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EXPERIMENTAL STUDIES OF HUMAN CROWDING:

A TEST OF TWO MODELS.

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ABSTRACT

Following a review of the history of human crowding the attributional arousal model of crowding was examined. This model views the experience of crowding as spatially induced arousal, attributed to the closeness of others. The model introduces the possibility of misattribution of arousal source leading to a reduction in perceived crowding. A salience hypothesis was developed in order to account for the ease with which misattribution was predicted to occur.

Study One attempted to test the salience hypothesis. The study varied two levels of distance and four levels of information concerning arousal source in attempting to partially replicate one of the key studies on which the attributional arousal model is based. The 320 subjects were run in groups of five.

The distance manipulation was effective in inducing crowding in subjects seated at close distances. However, the predicted levels of increased arousal failed to emerge. This unexpected result precluded any test of the salience hypothesis, since increased levels of arousal are necessary in order for causal search and misattribution to occur. This result showed that the experience of crowding may occur independently of arousal.

The information expectancy model was developed to explain the results from Study One. This model assumes invasion of personal space is necessary for the

experience of crowding, and also that confirming of expectations will reduce the impact of crowding. Study Two aimed to clarify the role of information and expectations in the context of experimental crowding. A further aim was to gather psychometric data on the efficacy of measurement scales for the concepts of arousal and crowding.

Study Two varied three levels of spatial information and two levels of nonspatial information. The 240 subjects were run in groups of five and all were seated at close interpersonal distance.

Results showed the measurement scales possessed high levels of internal consistency. However, accurate spatial information failed to reduce the impact of crowding and this result calls into question the utility of pre-exposure information. Disconfirmed nonspatial expectations increased levels of reported crowding suggesting that accurate information concerning the activities which occur while in crowded conditions is important. Sex differences emerged and these contributed to the view that women may be more adaptable than men under conditions of reduced interpersonal distance.

The results of these studies were considered in terms of their implications for the models of crowding. Suggestions for further research were discussed. These included examining the relationship between spatial invasion and crowding, and further considering the impact of information on the experience of crowding.

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