after ingestion. GLESER *et al.* (1965) gave 20 mg of chlordiazepoxide and a placebo control to groups of delinquent boys. They observed diminished anxiety in boys who received the drug after only 40 min as measured by an analysis of verbal samples. No measure of sedation was made.

A second possibility is that anxiety induced by the autopsy film is not a suitable vehicle to demonstrate tranquilizing effects. This would agree with Chessick's study cited above and with other reports which indicate that tranquilizers may not be effective in anxiety induced by a ferriswheel ride (LATIES, 1959) or by dental surgery (SHERMAN *et al.*, 1964). Clinical drug trials with psychiatric patients generally aim to treat a more chronic or background anxiety level and it may be that tranquilizers act only on such "pathological" anxiety and do not impair normal, appropriate emotional responses. However, since all these observations were made after a single dose, the possibility of inadequate medication cannot be ruled out.

Several aspects of the experimental design deserve mention: To demonstrate a tranquilizing effect of chlordiazepoxide, it was reasonable to expect that this effect would be seen only *after* the autopsy film when *S*s were reacting to an acute anxiety stimulus. This would support the hypothesis that the film experience served to induce a state susceptible to modification by the medication. However, as Fig. 2 clearly shows, tension-anxiety scores are not affected by the medications either before or after the film. On the other hand we had no reason to believe that the film would make *S*s either more or less susceptible to a sedative effect. It can be seen in Fig. 3 that on the fatigue factor, where the two drug groups were significantly more fatigued than the placebo group, this difference was just as great before the film as after. The film served to reduce fatigue by the same amount in all groups.

Had any drug effects first emerged after the film, it would be necessary to repeat the experiment with an additional control: comparing an affectively neutral film with the anxiety-inducing film. This comparison would specifically establish the role of the anxiety film as a necessary condition for a medication effect. In this experimental situation the anti-anxiety effect of chlordiazepoxide, demonstrated clinically in psychiatric outpatients, was not found in our group of normal subjects.

Summary

Normal college students were given a single dose of chlordiazepoxide, secobarbital or placebo 85 min before being shown an anxiety-inducing film. Measures of sedation and of subjective anxiety were taken before and after the film. Results indicate that chlordiazepoxide and secobarbital had a measurable sedative action compared with placebo. Neither medication showed a significant anti-anxiety effect.