not also a yearning to transcend that also. We could always in fantasy travel. In these days we can go any place on earth and almost any place in the solar system. Is there not now a desire to be bigger than space permits?

These strange desires, if they exist, I would not identify with the thoughts of French theologians of a generation ago: the natural desire for the supernatural. No, I would rather identify it with the

human desire, since the First World War, for community.

As a Christian I should be an optimist, and I might be only seeing what I want to see. Still I sincerely feel that men want to break down what separates them and form a genuine community. And this desire is rooted not in a great vision of the spiritual good, but in real grief that something important has been lost.

PROSPECTS

I began my thoughts at this Colloquium from the historical moment when the men of the universities of Salerno, Montpellier and Toledo turned their thoughts to Arabic science, Greek philosophy and Jewish thought. I suggest that the time has come for Europe to return to its point of strength, an openness to other cultures.

May I suggest, then, three points of comparison, and three corresponding tensions in human values for your consideration?

The first is the Brazilian Indian. What you have to say about the "human condition" does not really apply to him. Even in your moment of self analysis you have been too narrow, too European. Since the First World War the European has been engaged in a prolonged bout of self-pity about his or her 'human condition'. Then he or she thinks this is true of all peoples. How does the European know that?

In an imaginary dialog with the Brazilian Indian, may I ask you to concentrate on the tension of man's relation with his environment. The Indian's ideal is to pass through this life without leaving a trace. He will disturb nature as little as possible. I cannot agree with the animism that inspires this. He believes that nature is more sacred than man. I do not.

Between his passivity, however, and the European aggressivity, is there not a milder mean? The God of Genesis, it is true, told man to go and subdue nature. But is it not time that we have arrived at a point of equilibrium?

The second person with whom I would suggest a dialog would be the Mexican Indian, and the tension I would call attention to is our attitude towards suffering. When a Mexican midwife helps a child be born, she welcomes him to this world, telling him this is a world of suffering; that suffering is the thing that characterizes man's life. Finally, she tells him, there will be a day of liberation. Is there not something more strongly human in this than can be found in our "aspirin" culture? Surely, we can learn something there. The person who always runs away from suffering may be missing out on an important part of life. Suffering can have a deep positive meaning for life.

The third person with whom I would suggest a dialog is someone who might be more familiar: the medieval Benedictine monk. And the tension I suggest you reflect on is that of moral good and evil. When you come down to it, maybe the best definition of man is that he is the only animal who is capable of moral evil.

The monk was many things, as the modern European is. He was first of all a farmer. He was a good one, and successful. He respected culture and carefully transmitted it to other generations. He was an architect and a technocrat, and used water-power in new ways.

But he was a man who knew who he was. He did not wander through life searching for meaning as if it were a thing to be found on a road. He had his meaning, and one of his functions in life was to give meaning to other things. Like Adam giving names to animals, man states the meaning of things in life.

On the ceiling of the Sistine Chapel you can see Michelangelo's painting of the creation of Adam. The finger of the Creator stretches to touch that of Adam as He breaths into Adam a living soul. In this world man has to have that inner spiritual energy to point at things in this world and give them meaning.

In a word, the presence of man in this world is ambiguous: it can be satanic, but it can also be sacramental.

ACKNOWLEDGEMENT

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- (1) Christopher Dawson, "Religion and the Rise of Eastern Culture", Sheed and Ward, N.Y. (1950).
- (2) Robert Bolt, "A Man for all Seasons", Samuel French, N.Y. (1960).

THE SACRIFICE OF PRAISE

by Calvin Pitts

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Can giving praise be a sacrifice?

This seems almost like a contradiction in terms. Intuitively one would think that praise is a natural response to having received blessings; therefore what sacrifice could there possibly be in being thankful for good things? On the other hand, human nature resists being thankful for hard times. Who could possibly thank God for failure, defeat, humiliation, pain?

Praise, a sacrifice? Sacrifice means giving up. What are we giving up when we praise God?

First, we give up the right to understand.

It is not so hard to bear a thing if we see a meaning to it, if we understand its purpose. But to be thankful for something which we do not understand, which by all human standards seems a waste,

that's difficult. Praising God in that moment is an acknowledgement of his love, faithfulness and wisdom not to make a mistake....

Second, we give up the right to depend on our own resources.

Self-confidence and courage are natural for some persons. The Stoics were known for their ability to accept misfortune without complaint. We can be Stoics, not complaining, but still hating our tormentors....But God does not call us to have courage in trial. He calls us to have faith. Even fearful people, weak people, can have faith. And that's good news. Our calling is not to be Stoics but to be believers whose faith will take us beyond the "grin and bear it" methods of the world....

Third, we give up the right to be in control.

For the independent, self-sufficient, rugged individualist, this is foreign. We are programmed for competition and hard work. Control is at the heart of most activities in our culture....

How difficult it must have been for Job to listen to his friends as they analyzed the reasons for his misfortune. And yet, through all his confusion and vacillation, one clear strain emerged: "This matter is beyond my control; it is in God's hands. 'Though he slay me, yet will I trust in him' (Job 13:15)."

To praise God for adversity is to acknowledge that he is sovereign and that he makes no mistakes. It is also an act of submission whereby we lay our independence and individualism at his feet.

Fourth, we give up the right to expect sympathy and admiration for our courage.

How can we expect sympathy (or pity) for something which gives us cause for rejoicing? We should expect others to rejoice with us in the trial rather than to pity us for it. Isn't it interesting that Paul was able to get his companion to sing with him in jail?....

To praise God for the worst situation in our life is to offer it up to him for his comfort and consolation and love.

Fifth, we give up the right to carry our own load.

Our natural pride tells us to make it on our own. But to praise God for the worst circumstance of our life is to offer it up to him in recognition that it is his quandary and his burden. He invites us to cast our burdens upon him. Where, then, is the sacrifice involved? It is at the point where our pride is challenged with the admission that we are not strong enough to carry it ourselves. Our praise is an acknowledgement of weakness.

Sixth, we give up the right to wallow in our guilt.

With the passion to remain in control, the instinctive reaction is to blame, and often we blame ourselves....

We become conditioned to living with guilt. It becomes, in effect, a security blanket. It is easier to live with the familiar feelings of guilt than to risk the unknown world of freedom and joy. Give up this negative security. Praise and celebrate, and then see if guilt can live.

Seventh, we give up the right to judge others.

If we expect Grace from our heavenly Father, we must extend grace as an earthly father... or

mother...or friend. The proof that our love is not conditioned upon a person's performance can be seen in this, that we offer praise for the way that person is now, not for the way we wish he were, and no, not even for his potential. This is an extension to them of God's Grace for us.

Eighth, we give up the right to judge ourselves.

This is not to discourage growth, but it is to recognize how easily we become disappointed in ourselves for falling short, and then allow this disappointment to translate into guilt and depression. To praise God is to open our hearts to forgiveness.

Ninth, we give up the right to judge our circumstances.

When things go badly, we complain and soothe our hurt feelings with self-pity. What we are saying is that we deserve better than this. We are worthy of more. Learning Paul's lesson -- "I have learned, in whatsoever state I am, therewith to be content" (Phil. 4:11) -- is to be thankful for what we perceive to be bad circumstances, knowing that our judgment of those circumstances may be in error. To rejoice in the lion's den is to allow faith to show us that "all things work together for good to them who love God" (Rom. 8:28), which is quite a different way to judge what we might otherwise perceive as bad times.

Tenth, we give up the right to dictate the terms of our own training programs.

God may be training us. Who are we to complain about God's training method's? Preparation may be inherent in God's special providence for us, and if so, we will see it better with an attitude of thanksgiving.

The issue, then, is more than submission. It is contentment.

And prosperity? What about that? If we resist being thankful for hard times, do we remember to be thankful in good times?....

It seems strange to think that praise is not natural in prosperity. Perhaps it is natural to feel grateful for good circumstances, for good health, and for the good results of hard work. But this is not necessarily the same as offering praise to God.

Feeling grateful for circumstances is not the same as acknowledging God to be the sovereign Author of those circumstances. During the times of good fortune, praise as sacrifice implies giving up the right to take credit for success. This is difficult for self-made men and for those who take pride in the fruits of their work: "why should God get the credit for what I've done?"

To praise God in prosperous times implies that we have learned to be gracious receivers. To give thanks when things are going well is to witness to those blessings we have received at his hand. It is to take the humble station of being a receiver. "By him therefore let us offer the sacrifice of praise to God continually" (Heb. 13:15).

Excerpt from the paper delivered by Dr. Charles Dechert at the October, 1979 ITEST Conference on "The Technology of Social Control." The entire paper will be published in the Proceedings of that Conference. The Proceedings will be sent to all dues-paid members.

Supercontrolled Social Environments

A supercontrolled environment is one which is relatively isolated; external interventions are minimized and regulated at the system boundary. The physical environment is planned for effect, emotional and cognitive.

It may employ isolation and sensory deprivation as is often done prior to police interrogation -- or in spiritual retreats. It may manipulate space and proportion and the sequence of forms and events as did Grecian sacred precincts, the Sibylline caves, and the rites of initiation into the Eleusinian Mysteries. Order and disorder, pleasurable and painful sensory stimuli may be used for effect, loud noise, random interruption, dropping water, visual anomalies such as those employed in at least one Spanish Republican prison in the late 1930's, pleasure gardens such as those set up by the Old Man of the Mountain.

Temples and palaces, parades and liturgies, the Panopticon prison and the convicts' shuffling gait, McDonald's cleanliness and assembly-line precision, Disneyland's smiling hostesses and neat, sterile 3/5th scale fantasies are microenvironments designed for effect. The more closely we approach the now and commercial profit (or political power and resource control), the more likely the physical and human environment has been rationally organized, experimented with to maximize impact (effectiveness) at a given cost, routinized with standardized, tested behavioral sequences and response patterns (including well-trained smiles or frowns). Interpersonal actions are largely planned and organized, again for effect, and may take on an almost liturgical aspect.

Finally organizational systems employing supercontrolled environments usually have some rather clearly defined human purpose and (putative) ways of achieving that purpose by eliciting desired responses from the human operators and/or throughput. These organizational systems include factories and assembly lines, some commercial establishments, schools and seminaries, prisons and interrogations centers, military training installations, hospitals, asylums, and institutions for the delinquent, orphaned, or aged. At a minimum such institutions may be designed simply for secure human storage: most prisons and the back wards of mental institutions, for example. One of the principal pragmatic arguments for psychosurgery is that it reduces custodial costs.* At their most subtle and sophisticated, controlled educational environments present the learner with a broad range of superable challenges adjusted to his ability, personality, character and "style", and existing level of attainment. Analytically, the community itself can be conceived as a "teaching machine" engaged in life-long human formation -- more or less effective in developing competent, productive, fulfilled, happy and virtuous people.

*Carried to its logical conclusion such a calculus would justify the Nazi program to kill off ("humanely") the incurable and insane, or rationalize in terms of cost-effectiveness the lager system in which the imprisoned build their camps and do productive work.