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Synthesis and Relationships in Culture

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ROLE OF THE MASS MEDIUM IN CULTURAL SYNTHESIS

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It's dark in this wood, soft mocker,
For whom have I swelled like a seed?
What a bone-ache I have.
Father of tensions, I'm down to my skin at last.

Theodore Roethke[1]

We live under great strain in our cultural environment. There are within it two strands, at present opposed to each other, but which we must fashion as complementary if we are to survive.

The one strand, traditional and centuries-old, is based upon values dominant in tribal societies and which have been taken over with minor modifications in our urban societies, in which the tribe has long given way to the nation.

The other strand, comparatively recent, is based upon the impact of science and technology on societies in which current values are still, basically, the traditional.

I take 'cultural-synthesis' to mean the process of securing the building up of the separate elements that constitute our culture into a connected whole, a joining of divided parts, to form 'one culture'. I define 'culture' as the complex of distinctive beliefs, attainments,

traditions, etc. which make up our social/behavioural patterns. It is the complex of moral, intellectual and aesthetic values which each society fosters in its pursuit of 'the good life': for example, guarantees of personal freedom, absence of race and religious intolerance, and increases of social welfare to smooth out inequalities.

In this context, I focus my approach on Science as one element, confluent with the Arts and Humanitites, in its relationship to our culture, and the part played by the mass medium in furthering cultural synthesis.

There is, and there will continue to be, between, and within, each academic discipline forms of specialization. This is true, particularly, of science. The common, unquestioned statement is that science is so divided today into specialisms, accordingly so fragmented, that synthesis within it is not possible. It is true that the scientist specialist in subject X finds it difficult to understand the technical language of the researcher specializing in subject Y.

Thus, when, in December 1965, the pathologist and Nobel laureate, Lord Florey, gave his farewell address as president of the Royal Society of London, he said he had often asked himself, as he presided at RS meetings 'in the privileged position of not understanding the paper being given and so of being able to survey the audience', whether the meetings still served a useful purpose. His successor, the physicist and Nobel laureate, Lord Blackett, told me that he only

glanced through Nature, the international London-based weekly, because most of its science papers were incomprehensible to him.

But, as the immunologist and Nobel laureate, Sir Peter Medawar, points out, 'so tiny and so far apart are the smallholdings we (the scientists) cultivate that scientists can hardly communicate with each other', and, he goes on, 'there never was one science only. . . There were always sciences and there were always arts, and no one man knew them all . . .' However, he believes sciences are becoming more, not less, unified. For instance, the chemists and physicists active in biology are providing 'new and deeper understanding of the structures and performances of living creatures - especially their growth and heredity. Without that, molecular biology would not exist.' [2]

Reinforcement of this view exists in a growing understanding that because of specialization the mediums have a role to play in the popular presentation of the specialisms of science to the scientists themselves. Such publications as the Scientific American and Science (USA), Nature and the New Scientist (UK), La Recherche (France) and SE (Italy), express the changes occurring within science, and this means that the popular presentation can no longer be treated as exogenous to scientific research. It is part of the research process in that it has become an essential element in the production of knowledge. Scientists themselves are translating their specialist ideas into terms which today's Floreys and Blacketts can understand. With that, new disciplines are eased into existence.

Can we find, soon enough, the appropriate social mechanisms to incorporate into our basic patterns of behaviour the essential changes the new disciplines, such as robotic science, will require if our societies are not to be wreched? Thus, the wider introduction of robots into industrial production will progressively reduce the labour force. This is aptly expressed in a recent comment by Sir Terence Beckett, director-general of the Confederation of British Industry, who said, 'There is a firm making silicon chips whose R&D is so advanced that it is looking for smaller premises.' What social values shall we need to insist upon to respond to the centuries-old prophesy of Aristotle, 'When the Loom spins by itself, and the Lyre plays by itself, man's slavery will be at an end.'

Indirectly, this was a question the English novelist and scientist, C.P. Snow, addressed in his seminal Rede Lecture in Cambridge, England, in 1959, when he introduced that felicitous phrase, 'the two cultures.' [3] He meant by that 'the gulf of mutual incomprehension' that separated literary intellectuals at one pole from scientists at the other. He believed the intellecutal life of Western society was being split increasingly into these two polar groups.

Snow ended his lecture with a plea for the closing of the gap as 'a necessity in the most abstract intellectual sense, as well as in the most practical. When these two senses have grown apart,' he warned, 'then no society is going to be able to think with wisdom.'

We heard Snow's warning, but we have not heeded it. The gulf, I fear, is too deeply rooted in Western cultural experience to be

bridged overnight. Yet bridged it must be. Is not this, then, part of the rationale for cultural synthesis?

The gulf is between 'the tangible' and 'the intangible': between the traditional quadrivium (arithmetic, geometry, astronomy and music - meaning the study of acoustical properties) and the trivium (grammar, rhetoric and logic): between the quantitative expressions of reason and the qualitative values of beauty, goodness and truth. In the early 13th century, the term machina mundi (world machine) came into favourable use, followed in the late 16th cenutry by the new Western science which began with Galileo's unification of celestial and terrestrial physics.

The identification of scientific and social progress has always had its critics. The awe-ful rationality of Western science has its censurers since it emerged four hundred years ago. It is this second strand I referred to in my opening to this paper - that concerned with the impact of science and technology - which has brought into being the counter-culture. This is the challenge to the compatibility of science with the traditional, the accepted standards and purposes by which societies regulate themselves.

The American, Theodore Roszak, expressed this forcibly, 'I have insisted that there is something radically and systematically wrong with our culture, a flaw that lies deeper than any class or race analysis probes and which frustrates our best efforts to achieve wholeness. I am convinced it is our ingrained commitment to the scientific picture of nature that hangs us up. The scientific

style of mind has become the one form of experience our society is willing to define as knowledge. It is our reality principle, and as such the governing mystique of urban industrial culture.'[4]

The strength of the widespread criticism of science has not equally affected technology, which is regarded as the instrument of material wellbeing. Science is seen as the parent of, for instance, nuclear weapons, polluting industries, cancer-bearing chemicals, electronic social controls, and genetic engineering immoralities. Despite this, the search for new knowledge cannot be limited. We need urgently to know more about, for instance, the stability of ecological systems, the molecular behaviour of plants, the genetic program of complex organisms, and the electrical activity of the brain, if we are to be able to cope with such emergent problems as acid rain and its devastating impacts, the destruction of the world's tropical forests, the inevitable growth of populations and how to feed the ever-increasing billions.

However, the scientific knowledge alone is not sufficient. There are values to be expressed in the applications. These are formulated in the literature, arts, philosophy and religions of our societies as the complex of distinctive attitudes and traditions embodied in our social institutions and human relations.

There is only a pessimistic future for humankind if we do not concern ourselves with the One Culture: understanding that there are different roads of endeavour within that One Culture, roads built and under construction, along which go humanists, philosophers, theologians, artists, writers and so on: That these different

roads lead but to one central point where humankind is to be found.

The different travellers along these different roads have their own conception of reality. I am concerned with seeking how far the reality made apparent by the scientist is in accordance with the reality revealed, for instance, by the artist, and by the travellers along other roads. There is a non-linear relationship between discovery made along these different roads.

This was demonstrated by Paul Valery when he quoted the following from a Leonardo da Vinci manuscript: 'The air is full of infinite, straight, radiant lines crossing and interweaving without one ever entering the path of another, and they represent for each object the true FORM of its cause.' Valery was writing in 1894, a year before the discovery by Roentgen of X-rays, and at a period when the undulatory theory of light was in vogue. Roger Shattuck argues that the poet was discovering in Leonardo 'an early formulation of field theory, something that had not yet taken clear shape out of Maxwell's electromagnetic theory published twenty years before.' He believes that the vast changes in physical theory after 1895 had a profound effect on writers and artists: for instance, that Monet worked intutitively in harmony with the leading scientific theories of the day, painting 'matter itself.'[5]

I see the relationship between the cultural events as rather like physical events around an earthquake. From its focus, stimulated long before, the earthquake is responsible for happenings over a very wide area over a period of time. If we assume, for instance,

that the second law of thermodynamics is a cultural earthquake, why cannot we seek out its focus, which probably lies along a different road, say that trodden by the artist? The music of Stravinsky or the art of Picasso may be regarded as cultural earthquakes. What and where were the foci which triggered them off, and where in other roads of endeavour can we trace the effects?

Now, let us consider the role of the mass medium. I regard it as unwise to use the plural word 'media': only the singular, the medium, qualified by the adjective 'mass' is relevant. The fact is that the mass medium is our cultural environment as the surrounding air is our physical environment. Of course, there are particular fields, such as the newspaper medium, or the television medium, or the radio or film medium.

The mass medium has done nothing to foster cultural synthesis, and is unlikely to in the future, because cultural synthesis is concerned with the statement of certain values: for instance, love thy neighbour as thyself. The mass medium has only pseudo-values: increasingly, it is becoming a cosmopolitan form of soft pornography, without a real humane centre.

This need not be so, but in our fast-food civilization the mass medium is the primary form of entertainment. The model medium is television. It demonstrates that its task - and that of the other mediums - is 'to construct a pattern that will be accepted and used by the audience.'[6] Or, 'What counts is not reality, as a scientist might measure it, but the ability to communicate the

situation in a believable, human way.'[7] The box office for commerical television is the advertisers, and they buy not programmes but mass viewers.

The medium as mass entertainment can take into account only what peoples have in common and not what distinguishes them culturally from each other. The mass medium is concerned with the lowest common denominator. The creative innovators have been obliged to yield to the management executives as craft production has given way to industrial production, as the socially critical programme has been driven out by the least objectionable programme.

The new electronic techniques as used by those with the economic and political power - the large, multi-national corporation or the state-controlled enterprise - are the powerful instruments of mass entertainment. The vision that the high technology innovations would create a more individual and personal form of expression has gone. An imposed, mass, fast-entertainment culture is existent throughout the world. The television model is the archetype: each of the mediums now adapts this: for instance, the tabloid newspaper, or the carefully manufactured mass paperback novel.

And, the next development is the integrated services digital network (ISDN). This is described by Anthony Rutkowsky, of the US Federal Communications Commission; 'Electronic technology at every level, from small components to large networks, now appears to be evolving toward a common end: the complete interconnection and interoperability of nearly all computer and telecommunication systems to provide universal and complete services for capturing,

storing, processing and transporting most of the information which society desires to retain and communicate.'

In the ISDN world, sociocultural differences of nations are more likely to vanish than to be encouraged. The transfer of mass medium values can contribute only to cultural alienation within the recipient countries. If we wish to secure a cultural synthesis which fosters the humane values and goals then we should consider urgently the development of a cultural policy to cover all aspects of cultural life, and based on three main principles - diversity of provision, universal availability and popular participation.[8]

An appropriate cultural policy could lead to the cultural synthesis we are concerned with, in which the integration of defined values might cancel the alienation of people from those values. Science would come to be accepted not as concerned with quantifiable objectivity, but also with non-quantifiable subjectivity. In a humane society, cultural synthesis would provide science with a new function. But that is another debate, and my paper is already sufficiently tentative.

Let me end with a reminder by the classical scholar, Sir Ernest Gombrich, formerly director of the Warburg Institute, of the 'extent to which we are the heirs of many and diverse civilizations.' He began an address to the American Academy of Arts and Sciences in 1981, by pointing out that 'the programme you hold in your hands is printed in characters we derive from the Phoenicians, modified by the Greeks, the Romans and the Carolingian scribes whose forms were

taken up in the Italian Renaissance; the numerals have reached us from ancient India via the Arabs; the paper on which it is printed is an invention of the Chinese which came West in the eighth century, when the Arabs took Chinese prisoners who taught them the art of paper-making.'[9]

If our problem is how to enjoy the fruits of specialization without the dominance of specialists, then may not 'cultural synthesis' be a social mechanism to secure this - but independently of the deadening gleichschaltung imposed by the mass medium?

Notes

1. Theodore Roetnke, Collected poems (London: Faber, 1985)
2. Peter Medawar, The limits of science (Oxford: Oxford University Press, 1985), p. 71.
3. C.P. Snow, The two cultures and the scientific revolution (Cambridge: CUP, 1959).
4. Theodore Roszak, 'Some thoughts on the other side of this life' (New York: The New York Times, April 12, 1973): 45.
5. Roger Shattuck, The Innocent Eye (New York, NY: Farrer, Straus and Giroux, 1985).
6. Robert Snow, Creating media culture (Beverly Hills: Sage Publications, 1983) p. 18.
7. T. Schwartz, The responsive chord (Garden City, NY: Doubleday, 1974) p. 5.
8. Graham Murdock, 'Cultural policy and consumer choice in the new television age: from rhetoric to reality'. Background paper for Symposium on Technological development and new challenges of cultural policy, Council for Cultural Cooperation, Council of Europe, Strasbourg, 1983.
9. E.H. Gombrich, Tributes (Oxford: Phaidon, 1984) p. 11.