



RESILIENCE TO SOCIAL STRESS EFFECTS: DEPRESSION AND COCAINE REWARD

Raúl Ballestín Hinojosa, Carmen Ferrer Pérez, Marta Rodríguez Árias

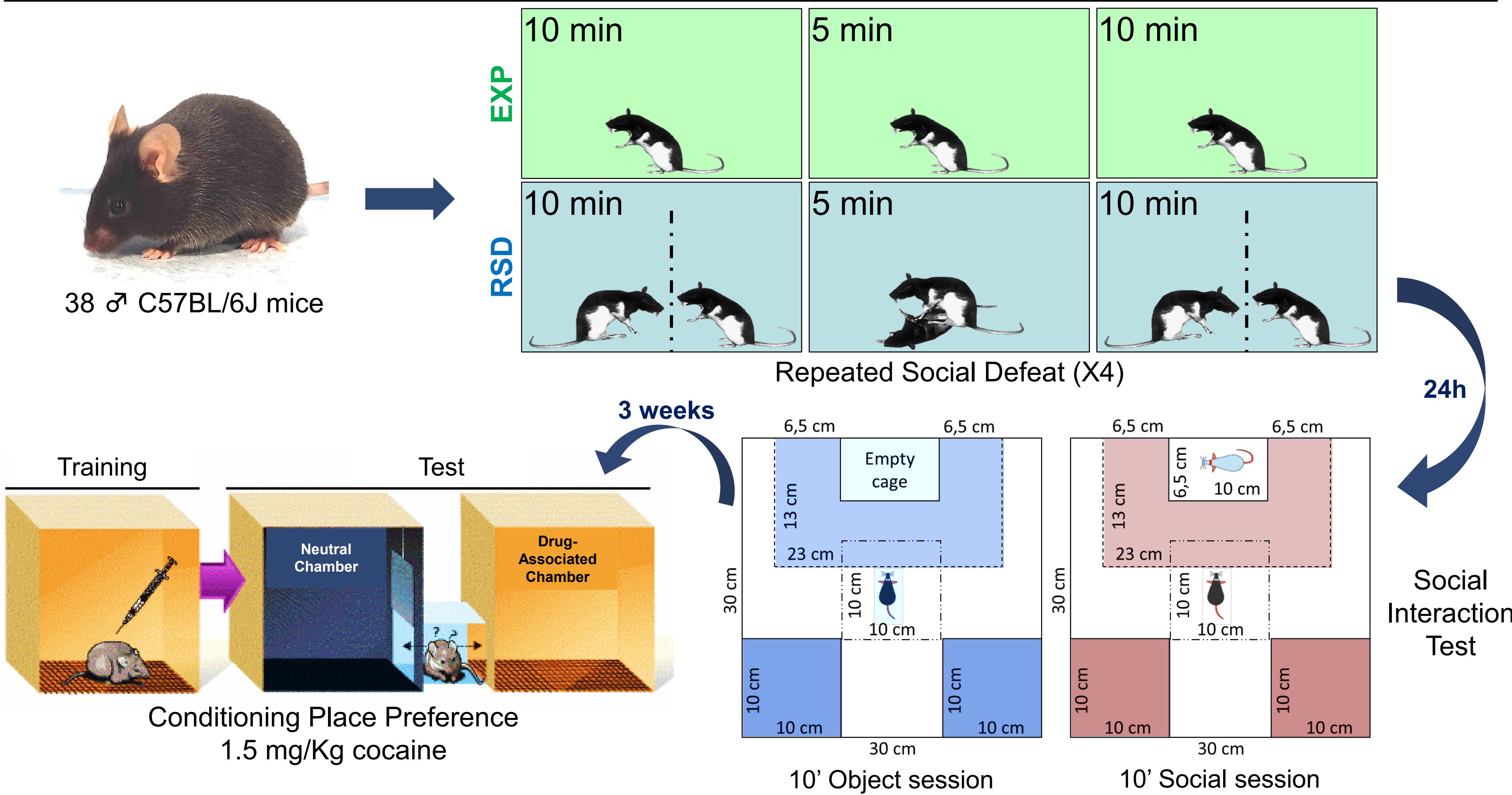
Unidad de Investigación Psicobiología de las Drogodependencias, Dpto. de Psicobiología, Facultad de Psicología, Universitat de València, Avda. Blasco Ibáñez 21, 46010, Valencia, España

INTRODUCTION

Exposure to social stress has been related with increase in the problems associated with cocaine use. Animal models, especially social stress procedure, have demonstrated that stressed rodents consume higher amounts of cocaine (Montagud-Romero *et al.*, 2018). However, in both humans and rodents, not all subjects exposed to social stress will suffer from depression or drug addiction. There are resilient individuals who do not show physiological or behavioral imbalance after a stressful experience, although other parameters such as an increase in corticosterone levels affected to the whole population.

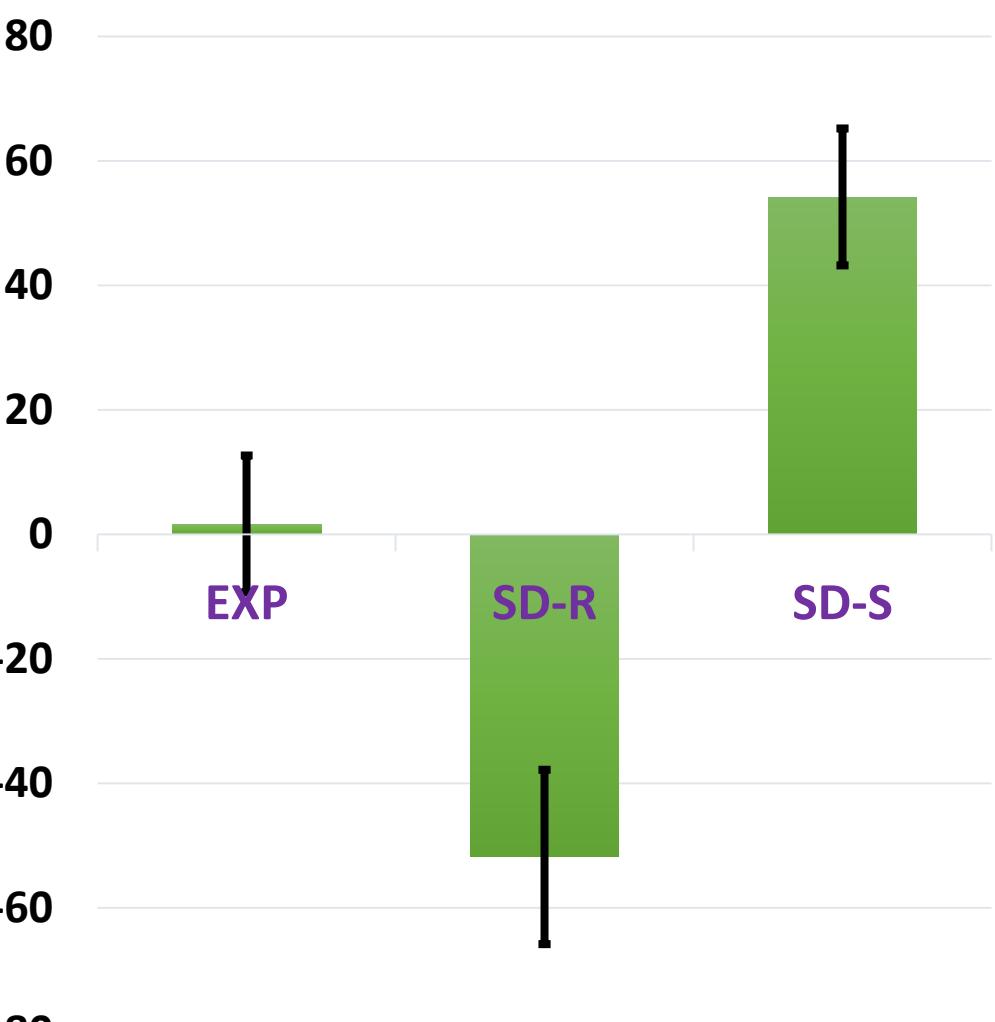
Objective: The present study focuses on assessing whether resilient subjects to the well-known increased in cocaine reward after exposure to social defeat, would also be resilient to depressive-like behaviors.

METHODOLOGY

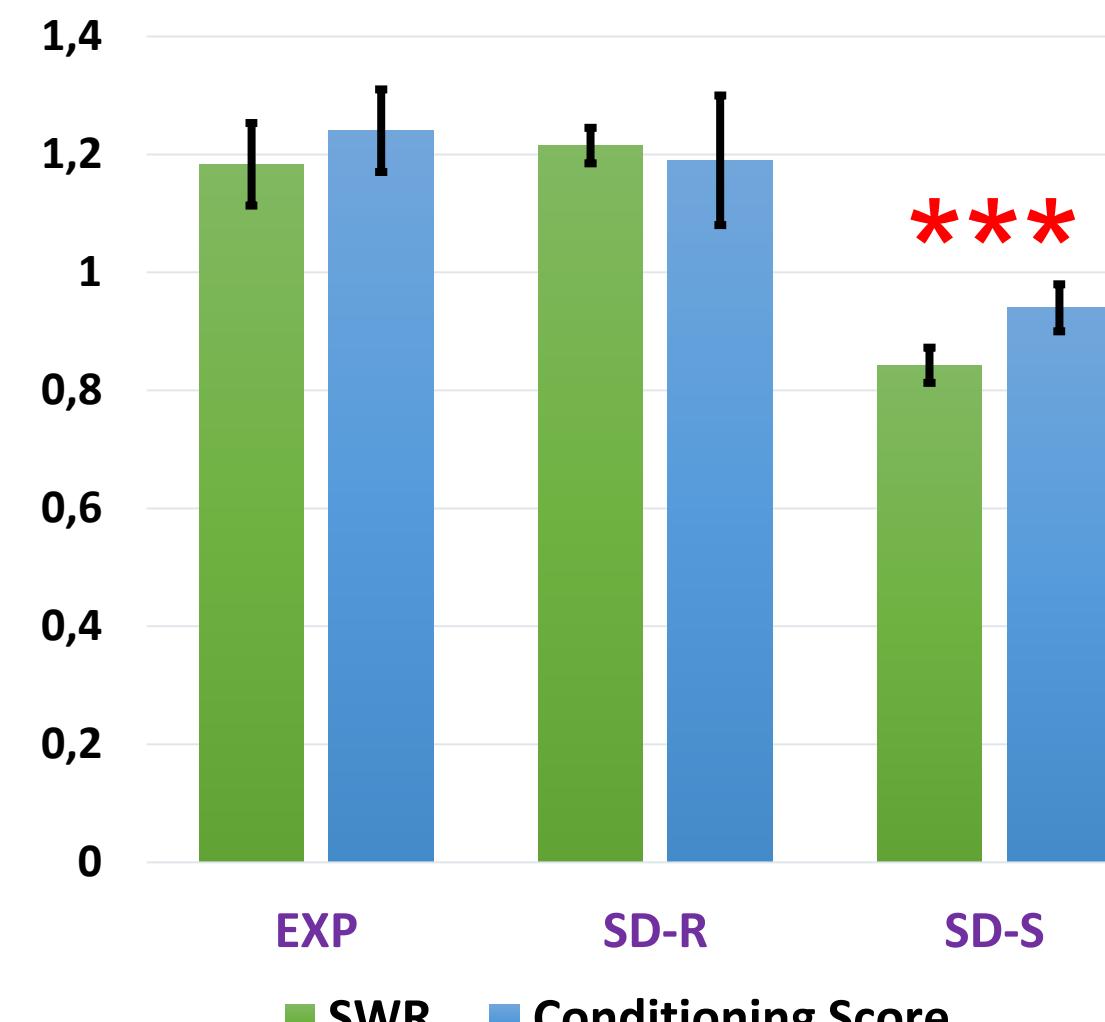


RESULTS

Conditioning Score



Social Withdrawal Ratio



We observed that susceptible mice that developed preference for cocaine, obtain low values in the social withdrawal ratio. Conversely, those resilient also showed SWR values higher than 1. Therefore, our results suggest that our method of characterized animals by the SWR can accurately predict which animals are going to be sensitive to the reinforcing effects of cocaine after exposure to social stress.

This work points out that animals undergoing social stress that develop depressive-like behaviors will be more sensitive to the reinforcing effects of cocaine.

CONCLUSION