

The Variance of the Display Regarding the Free Riders Effect within Collectivist and Individualist Individuals

Cloudia Lu *

Chinese International School, Hong Kong, China

* Corresponding Author Email: Cloudia.lu@gmail.co

Abstract. This study aims to investigate the difference in the display of free-riding behavior in individuals with collectivist orientations compared to those with individualistic orientations. Free riding refers to benefiting from a public good or resource without contributing one's fair share towards its provision. Understanding the influence of collectivism and individualism on free-riding behaviors has important implications for social cooperation, resource management, and the design of incentive structures. In this natural experiment, the independent variable (individuals' relative individualism-collectivism tendencies) and the dependent variable (free-rider behavior) measured by the frequency of in-game behaviors that advance the objective—are compared to see if they have any causal correlations. A sample of participants was recruited and divided into collectivist and individualist groups according to their cultural orientation scale individualism-collectivism test results to conduct this experiment. The participants are mixed evenly into groups, including both collectivists and individualists, and then provided to build a house on Minecraft's gaming platform. Their behavior is measured through quantitative methods using a designed table to show their in-game contributions and the Likert scale to reflect their in-game behaviour. The prediction concludes that this experiment will reveal a set of data stating that possessing individualistic values decreases an individual's chances of free-riding in a group compared to collectivistic beliefs.

Keywords: Free riders, Collectivist, Individualist.

1. Introduction

As students, we often find ourselves working together within group settings; collaboration is a common skill that is displayed in various ways throughout our society in all communities. However, a notorious group of individuals universally raises scorn and disgust: free riders. The National Institute of Health defines free riders as “individuals who do not contribute to a collective project but still benefit from it.” From this phenomenon arises the question of how free riders form and what environments and traits encourage this behavior. To answer this question, we choose to observe and compare the behavior of individuals in a group task through the lenses of individualism and collectivism as all communities and individuals may somewhat fall upon the spectrum. We have thus developed the hypothesis that collectivist individuals are more likely to become free riders in comparison to individualist individuals [1, 2].

2. Definitions

2.1. Free Riders

As defined by the Stanford Encyclopedia of Philosophy, a free rider is “someone who receives a benefit without contributing towards the cost of its production.” These individuals create a complication, which is accordingly named the free rider problem. This phenomenon occurs when the efficient production of critical collective goods by free agents is jeopardized by each agent's lack of incentive to contribute: “If the supply of the good is inadequate, one's action of paying will not make it adequate; if the supply is adequate, one can receive it without paying.”

2.2. Collectivism

Collectivism is defined as a theory or political system based on the principle that all farms, factories, and other places of work in a country should be owned by or for all the people in that country by the Cambridge dictionary. The propensity to see oneself as interdependent and a part of a group rather than an independent individual is a defining characteristic of collectivists. Those in collectivist societies value collaborative behavior, communalism, positive interdependence, and adherence to social responsibilities and standards. It is incredibly likely that a collectivist culture will strongly emphasize the value of respect, social peace, and community needs over individual wants. Asian countries such as China and Korea are more commonly observed to have political traits of this nature [3-5].

2.3. Individualism

While collectivism emphasizes communal groups and symbiotic relationships for the masses, individualism focuses on each individual pursuing and achieving means that benefit them: the individual is prioritized over the collective group. Individualistic cultures value individuality, independence, self-sufficiency, and privacy. These features are more prominent within Western culture in countries such as America or the UK.

3. Experiment

3.1. Research Design

In this natural experiment, the independent variable, individuals' relative individualism-collectivism tendencies, and the dependent variable, free-rider behavior, are measured by the frequency and quality of in-game behaviors that contribute to the objective—are compared to see if they have any causal correlations [6].

3.1.1. Controlled Variables

The first controlled variable is the group size, as suggested by Robert Albanese and David D. van Fleet, which affects free-riding tendencies. All group sizes will be restricted to 8 people per group, consisting evenly of 4 collectivists and four individualists. Secondly, participants shall be assigned via matched pairs to ensure participant variability. The third variable to be controlled is language, as different languages may act as communication barriers between participants. Thus all participants must possess the ability to speak fluently and understand the English language. Fourthly, emotions may also act as a factor that may influence the results of this experiment. To minimise emotions such as stress, participants shall be able to dress, present, and behave freely and comfortably, yet still appropriately adhering to common societal standards. They will also be given additional time to explore and familiarize themselves in their assigned room to minimise anxiety. The fifth controlled variable is the experimenters. All experimenters will wear uniforms and observe the participants through a video recording from another room to prevent demand characteristics such as social desirability. To prevent researcher bias, the sixth controlled variable, the double-masked method will be implemented to ensure that researchers do not know which participant possesses certain cultural values. The seventh controlled variable is participant expectancy; through using deceptive methodologies to mislead participants into thinking that the research is assessing the time it takes to complete a task, participant expectancy may be avoided. A debriefing will be provided after the test to establish an ethical premise. The experimental rooms are the eighth controlled variable; each experimental room has an air conditioner, a table, a chair, a computer with voice call and Minecraft, and a bottle of water. These conditions are applied to ensure a comfortable environment for the participants to partake in the experiment for ethical reasons and to minimize the effect different environments can have on participants. The final yes, one of the most essential controlled variables is anonymity. Each participant will be assigned an identity of color which will be expressed through

their in-game skin and name; their identity will be concealed from both fellow participants and experimenters to minimize the effect of factors such as race and gender [7-10].

3.1.2. Sampling Methods

A Culture Orientation Scale individualism-collectivism exam will be administered to online self-selected samples to gauge their values. Forty international undergraduates between the ages of 18 and 22 should participate, with half being individualistic and the other half being collectivistic. They ought to be able to speak English fluently and play Minecraft. Before participating in the study, participants must fill out an informed consent form.

3.1.3. Materials

To complete this experiment, the following materials are required: 8 separate rooms, eight complete gaming setups (PC, keyboard, mouse, headset), 8 Minecraft accounts (setup with the according account name and skin), 1 survival Minecraft server, voice changer application, proximity chat applications, and screen and voice recording applications.

3.1.4. Procedure

Eight participants consisting of 4 individualists and four collectivists that have previously been identified through a scale are each placed separately within a room. In the room, they are provided with a complete gaming set-up and a Minecraft login which will introduce them to an account with the in-game skin and the name of a color. The 8 participants will be provided with a server to join, and once they join, they may communicate with each other via proximity chat with a voice changer or through regular in-game chat. The group will be introduced to the objective of building a house consisting of iron blocks, iron doors, and glass. Within the next two hours, the group is given full freedom within the game, and at the end, their performance will be evaluated through quantitative data provided by observers. This experiment will be conducted with five groups.

4. Results

4.1. Quantitative Measurement: In-Game Actions

Through measuring in-game actions that contribute towards the final goal, their level of participation and contribution may be calculated into a final score.

4.2. Quantitative Measurement: In-Game Behaviour

By using the mediation model, which describes how the variables in the experiment relate to one another, we will apply another quantitative measurement to confirm the experiment's objectivity. The model shows that the independent and dependent variables do not have a direct causal link and that the independent variable first affects the mediator variable, which then affects the dependent variable. Indicative of typical free-rider activity, the mediator variable we'll measure includes contribution level, reliance on others, and level of participation. Additionally, during the experiment, participants' screens will be recorded, and their behaviour will be observed in order to conduct a more thorough analysis. This measurement goes beyond simply examining the first group of quantitative test results to take into account a player's total involvement in the construction process when determining the degree of contribution. For instance, it considers things like helping with the lightning while mining the iron or clearing the soil for their dwelling. The second scale looks at how dependent each actor is on others. A player could be regarded as a free rider if they consistently follow other players while searching for resources and only take what is left behind. The third factor, the level of engagement, evaluates each participant's contribution to the construction process. From this perspective, a player who takes the initiative or assumes a leadership role may be less likely to be viewed inside the group as a free rider. In the end, each participant's entire performance will be reviewed and evaluated in order to identify their propensity to free-ride [10-12].

4.3. Qualitative Measurement

To ensure the satisfaction of ethical requirements and to gather additional information, a 10-minute unstructured interview will be conducted with each participant post-experiment. Topics such as how they may assess their behavior will be explored. Some example questions include: How do you think your overall contribution to the group may be summarised, and why? What actions do you think constitute an individual who is a free-rider/a helpful team member? Why did you choose to ___? These questions may provide a deeper insight into the values and views of the participants, including the reason fueling their decisions and actions in the experiment. However, the data collected from these interviews may need to be more reliable as demand characteristics such as the social desirability effect may cloud the participant's judgments regarding themselves.

4.4. Hypothesis

I hypothesize that possessing individualistic values decreases an individual's chances of free-riding in a group compared to collectivistic beliefs, which increases the tendency of an individual to engage in free-riding behavior. This hypothesis is supported by Wagner, who asserts that free-riding and social loafing may represent the quest for extreme individualism. On the other hand, collectivism values the group's interests. Still, over-commitment to the group's well-being may wear people out and impair their ability to contribute, endangering the group's performance and even endangering their survival. In this situation, cooperation means more than just each group member contributing to the whole; each member also contributes a minimal contribution to the group's survival. Another possible insight is Olson's opinion that just because a group's interests can come to an agreement and its members share a shared objective does not necessarily guarantee that cost-sharing can as well. That is to say, there will be disagreements over cost-sharing even if people are prepared to work together.

5. Research Implications: The Appliance of Research Findings to Real-Life Situations

According to our hypothesis, if the free rider tendency is found to be more commonly exhibited in collectivist individuals when participating in the task of building a house in Minecraft, then it implies that in society when making communal efforts toward a common goal collectivists are more likely to engage in free-riding behavior in comparison to individualists. These findings could impact our view and assessment of different individualistic and collectivist societies, including our prediction of their behavioural patterns. The more common view of individualists engaging in free-riding behavior could be altered. This could also further influence work environment designs. Work ethics, such as promoting a sense of community, which is most commonly observed in work environments, may be altered to encourage more individualistic views, such as encouraging employees to value their gain and interests [13-15].

6. Conclusion

In our current society, those with individualistic views are often suspected to be more likely to engage in free-riding behavior in comparison to those with collectivist views. We have designed a quasi-experiment that evaluates and compares the free-riding tendencies of collectivists and individualists. And our hypothesis, possessing individualistic values decreases an individual's chances of free-riding in a group compared to collectivistic beliefs, which increase the tendency of an individual to engage in free-riding behavior, challenges the formerly stated common opinion.

References

- [1] Hardin R. and Garrett C. The Free Rider Problem. The Stanford Encyclopedia of Philosophy Press, 2020

- [2] Albanese, R., van Fleet, D. D. Rational Behavior in Groups: The Free-Riding Tendency. *The Academy of Management Review*, 1985, 244–255.
- [3] Wagner, J. A. Studies of Individualism-Collectivism: Effects on Cooperation in Groups. *Academy of Management Journal*, 1995, 38(1): 152–173.
- [4] Golembiewski, R. T., Olson, M. The logic of collective action. *American Sociological Review*, 1966, 31(1): 177.
- [5] Moorman, Robert H., Gerald L. Blakely. Individualism-Collectivism as an Individual Difference Predictor of Organizational Citizenship Behavior. *Journal of Organizational Behavior*, 1995, 16(2): 127–42.
- [6] Triandis, Harry C. Collectivism v. Individualism: A Reconceptualisation of a Basic Concept in Cross-Cultural Social Psychology. Palgrave Macmillan UK EBooks, 1988, 60–95.
- [7] Jai, Normative Predictions of Collectivist-Individualist Intentions and Behaviour of Indians. *International Journal of Psychology*, 2002, 37(5): 309–19.
- [8] Jai Collectivism Coexisting with Individualism: An Indian Scenario. *Asian Journal of Social Psychology*, 2001, 4(2): 133–45.
- [9] Parks, C. D., Vu, A. D. Social Dilemma Behavior of Individuals from Highly Individualist and Collectivist Cultures. *Journal of Conflict Resolution*, 1994, 38(4): 708–718.
- [10] Niles, F. S. Individualism-Collectivism Revisited. *Cross-Cultural Research*, 1998, 32(4): 315–341.
- [11] Lacko, D., Čeněk, J., Točík, J., Avsec, A., Đorđević, V., Genc, A., Haka, F., Šakotić-Kurbalija, J., Mohorić, T., Neziri, I., & Subotić, S. The Necessity of Testing Measurement Invariance in Cross-Cultural Research: Potential Bias in Cross-Cultural Comparisons With Individualism–Collectivism Self-Report Scales. *Cross-Cultural Research*, 2022, 56(2–3): 228–267.
- [12] Triandis, H. C. Collectivism and Individualism as Cultural Syndromes. *Cross-Cultural Research*, 1993, 27(3–4): 155–180.
- [13] Munroe, R. L. Altruism and Collectivism: An Exploratory Study in Four Cultures. *Cross-Cultural Research*, 2018, 52(3): 334–345.
- [14] Triandis, Harry C... The Measurement of the Etic Aspects of Individualism and Collectivism across Cultures. *Australian Journal of Psychology*, 1986, 38(3): 257–67.
- [15] Carpenter, S. Effects of Cultural Tightness and Collectivism on Self-Concept and Causal Attributions. *Cross-Cultural Research*, 2000, 34(1): 38–56.