

**Moral Judgment in Video Games:  
Effects of Medium, Moral Intuitions and Media-Based Empathy**

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### Abstract

Human morality is not only limited to the context of reality, but can also be applied to computer pixels and virtual worlds, such as video games (Tamborini et al., 2018; Weaver & Lewis, 2012). When playing, people embody their avatar, identify with it and its choices, and perceive other in-game characters as social beings (Biocca, 1997; Hartmann & Fox, 2021; Hartmann & Vorderer, 2010). Despite the technological advances in computer graphics, psychological research on moral judgment and decision-making still heavily rely on hypothetical text-based dilemmas (e.g., Clifford et al., 2015; Greene et al., 2001). For example, in the 'classic' trolley dilemma participants need to decide whether to sacrifice one life in order to save five others (Thomson, 1985). Although textual measures provide high experimental control, they have been criticized for lacking richness and contextual salience, thus reducing generalizability and external validity (Gilbert & Wilson, 2007; Patil et al., 2014). Furthermore, recent studies demonstrated that the medium that presents dilemmas (e.g., text vs. virtual reality) affects both moral judgments and choices (e.g., Francis et al., 2016; Patil et al., 2014). Therefore, the current study compares text- versus video-based moral dilemmas from a video game along a set of different moral foundations (cf. Haidt & Joseph, 2007). Furthermore, the complex relation between morality and empathy, which has not been fully clarified yet (Decety & Cowell, 2014), will be investigated as well. In summary, we hypothesize:

H1: Negative moral judgments and action-choices are more likely to occur when the moral transgression in question is presented as a video rather than a text.

H2: Both stronger endorsement of a moral intuition as well as higher media-based empathy predict more negative moral judgments and action-choices.

For this purpose we conducted an online study ( $N = 276$ ) that assessed, among other variables, the individual salience for five moral topics (MFQ30; Graham et al., 2011), media-based empathy (MbE; Happ & Pfetsch, 2016), and responses towards six randomly ordered moral transgression scenarios presented either as video or text (one for each moral foundation, with separate ones for personal and impersonal harm). After each scenario,

participants indicated whether they found the presented behavior morally acceptable (yes vs. no; moral judgement) and whether they would act the same way (yes vs. no; moral action-choice). Scenarios were taken from the video game *Red Dead Redemption 2* (film recordings for the video and transcriptions for the textual condition).

To investigate the influences of moral intuitions and media-based empathy on responses binary logistic regressions were calculated. Furthermore, chi-square tests were calculated to examine response differences regarding the two conditions (text vs. video). Results are interpreted and discussed against the theoretical background. Conclusions for the impact of medium and empathy on morality as well as implications for future research on (media-based) morality are presented.

*Keywords:* morality, decision-making, video games, media-based empathy, moral judgment

### References

- Biocca, F. (1997). The cyborg's dilemma: Progressive embodiment in virtual environments. *Journal of Computer-Mediated Communication*, 3(2), Article JCMC324.  
<https://doi.org/10.1111/j.1083-6101.1997.tb00070.x>
- Clifford, S., Iyengar, V., Cabeza, R., & Sinnott-Armstrong, W. (2015). Moral foundations vignettes: A standardized stimulus database of scenarios based on moral foundations theory. *Behavior Research Methods*, 47(4), 1178–1198.  
<https://doi.org/10.3758/s13428-014-0551-2>
- Decety, J., & Cowell, J. M. (2014). The complex relation between morality and empathy. *Trends in Cognitive Sciences*, 18(7), 337–339.  
<https://doi.org/10.1016/j.tics.2014.04.008>
- Francis, K. B., Howard, C., Howard, I. S., Gummerum, M., Ganis, G., Anderson, G., & Terbeck, S. (2016). Virtual morality: Transitioning from moral judgment to moral action? *PLoS ONE*, 11(10), Article e0164374.  
<https://doi.org/10.1371/journal.pone.0164374>
- Gilbert, D. T., & Wilson, T. D. (2007). Propection: Experiencing the future. *Science*, 317(5843), 1351–1354. <https://doi.org/10.1126/science.1144161>
- Graham, J., Nosek, B. A., Haidt, J., Iyer, R., Koleva, S., & Ditto, P. H. (2011). Mapping the moral domain. *Journal of Personality and Social Psychology*, 101(2), 366–385.  
<https://doi.org/10.1037/a0021847>
- Greene, J. D., Sommerville, R. B., Nystrom, L. E., Darley, J. M., & Cohen, J. D. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, 293(5537), 2105–2108. <https://doi.org/10.1126/science.1062872>
- Haidt, J., & Joseph, C. (2007). The moral mind: How five sets of innate intuitions guide the development of many culture-specific virtues, and perhaps even modules. In P. Carruthers, S. Laurence, & S. Stich (Eds.), *The innate mind* (pp. 367–391). Oxford University Press.

- Happ, C., & Pfetsch, J. (2016). Medienbasierte Empathie (MBE): Entwicklung eines Instruments zur Erfassung empathischer Reaktionen bei Mediennutzung. *Diagnostica*, 62(2), 110–125. <https://doi.org/10.1026/0012-1924/a000152>
- Hartmann, T., & Fox, J. (2021). Entertainment in virtual reality and beyond: The influence of embodiment, co-location, and cognitive distancing on users' entertainment experience. In P. Vorderer & C. Klimmt (Eds.), *The Oxford Handbook of Entertainment Theory* (pp. 716–732). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190072216.013.37>
- Hartmann, T., & Vorderer, P. (2010). It's okay to shoot a character: Moral disengagement in violent video games. *Journal of Communication*, 60(1), 94–119. <https://doi.org/10.1111/j.1460-2466.2009.01459.x>
- Patil, I., Cogoni, C., Zangrando, N., Chittaro, L., & Silani, G. (2014). Affective basis of judgment-behavior discrepancy in virtual experiences of moral dilemmas. *Social Neuroscience*, 9(1), 94–107. <https://doi.org/10.1080/17470919.2013.870091>
- Tamborini, R., Bowman, N. D., Prabhu, S., Hahn, L., Klebig, B., Grall, C., & Novotny, E. (2018). The effect of moral intuitions on decisions in video game play: The impact of chronic and temporary intuition accessibility. *New Media & Society*, 20(2), 564–580. <https://doi.org/10.1177/1461444816664356>
- Thomson, J. J. (1985). The trolley problem. *The Yale Law Journal*, 94(6), 1395–1415. <https://doi.org/10.2307/796133>
- Weaver, A. J., & Lewis, N. (2012). Mirrored morality: An exploration of moral choice in video games. *Cyberpsychology, Behavior, and Social Networking*, 15(11), 610–614. <https://doi.org/10.1089/cyber.2012.0235>