

anesthetic technique for their model, SNP requirements might have been consistent with those used clinically.

ARNOLD J. BERRY, M.D.  
*Assistant Professor of Anesthesiology  
Department of Anesthesiology  
Emory University School of Medicine  
1364 Clifton Road N.E.  
Atlanta, Georgia 30322*

Anesthesiology  
53:265, 1980

*In reply:* In our cat studies describing the effects of sodium nitroprusside on ICP, pentobarbital was used exclusively as our sedative-hypnotic. Inspired gases included room air or variations of oxygen and carbon dioxide tensions. Baseline blood pressures were high and, consequently, excessive doses of nitroprusside were also high. In applying the model to the clinical setting, Doctor Berry's point is well taken: excessive doses of sodium nitroprusside are reduced when combined with adequate general anesthesia. However, it is worth mentioning two practical circumstances in which higher doses and the described administrative caution may pertain: first, in the ICU patient with Cushing's triad of elevated ICP, elevated blood pres-

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## The Consequences of Not Applying Sensory Decision Theory

*To the Editor:*—The recent editorial, "On the Possible Painful Consequences of Misapplying Signal Detection Theory," by Ominsky,<sup>1</sup> provides a clear description of the sensory decision theory model as applied to pain perception. He correctly points out that the model provides more information about the response to painful stimulation than does the traditional psychophysical threshold measure. We concur, particularly since the traditional pain threshold may also be computed from sensory decision data.

However, he concludes his editorial by wondering whether this added information will predict the clinical usefulness of analgesic drugs, or will be a hindrance or even misleading. By addressing only the problem of analgesics and possible changes in but one of the parameters of sensory decision theory, discriminability, the reviewer has skirted the major contribution of our study.<sup>2</sup> We were particularly concerned with the combined use of the discriminability and the pain

## REFERENCES

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(Accepted for publication April 3, 1980.)

sure, and reduced heart rate who is perhaps not a candidate for general anesthesia but needs blood pressure control and, second, in a similar patient with suspected but unmeasured intracranial hypertension who must undergo anesthetic induction (with endotracheal intubation) but also needs prior blood pressure control. In both circumstances the effective doses of sodium nitroprusside will be predictably higher than those in the comparable anesthetized state.

M. LOU MARSH, M.D.  
*12916 Via Latina  
Del Mar, California 92014*

(Accepted for publication April 3, 1980.)

report criterion indices to evaluate drugs such as diazepam that may possess both mood-altering and analgesic properties. Our study demonstrated that the increased morphine threshold was caused by a combination of reduced discriminability (the neurosensory component) and raised pain report criterion (the psychological component). In contrast, the increased diazepam threshold was largely due to a change in the pain report criterion. However, there also was a decrease in discriminability, which was masked in the threshold measure.

The discriminability measure P(A) is independent of the report of "pain." Thus, sensory decision theory represents the sole approach to the study of those drugs which influence both the subject's mood and his pain sensation. It is well known that a decrease in anxiety will decrease the incidence of pain reports. Thus, a raised pain threshold following the administration of an antidepressant or an