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Advanced Robotics
Volume 33, Issue 7-8, 18 April 2019, Pages 325-337

Assessing the effect of persuasive robots interactive social cues on users' psychological reactance, liking, trusting beliefs and compliance

(Article) [\(Open Access\)](#)

Ghazali, A.S.^{a,b} ✉, Ham, J.^c, Barakova, E.^a, Markopoulos, P.^a 👤

^aDepartment of Industrial Design, Eindhoven University of Technology, Eindhoven, AZ, Netherlands

^bDepartment of Mechatronics Engineering, International Islamic University Malaysia, Kuala Lumpur, Malaysia

^cDepartment of Industrial Engineering & Innovation Sciences, Eindhoven University of Technology, Eindhoven, AZ, Netherlands

Abstract

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Research in the field of social robotics suggests that enhancing social cues in robots can elicit more social responses in users. It is however not clear how users respond socially to persuasive social robots and whether such reactions will be more pronounced when the robots feature more interactive social cues. In the current research, we examine social responses towards persuasive attempts provided by a robot featuring different numbers of interactive social cues. A laboratory experiment assessed participants' psychological reactance, liking, trusting beliefs and compliance toward a persuasive robot that either presented users with: no interactive social cues (random head movements and random social praises), low number of interactive social cues (head mimicry), or high number of interactive social cues (head mimicry and proper timing for social praise). Results show that a persuasive robot with the highest number of interactive social cues invoked lower reactance and was liked more than the robots in the other two conditions. Furthermore, results suggest that trusting beliefs towards persuasive robots can be enhanced by utilizing praise as presented by social robots in no interactive social cues and high number of interactive social cues conditions. However, interactive social cues did not contribute to higher compliance. © 2019, © 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

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Prominence percentile: 99.423 ⓘ

Author keywords

Human- Robot interaction (HRI) interactive social cues persuasive robot social responses

Indexed keywords

Engineering controlled terms: [Robotics](#)

Engineering uncontrolled terms: [Human robot Interaction \(HRI\)](#) [Laboratory experiments](#) [Persuasive robots](#) [Psychological reactances](#) [Social cues](#) [social responses](#) [Social robotics](#) [Trusting beliefs](#)

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Funding details

Funding sponsor	Funding number	Acronym
International Islamic University Malaysia		IIUM
Ministry of Higher Education, Malaysia		MOHE
International Islamic University Malaysia		IIUM
Ministry of Higher Education, Malaysia		MOHE

Funding text #1

We wish to express our gratitude to the participants who took part in this study and grant funding from International Islamic University Malaysia and Ministry of Higher Education Malaysia.

Funding text #2

This work was supported by International Islamic University Malaysia; Ministry of Higher Education, Malaysia.

ISSN: 01691864

CODEN: ADROE

Source Type: Journal

Original language: English

DOI: 10.1080/01691864.2019.1589570

Document Type: Article

Publisher: Robotics Society of Japan

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🔍 Ghazali, A.S.; Department of Industrial Design, Eindhoven University of Technology, Eindhoven, Netherlands;

email:aimighazali@iiuum.edu.my

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