

Socially conditioned flavor preferences with fluids: Transfer with solid foods, palatability, and testing constraints

Por: [Figueroa, J](#) (Figueroa, Jaime)^[1]; [Gasalla, P](#) (Gasalla, Patricia)^[3]; [Muller, M](#) (Muller, Maximiliano)^[2]; [Dwyer, D](#) (Dwyer, Dominic)^[3]

[Ver número de ResearcherID y ORCID de Web of Science](#)

PHYSIOLOGY & BEHAVIOR

Volumen: 223

Número de artículo: 112976

DOI: 10.1016/j.physbeh.2020.112976

Fecha de publicación: SEP 1 2020

Tipo de documento: Article

[Ver impacto de la revista](#)

Abstract

In two experiments, the social influence on choosing between two novel diets was analyzed. In Experiment 1, a group of rats (demonstrators) ingested a novel flavor cue presented in powdered food or in a 4% sucrose solution. Afterwards, demonstrators interacted with a group of observer rats for 30 minutes. Preferences for the cue flavor and another flavor were tested in observers using a two-choice test in the same or in the opposite substrate (solid/liquid) as their demonstrators. When tested with solid foods, observers displayed higher intake of the flavor consumed by the demonstrators, regardless of whether the demonstrators had consumed it as a solid or liquid. However, when observers were tested with solutions, there was no demonstration of the same preference. Experiment 2 focused on solutions, presenting them at test either with the flavor as a water solution alone, or as a solution plus an aerosol presentation. In addition, a single-cue testing procedure was used to allow examination of the palatability (assessed through the analysis of licking behavior) of the test solutions. Under single-cue testing procedures with solutions, observer rats did consume more of the flavors previously consumed by the demonstrator animals, but there was no effect of social learning on the palatability of the test flavors. These results suggest that socially conditioned flavor preferences can be reliably observed with fluid solutions, will transfer between different substrates, and affect consumption to a greater degree than palatability. However, future experiments need to be performed to confirm some of these suggestions.

Palabras clave

Palabras clave de autor: [Context](#); [Flavor palatability](#); [Fluids](#); [Rats](#); [Social Learning](#)

KeyWords Plus: [RATS RATTUS-NORVEGICUS](#); [NORWAY RATS](#); [ACQUIRED INFORMATION](#); [DIET](#)

[PREFERENCE](#); [MICROSTRUCTURE](#); [TRANSMISSION](#); [ENHANCEMENT](#); [MOVEMENTS](#); [RELIANCE](#); [LICKING](#)

Información del autor

Dirección para petición de copias:

Pontificia Universidad Católica de Chile Pontificia Univ Católica Chile, Fac Agron & Ingn Forestal, Dept CienciasAnim, Avda Vicuna Mackenna 4860, Santiago 7820436, Chile.

Dirección correspondiente: Figueroa, J (corresponding author)

- + Pontificia Univ Católica Chile, Fac Agron & Ingn Forestal, Dept CienciasAnim, Avda Vicuna Mackenna 4860, Santiago 7820436, Chile.

Direcciones:

- + [1] Pontificia Univ Católica Chile, Fac Agron & Ingn Forestal, Dept CienciasAnim, Avda Vicuna Mackenna 4860, Santiago 7820436, Chile
- + [2] Univ Chile, Fac CienciasVet & Pecuarias, Dept Fomento Prod Anim, Santiago 8820000, Chile
- + [3] Cardiff Univ, Sch Psychol, Cardiff CF10 3AT, Wales

Direcciones de correo electrónico: figueroa.jaime@uc.cl

Financiación

Entidad financiadora Mostrar más información	Número de concesión
Chilean Government	11140576
Leverhulme Trust	RPG-2014-342

[Ver texto de financiación](#)

Editorial

PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND

Información de la revista

- **Impact Factor:** [Journal Citation Reports](#)

Categorías / Clasificación

Áreas de investigación: Psychology; Behavioral Sciences

Categorías de Web of Science: Psychology, Biological; Behavioral Sciences

Información del documento

Idioma: English

Número de acceso: WOS:000550576800018

ID de PubMed: 32473157

ISSN: 0031-9384