

September 6, 1972

M E M O R A N D U M

TO: A. M. Freedman, M.D.
FROM: Max Fink, M.D.
SUBJECT: Effects of Chronic Methadone Intake on Performance

The impact of chronic drug use on performance is a recurrent ^{theory} and ~~throwing~~ question. For most drug evaluations, various issues have come to the fore which raise doubts as to the generalizability of the task performance for the following reasons:

- (1) Sample: usually well motivated, specially selected subjects participate.
- (2) Task: usually artificial in relation to real life, often too simple.
- (3) Setting: examination is in air conditioned, sterile environment; boredom and fatigue as factors are excluded; distractions and competing stimuli are excluded.

A. M. Freedman, M.D.

September 6, 1972

(4) Dosage: drug dosage is well controlled, in contrast to real life, where intake is haphazard and irregular, and overdose and withdrawal are real factors.

For example, some recent studies of driving performance with cannabis have been criticized for these reasons; and the Swiss (Kielhalz) have undertaken "field" tests.

Gordon's studies contrast with the earlier reports of Isbell (1948). The conclusions (that methadone improves performance) are unconvincing since the issues (1-4) above apply.

As an aside, Gordon has presented EEG data which contrasts with our findings: he claims methadone normalizes the EEG; we find methadone slows ^{MEAN} ~~near~~ frequency, produces bursts, etc.

Conclusion: (1) The Gordon data is insufficient to support any contention.

(2) Performance tests, under field conditions, should be encouraged and accident rates, absenteeism, and % acceptable products used as indices to evaluate the questions raised by the Commission.