

Introduction to Engineering Technology

Physiological, psychological, and philosophical approaches

Motivation has been studied in a variety of ways. For instance, it has been analyzed at the physiological level using electrical and chemical stimulation of the brain, the recording of electrical brain-wave activity with the electroencephalograph, and lesion techniques, where a portion of the brain (usually of a laboratory animal) is destroyed and subsequent changes in motivation are noted. Physiological studies performed primarily on animals other than humans have demonstrated the importance of certain brain structures in the control of basic motives such as hunger, thirst, sex, aggression, and fear.

Motivation may also be analyzed at the individual psychological level. Such analyses attempt to understand why people act in particular ways and seek to draw general conclusions from individual cases. Through studies of individuals, for example, it has been found that both men and women proceed through a series of identifiable stages of arousal during behaviours leading to and culminating in sexual intercourse. The finding may be applied to people in general.

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Motivation of an individual is also influenced by the presence of other people. Social psychologists have been active in discovering how the presence of others in a given situation influences motivation. For example, students and teachers behave in predictable ways in the classroom. Those behaviours are often quite different, however, from the way students and teachers behave outside the classroom. Studies of conformity, obedience, and helping behaviours (which benefit others without reward) are three areas in this field that have received considerable attention.

Finally, motivation is sometimes also approached from a more philosophical direction. That is, analyses of motivation are understood, at least in part, by examining the particular philosophical point of view espoused by the theorist. For example, some motivational theorists conceive motivation to be an aversive state: one to be avoided. Sigmund Freud's view of motivational processes could be applied within this framework; his contention that blocked sexual energy could be displaced into acceptable behaviours implies that accumulation of sexual energy (motivation) is aversive. Other theorists see motivation as a much more positive experience. That is, motivation can produce behaviours that lead to increases in future motivation. The American psychologist Abraham H. Maslow's concept of self-actualization could be applied within this framework (see below Self-actualization).

Reference

[Particle Physics Brick by Brick: Atomic and Subatomic Physics Explained... in LEGO](#)

[Fundamentals of Microwave and RF Design](#)