

dislodging the i.v. cannula. Other procedures were used to help maintain catheter patency, and Gerry was indeed able to support functional i.v. catheters in some animals for the extensive (and highly atypical) length of time required in this study. Substantial patience and perseverance were necessary, with numerous catheters losing patency before the end, requiring that additional animals be implanted and tested.

The dissertation itself is well written in a careful and scholarly manner. The literature review is extensive and thoughtful, and reflects a solid command of the research in the diverse fields that form the background for the work of the dissertation. The methods and results are clearly presented, the statistical analyses were carefully and thoroughly conducted (and in some instances were rather innovative), the data and their interpretation are exciting, and the discussion sections meaningfully relate the results with the extant clinical and experimental literature.

Experiment 1 of this dissertation is the first to examine cocaine self-administration during pregnancy in an animal model, and the results demonstrate that there is a marked decline in the reinforcing efficacy of cocaine during the later stages of pregnancy. Although one must be cautious in directly relating results obtained from basic animal research to the clinical situation, nevertheless these findings have important potential clinical significance. Although there have been some reports of a decline in drug abuse during the later part of pregnancy in humans, there has been speculation as to whether the decline merely reflects sociological factors (peer pressure to abstain from drug use when obviously pregnant) or rather whether it is a function of hormonal changes associated with the physiological status of pregnancy. The data from Experiment 1 of Gerry's dissertation provide convincing evidence that physiological factors may be at least partially responsible for this decline. In Experiment 2 of the dissertation, Gerry conclusively demonstrates that prenatal cocaine exposure alters the later reinforcing efficacy of cocaine in animals. These findings support the tentative notion that prenatal exposure to drugs of abuse such as cocaine may increase later drug abuse liability. Additional potential clinical implications of both of these important sets of results are further discussed in the dissertation.

In summary, in all respects, I think that the dissertation of Gerald Hecht is most fitting for a Distinguished Dissertation Award. The dissertation is well written, the literature review and discussion impressive, the experiments technically sophisticated and carefully conducted, and the data convincing and important. I predict that the publications arising from this dissertation will be highly cited and very influential for the fields of neurobehavioral teratology and behavioral pharmacology, as well as for research examining antecedents to drug abuse. Gerald Hecht's dissertation is a beautiful piece of work and I am honored to be able to nominate it for a Distinguished Dissertation Award.