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THE PHENOMENOLOGY OF ACUTE THC-PSYCHOSIS

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It has long been known that cannabis can elicit an acute psychotic reaction. Recent work shows that, of the 60 cannabinoid molecules in the plant, delta-9-tetrahydrocannabinol is responsible for the central effects of cannabis. Here we aimed to investigate, in more detail, the psychological effects of synthetic intravenous THC in healthy subjects. Over 2 experimental sessions, participants (N=22) were administered 2.5mg IV THC or placebo under randomised, double-blind conditions. Psychological reactions were assessed using standard rating instruments and a battery of cognitive tests was completed.

Following THC, there was a significant increase in self-rated and observer-rated positive psychotic symptoms which were highly correlated ($r=0.62$, $p=0.001$). Phenomena centered on de-synchronisation of self-agency (*ipseity disturbance*) and hypersalience/paranoia. Participants also reported a significant increase in negative symptomatology under THC conditions, which was not explained by sedation. Finally, working memory/executive functioning was markedly and consistently impaired by THC.

Here we provide further evidence that THC can elicit an acute psychotic reaction in a proportion of healthy subjects. Acute THC-psychosis elicits positive, negative and cognitive symptoms. Compared with other drug models THC recreates symptomatology across 3 major dimensions of schizophrenic psychosis without sedation/clouding of consciousness. Here we also present preliminary evidence that the molecule cannabidiol (CBD) inhibits THC-elicited positive symptoms. Current work in our laboratory is exploring the underlying mechanisms.