OBJECTIVES: The major objectives of this pilot project are to investigate: (1) The effects of nicotine on the mood and other subjective experience of smokers; (2) the reinforcing value of nicotine in this population; (3) the relationship between the reinforcing value of nicotine and its effect on subjective experience. Approximately 40 smokers are being recruited in this pilot.

RESEARCH PLAN: This project is utilizing a 2 (high vs. low neuroticism) x 2 (stressful condition vs. nonstressful condition) x 2 (very low nicotine-yield cigarette vs. medium nicotine-yield cigarette) design to investigate the mood effects and reinforcing value of nicotine. Neuroticism level and cigarette condition (random assignment) are between-groups factors. Stress condition is a within groups factor. Volunteers and the research assistant are blind to cigarette assignment. We are hypothesizing that smoking will have greater mood effects and reinforcing value in a stressful vs. nonstressful situation. We are also hypothesizing that smoking will have greater mood effects and reinforcing value for smokers high in neuroticism. Finally, we are hypothesizing a 3-way interaction between the 3 study factors such that the mood effects and reinforcing value of smoking will be greatest among "high neurotic" smokers in the stressful condition who smoke the medium nicotine-yield cigarette. In addition, we are hypothesizing that the reinforcing effects of smoking are mediated by its mood effects.

METHODOLOGY: Volunteers attend one baseline assessment and two laboratory sessions. In the baseline session, volunteers sign a consent form and complete questionnaires about their smoking and mood and complete a personality inventory. They also become familiar with the procedure we use for assessing the reinforcing value of smoking in the two laboratory sessions. In sessions 2 and 3, volunteers smoke one cigarette, i.e., either a medium nicotine-yield or very low nicotine-yield cigarette, depending on random assignment. Only the stress factor varies between sessions; all other procedures are the same. In one session, assessments of the mood effects and reinforcing value of smoking occur after a stressful mood induction. In the other session, these assessment occur after volunteers sit quietly. The stress induction involves asking volunteers to take 20 minutes to plan and then deliver a speech about what they do not like about their personal appearance. However, as we are only interested in the mood effects and reinforcing value of smoking under conditions of "anticipatory anxiety," volunteers do not, in fact, give the speech. This is explained to them in a debriefing at the end of the session.

FINDINGS: Thirty nine volunteers have completed the protocol. Data have not yet been analyzed.