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MEDICAL, MORAL AND SOCIAL PROBLEMS OF GENE ENGINEERING,CLONING

The ability to negotiate and resolve socioscientific issues has been posited as integral components of scientific literacy. Although philosophers and science educators have argued that socioscientific issues inherently involve moral and ethical considerations, the ultimate arbiters of morality are individual decision-makers. This study explored the extent to which college students construe genetic engineering issues as moral problems. Twenty college students participated in interviews designed to elicit their ideas, reactions, and feelings regarding a series of gene therapy and cloning scenarios. Qualitative analyses revealed that moral considerations were significant influences on decision-making, indicating a tendency for students to construe genetic engineering issues as moral problems. Students engaged in moral reasoning based on utilitarian analyses of consequences as well as the application of principles. Issue construal was also influenced by affective features such as emotion and intuition. In addition to moral considerations, a series of other factors emerged as important dimensions of socioscientific decision-making. These factors included personal experiences, family biases, background knowledge, and the impact of popular culture. The implications for classroom science instruction and future research are discussed.