

background

Biologization is a form of **dehumanization** that employs **metaphors linked to disease**. Several research projects (e.g., McGuire & Canales, 2010; Valtorta et al., 2019a) indicated that this dehumanizing representation is often used to describe immigrants and foreign people. However, very little is known about the outcomes triggered by the depiction of others as contagious entities. The present study explores whether **indirect aggression** (i.e., a type of harm that distances individuals or groups by diminishing their social worth through exclusion) might be considered a **consequence of biological dehumanization**.

method

1 experimental manipulation (between-subjects design)

201 participants

110 females, 90 males, 1 non-binary
 $M_{age} = 35.32$, $SD = 13.00$; 18-70 y/o

Participants were asked to read a text describing a fictitious group (i.e., *Vabals*) with biological metaphors (e.g., “A *Vabal* is a typical **parasite**”) or with negative but non-dehumanizing expressions (e.g., “A *Vabal* is a typical **villain**”).

2 survey

Dehumanizing perceptions/manipulation check (8 items; Valtorta et al., 2019b)

“*Vabals* can be considered viruses/animals”; from 1 to 5; $\alpha_{biologization} = .95$, $\alpha_{animalization} = .87$.

Intentions of direct and indirect aggression (20 items; Richardson & Green, 2003)

“I would purposefully leave *Vabals* out of activities” for indirect aggression; from 1 to 5; $\alpha = .95$.

“I would threaten to hit or throw something at *Vabals*” for direct aggression; from 1 to 5; $\alpha = .98$.

Social Exclusion Bench Tool (SEBT; Mazzoni et al., 2021)

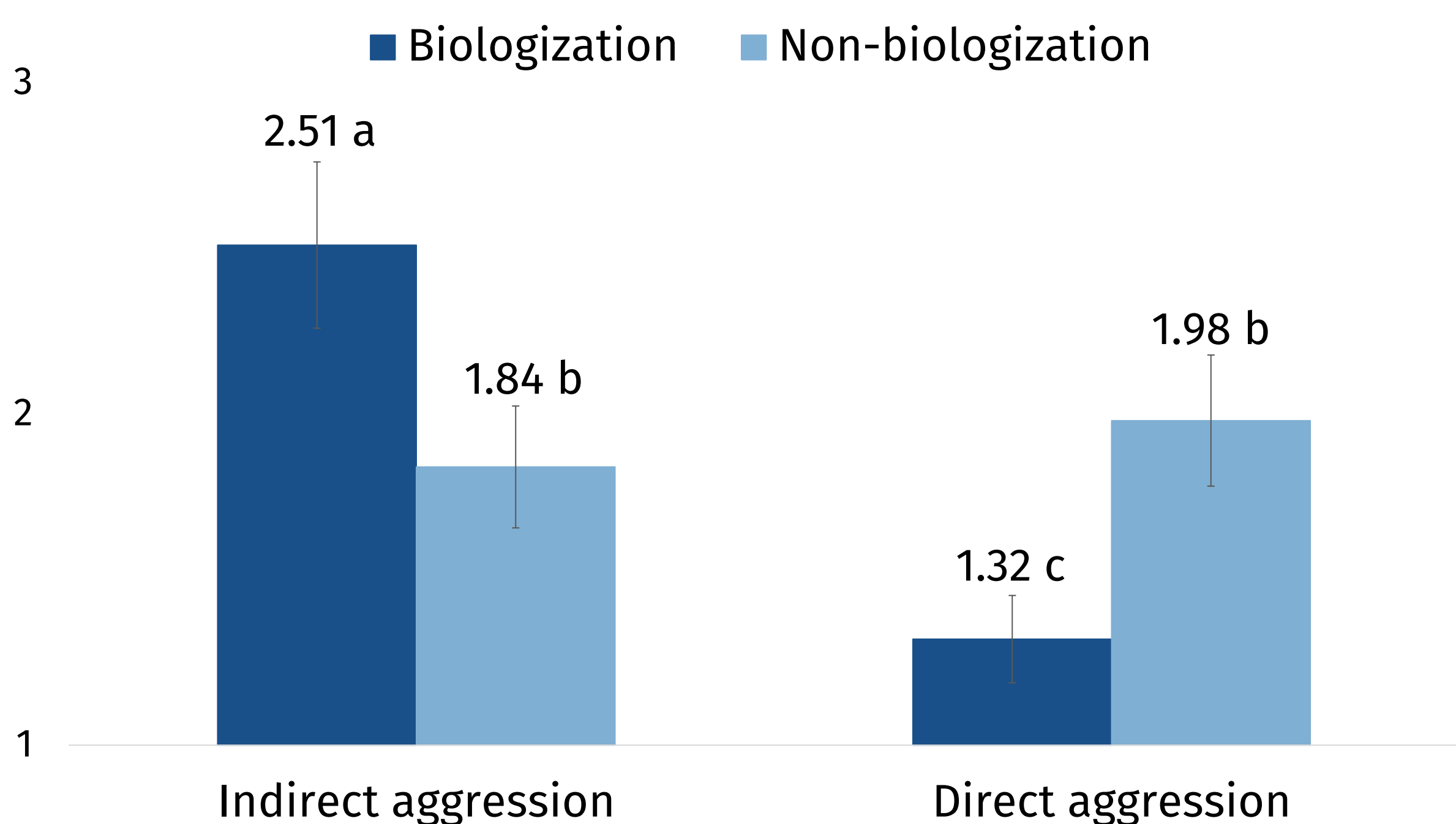
Graphical tool recording the coordinates of the position taken by participants in a scene (e.g., a picture depicting a *Vabal* at the bus stop), clicking on it.

results

Dehumanizing perceptions/manipulation check

Participants in the biologization condition perceived *Vabals* as more similar to viruses ($M = 3.52$, $SD = 1.36$) than those in the non-biologization condition ($M = 1.70$, $SD = 0.99$). Furthermore, participants in the biologization condition perceived *Vabals* as more similar to viruses than to animals ($M = 1.74$, $SD = 0.78$), all $ps < .001$.

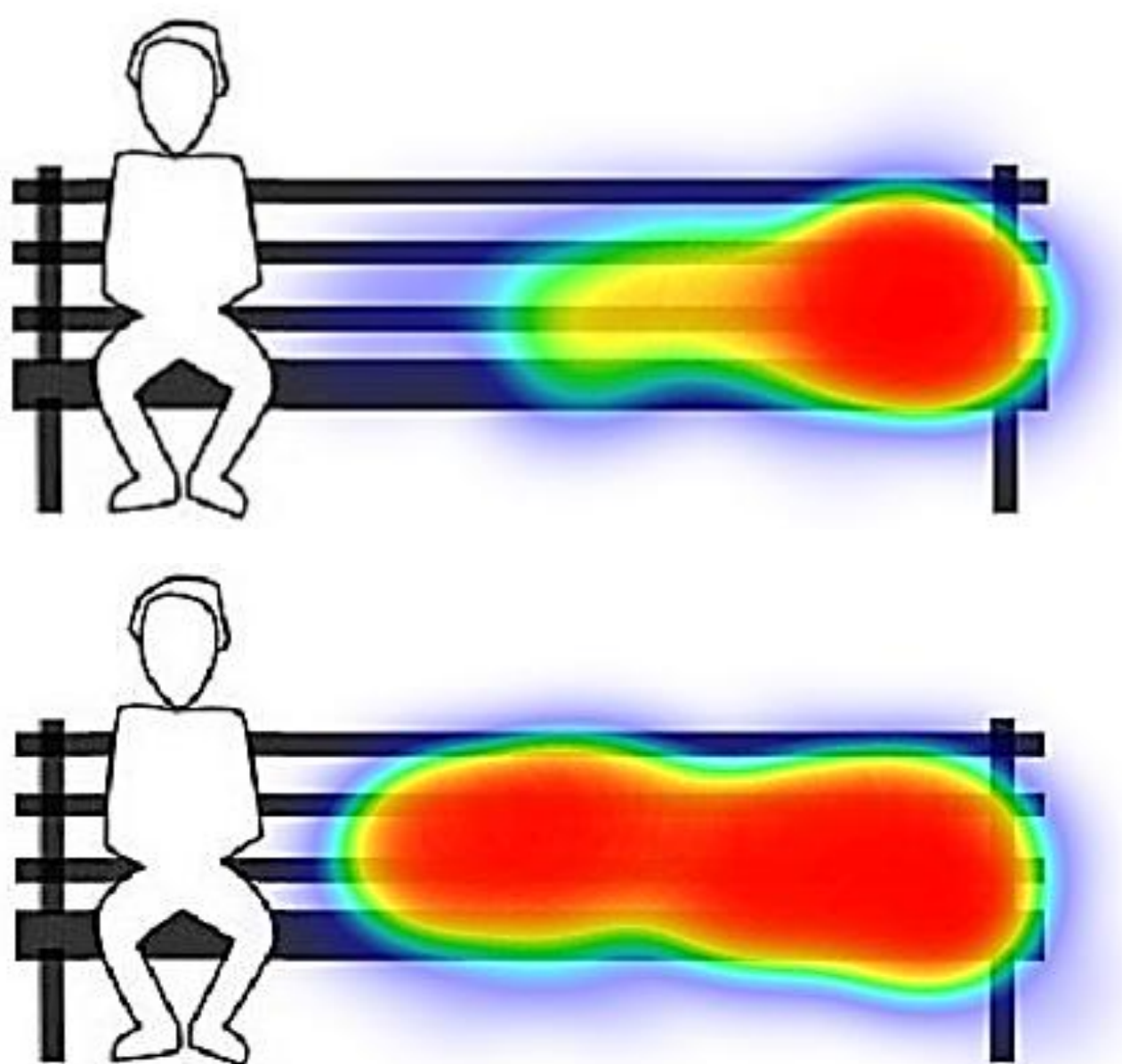
Intentions of direct and indirect aggression



Note: $a \neq b \neq c$. Interaction effect $F(1,199) = 37.35$, $p < .001$, $\eta_p^2 = 0.16$

Social Exclusion Bench Tool

The figure below is a *Vabal* waiting for the bus at the bus stop. Where would you sit waiting for the bus? Click on the point of the bench you would sit.



Biologization
 $M = 392.36$, $SD = 62.13$
(x coordinates measured in pixels)

Non-biologization
 $M = 349.68$, $SD = 67.09$
(x coordinates measured in pixels)

Main effect $F(1,199) = 21.88$, $p < .001$, $\eta_p^2 = 0.10$

conclusions

- This is the first study examining the **effects of language that dehumanizes others through biological metaphors**.
- Results demonstrate that **using biological metaphors leads to behaviors aimed at exclusion**.
- The tested association was also confirmed by a **visual tool** for assessing exclusion in terms of **physical distance**.

Mazzoni, D., Marinucci, M., Monzani, D., & Pravettoni, G. (2021). The Social Exclusion Bench Tool (SEBT): A visual way of assessing interpersonal social exclusion. *MethodsX*, 8, 101495.

McGuire, S., & Canales, M. K. (2010). Of migrants and metaphors: Disrupting discourses to welcome the stranger. *Advances in Nursing Science*, 33, 126-142.

Richardson, D. S., & Hammock, G. S. (2003). Defining direct and indirect aggression: The Richardson Conflict Response Questionnaire. *International Review of Social Psychology*, 16, 11-30.

Valtorta, R. R., Signorato, G., & Volpato, C. (2019a). Le immagini come armi di propaganda. La delegittimazione nei manifesti di Forza Nuova [Pictures as weapons. Delegitimization strategies in the visual propaganda of Forza Nuova]. *Psicologia Sociale*, 14, 259-280.

Valtorta, R. R., Baldissarri, C., Andrighetto, L., & Volpato, C. (2019b). Dirty jobs and dehumanization of workers. *British Journal of Social Psychology*, 58, 955-970.