

## PSYCHOLOGY

Chairperson: ROBERT FISCHER  
Department of Psychological Science  
Ball State University  
Muncie, Indiana 47306  
(317) 285-1713

### ABSTRACTS

**Marking in Submissive Male Gerbils after Contact with a Dominant Male and His Odors.** A.M. FULLENKAMP, KIM DUFFY, ROBERT A. VANCE AND ROBERT FISCHER, Department of Psychological Science, Ball State University, Muncie, Indiana 47306.——The marking behavior of dominant and submissive male Mongolian gerbils (*Meriones unguiculatus*) was observed in two experiments within an open field. In the first experiment, the 60 x 80 cm field was divided in half by a wooden board, each half contained an elevated square. After a half hour of separation, the board was removed, and marking behavior and time spent in the area were recorded. The next day the male judged to be dominant was again placed in the divided field and allowed to mark the area for a half hour. When the male and the board had been removed, the submissive was given free run of the open field. There were no significant differences in the submissive male's tendency to mark or spend time in either area.

In the second experiment, the submissive male was presented with the same open field, this time studded with four squares. One square was clean, one was marked by a novel submissive, one was marked by the familiar dominant male and one had been marked by the subject. Others have hypothesized that the submissive would avoid or be intimidated by the odors of the dominant male. Our results indicate that the submissive marked the clean square the most, but also tended to mark the dominant square more than his own.

**Heterosexual Social Interactions in the Syrian Hamster.** BONNIE GRAY, ROBERT FISCHER AND GARY MEUNIER, Ball State University, Muncie, Indiana 47306.——The female hamster modifies her social interactions with males as a function of her estrous cycle. In order to describe these changes, twenty-four naturally cycling females were observed interacting with restrained male pairs in a Y-shaped choice apparatus on each of the four cycle days. Males differed in terms of dominance status. Variables measured included the number of female approaches, time spent in proximity, sniffing, and vaginal marking. Behavioral changes which varied significantly over the four day cycle were the amount of marking and the number of sniffs exhibited by the females. Marking increased throughout the estrous cycle, reaching a peak on the day prior to estrous. No effect for male status was found. Sniffing varied both as a function of cycle state and male status with the dominant male receiving the greater number of sniffs. No significant effects were found for approaches or for time spent in proximity. It is suggested that female marking probably subserves a general advertisement function, while sniffing is more discriminating and could reflect female proceptivity. Such olfactory investigation likely influences the probability of the occurrence of other behaviors and would form the basis of female choice.

**The Several Themes of Adolescence.** BARBARA KANE, Indiana State University, Terre Haute, Indiana 47809.——This author finds several themes manifested in adolescent

life: autonomy, control self-absorption, intensity, definition, extremism, and sexuality. A theme is a central idea, an underlying issue, or a repetitive pattern. Other authors, notably Blos, Elkind, Erikson, A. Freud, Hall, Marcia, and Sullivan, have addressed the topic of adolescence, but none has seen this number or variety of specific major concerns.

Autonomy is the adolescent's drive to separate and counterdrive to cling. Control includes relinquishing control, resisting control, achieving control, and pro-social control. Self-absorption is the egocentrism and narcissism of adolescence. Intensity refers to adolescents' urgency and passion, and their need for immediacy. Definition is the adolescent's striving to replace confusion and ambivalence with identity and commitment. Extremism refers to intrapersonal and interpersonal polarities that are seen in adolescents' needs, interests, values, and activities. Sexuality includes the lust dynamism and the need for intimacy.

At no other time in the life span are the themes more prominently displayed. They become significant in the lives of pre-adolescents and become increasingly important with the youngsters' emergent adolescence. They begin to fade in late adolescence, and in adulthood they become integrated into the personality and lifestyle. Their moment is over; their impact on adolescence, however, influences adulthood and beyond.

**Psychovector Love Scale and its Differentiability.** OLIVER C.S. TZENG AND ROBERTA SCHLISSMANN, Department of Psychology, Indiana University-Purdue University at Indianapolis, Indianapolis, Indiana 46223. —The concept of love has been the central issue in human communications and interpersonal dating behaviors. However, as to its nature and determinants, our society still has little insight beyond what have been written by poets and novelists. Although many attempts have been made to pursue scientific knowledge of love in the research community, there still exists numerous questions unanswered, and controversies unresolved.

This study conducts a comprehensive evaluation of the issues in the theories and measurements of love relationships. As a result, a process-oriented measurement scale, called Psychovector Love Scale, was developed. Based on the combinations of three behavioral signals (retreat—approach—attack) and four primordial dispositional processes (mobilization, unification, affinity and variety), twelve basic emotions were constructed to measure diverse situational encounters between two people. Empirical data were collected from over 600 adults at five different levels of interrelationships. Inter-group comparisons resulted in significant patterns of interactive dynamics and prospects of future behaviors. The utilities of this development were discussed in the realm of various counseling and psychotherapeutic purposes.

**Orwell's 1984, Skinner's Walden III, Marx' Classless Society and other Utopias: An Exploration of Human Expectation and the Psychological Factors in a "Perfect Society."**

JOHN M. VAYHINGER, 1235 Favorite Street, Anderson, Indiana 46013. —The infantile expectation in the early infant of control over one's environment and the hope a human Eden or heaven on earth or a perfect political society is wide spread among societies and writers. With the growing possibility of a control of behavioral environment (family structure, educational in-put, media and literature manipulation), of chemical control of emotions, and the political control of groups, cultures are experimenting with various forms of "utopias," and control over individual's lives from 'womb to tomb.'

From Walden II to Beyond Freedom and Dignity, B.F. Skinner proposed schemes to implement a society without hunger, oppression, poverty, competition, frustration or uneven distribution of the products of civilization and community.

In the Marxist-Leninist countries, classical conditioning has been applied through Pavlovian Institutes, political and economic control with various effectiveness in making "The New Soviet Man" and the "New Chinese Man."

In literature Orwell warned (or predicted) a totalitarian society for England where Big Brother Is Watching You through telescreens, where 'war is peace,' 'freedom is slavery,' 'ignorance is strength,' and where Newspeak has eliminated the possibility of even thinking independently and individual action, especially what is known in the scientific community as accuracy in research.

This presentation will explore the use of classical and operant conditioning in these three Utopias, (1) positive fictional (Walden II), (2) politically repressive (Marxist-Leninist theory in Russia and China), and (3) negative fictional ("1984").

**Personality Types and Perceptual-motor Performance.** ROGER WARE AND CHARLES YOKOMOTO, School of Science and Engineering, Indiana University-Purdue University at Indianapolis, Indianapolis, Indiana 46223.—Voluntary student participants were administered the Myers-Briggs Type Indicator to assess their personality type, and subsequently performed the Mirror Tracing Task over three consecutive trials. Previous results using only one trial were not supported, but new findings emerged. Individuals with a sensing (S) preference have significantly longer overall performance time than individuals with intuitive (N) preference. Individuals with a thinking preference (T) have shorter performance times on the first trial but slightly longer performance times on the second and third trials than individuals with a feeling preference (F). Similar results occurred with errors and error time. Previous research suggesting that individuals with an NT preference are somewhat brighter and quicker is supported, but the present results also suggest that individuals with SF preferences appear to catch up over time, at least on learning a new perceptual-motor task.

