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ERIC A. TRIST

Eric A. Trist was born and educated in England at Cambridge University. He is a trained psychologist and is one of the founders of the Tavistock Institute - a social science research organization outside of London. He has been primarily concerned with developing organizations by optimizing the social and technical aspect of organizations into socio-technical systems. An educator, scholar, author, and researcher, Dr. Trist has been a consultant to firms in Britain, the Netherlands, Scandinavia, and the U.S. He is currently the Chairman of the Board of the Management and Behavioral Science Center at the Wharton School of the University of Pennsylvania which conducts research on the quality of work life and interorganizational phenomena.

Trist developed the concept of a socio-technical system while studying the effects of mechanization at the Durham Coal Mines in post war England. The inroduction of new machinery broke up the traditional small work teams into a large assembly line system which gave the worker litte opportunity to use his skills or communicate with fellow workers. The socio-technical system meshed the psychological needs of the workers with the technical needs of the mine. The work was reorganized into self managed work groups which permitted communication and job rotation and productivity and satisfaction increased.

The Elements of a Socio-technical system include:

    A.   The psychological person with needs for variety, learning, discretion, and social relations

    B.   Principles of job redesign on 3 levels

        1.   Individual
           - variety
           - sense of completion of whole
           - optimum work cycle
           - feedback
           - use of skill

        2.   Group - interdependent tasks, job rotation, and physical proximity

        3.   Between groups, depts., and shifts
           - channels of communication
           - channels of promotion

This has been applied to a wide variety of organizations: refineries, utilities, air traffic control, food processing, and mining to name a few.