



# Cultural Variation in Perceiving Implied Competition

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**Abstract.** Various cultures breed different attitudes and interpretations of competition. Previous research tends to associate characteristics such as competitive and self-centered with individualists, while linking collectivists with cooperation and unity. Yet, recent studies indicate that individuals from collectivistic societies compete more intensely and covertly than individualists. Regarding the controversial findings, this paper proposes a potential laboratory experiment with an academic scenario to investigate the cultural variations in perceiving competition when there's no explicit signaling of competitive relationship. The prediction proposes that 1) collectivists might retain a stronger baseline sense of competition across group contexts, 2) collectivists' perceived extent of competition would be highest when they rate ingroup interactions, and 3) the probability of future cooperative behaviors might be negatively associated with perceived competition level.

**Keywords:** Competition · Cooperation · Cultural Psychology · Group interaction

## 1 Introduction

### 1.1 General Background

Group is a ubiquitous entity in everyone's life that remains essential throughout the history of mankind. In our social life, there are numerous ways to categorize groups. Groups can be formed based on inherited features such as gender and race, or they can also be developed through social processes, including economic status and cultural backgrounds. We engage in numerous kinds of interactions within and between groups, as we gradually form a sense of self throughout the processes of classifying ingroups and outgroups. Such social categorization is closely related to individual behaviors which reflect one's self-image, prejudice, and stereotypes.

In cross-cultural research, compared to their collectivist (i.e. Japanese) counterparts, individualists (i.e. Americans) are more prone to display an ingroup bias in aspects like group intelligence, perceived group personality traits, and resource allocation [1]. The distinction of ingroup-favoring traits can be moderated by variations in self-esteem and intergroup competition. However, intergroup competition is not the only major type

of competition that elicit the display of ingroup bias. Competition has miscellaneous interpretations and resembles distinguishable purposes in different cultures, resulting in assorted subjectivities and attitudes across group contexts. Thus, examining different cultural perceptions of competition between collectivist and individualistic societies would provide meaningful insights into the relationship between cultures and ingroup bias.

## 1.2 Literature Review

Studies that focus on competition conclude that ingroup favoritism will collapse due to competition among ingroup members [2]. Generally speaking, individuals show a proclivity to trust and cooperate more within their ingroup compared to the outgroup. However, when intragroup competition gets involved, the expectation for future reciprocity from ingroup members diminishes, along with the sense of security and belongingness that is supposed to generate by group identification. In addition, competition reduces individuals' cooperation, contribution, and payoff within a group [3]. Intragroup competition brings down the standing of group profits and renders individuals to act on their own behalf. Consequently, it seems plausible to adopt the claim that the more competition a society retains, the less ingroup bias will be demonstrated by individuals from that society.

Researchers have frequently associated people from individualistic societies with being competitive and self-centered, and those from collectivistic societies with cooperation and conformity [4, 5]. Competition has been made explicit a central feature of individualism, besides from low concern and distancing from ingroups, and putting personal achievements above ingroup goals [6]. Individualists' are more self-reliant, and individual excellency is prioritized more than the overall accomplishment of their ingroup.

Yet, some evidence has pointed to an alternative direction. Collectivists compete more, and more vigorously than individualists, especially in intragroup interactions [7]. Rather than clashing into direct conflicts, collectivists compete more covertly by withholding information for competitors and harboring more vigilance for their ingroup due to fear of a potential "frenemy"—an enemy among their friends and family. Collectivists hold the primary assumption that competition is zero-sum, that due to limited resources, one's gain is another's loss. Besides, the emphasis on utilizing a set of common standards in self-evaluation in collectivist societies denotes competition and social comparison as indispensable conditions toward success, which induces collectivists to constantly seek social comparison as a motivational means for self-improvement [8].

Based on the competing theories, the current study tries to extend and focuses on the cultural variations in the implicit perception of competition in a scenario where there's no explicit declaration of competition. The goal of the experiment is to examine whether individualist or collectivist cultures have a stronger "default" sense of competition in perceiving interactions. "Default" senses of competition specifically denote the intrinsic evaluation and baseline assumptions about the presence of competition without external cues.

Collectivists and individualists will be tested on three conditions: ingroup condition, intergroup condition, and outgroup condition. Participants will be asked to rate the extent

of competition they perceived via the scenario and how likely will the two characters engage in future cooperation. The hypotheses are that 1) collectivist cultures embed a stronger “default” sense of competition when perceiving ingroup interactions; 2) people from individualist societies will be more prone to derive implied competition out of the intergroup condition, and 3) the extent of implied competition is negatively interdependent with future cooperation. The predicted result justifies the hypotheses. The study furnishes evidence that cultures play a nonnegligible role in individuals’ perception of implied competition in different group contexts.

## 2 Method

Since the hypotheses focused on cultural variations in the context of collectivism versus individualism, participants will be chosen from China and The United States as representatives of distinct cultures. In order to maximize the capacity of cultural infiltration, all participants recruited have fulfilled the prerequisite that they are born and raised in their country of citizenship with little or no cross-cultural educational experiences. Further, all selected participants have not previously participated in other research related to perceiving competition in different cultural contexts.

A total of 240 local high school students will be recruited to be the participants in the experiment, with 120 Chinese students and 120 American students. Each participant will be shown a comic with still images of characters and transcripts. The transcripts are composed of a conversation between characters A and B and are translated into both Chinese and English. The conversation is assumed to happen in a neutral academic setting with no indication of any specific location: the background selected is in a library with bookshelves and desks that do not particularly resemble schools in either culture (Chinese vs. American). Characters A and B are represented by still images of headshots depending on the condition participants are assigned.

Participants are equally and randomly assigned to three conditions, where each condition comprises 40 Chinese and 40 American participants. The experiment tests how the perception of implied competition is different in cultures through between-subject design in three conditions. 1) Ingroup condition: when A and B both belong to the participant’s cultural ingroup; 2) Intergroup condition: when A and B belong to different cultural groups; and 3) Outgroup condition: when A and B both belong to the participant’s cultural outgroup. The group categorization is in regard to A and B’s nationality, which resembles the participant’s nationality and cultural background.

In each condition, information about A and B’s identities (i.e. nationality) and a basic introduction will be provided to the participants. Participants are then asked to read the comics and answer a series of questions about the perceived extent of competition between the two characters (A and B), and the likelihood of A and B’s future cooperation behavior. The comic portrays a scenario after a test, where classmates A and B are discussing their received grades. In the dialogue, an implicit stimulus is presented through the character’s performance using percentile ranking. A fragment of the demo is exhibited as follows.

A: *What did you get in the math exam? I totally bombed it.*

B: *I didn’t do as well as I thought either, I was only ranked top 20% in our class. Maybe we both need to revise more to do better next time.*

\* The top 20% will be equivalently converted into Chinese in the expression of “*the 20th place out of 100 students*” to facilitate understanding due to Chinese students’ familiarization with placement ranking.

## 2.1 The Selection of Still Images

In order to control the still images of characters’ faces as a neutral variable, 10 faces in total (5 Asian/Chinese and 5 American) are chosen out of the existing database. All the faces are pre-tested in previous research and scored equally on impressions such as aggressiveness, attractiveness, and intelligence. To avoid bias caused by a particular image due to personal reasons, each face will be randomly selected for participants based on their assigned conditions instead of appearing in fixed combinations.

## 3 Anticipated Results

The predicted results of the experiment illustrate a statistically significant difference in Chinese and Americans’ perceptions of implied competition in different group assortments. Overall, the main effect of the experiment shows that Chinese participants report a higher rate of perceived competition for the given scenario in all three conditions, and assume A and B will be less likely to cooperate in the future compared to their American counterparts. Particularly, when perceiving ingroup interactions, Chinese participants rate the perceived extent of competition significantly higher than Americans. Americans’ average scale of perceived competition rating is highest in intergroup conditions, proposing that competition emerges most probable in between-group interactions in individualistic societies. Lastly, the rating of future cooperation possibility has a negative correlation with competition in all three conditions.

## 4 General Discussion

### 4.1 Implication

The distinction in the initial speculations when perceiving competition between collectivistic and individualistic societies might be a mediator between cultural variation and ingroup bias. A previous study has tested the negative correlation between ingroup competition and ingroup favoritism [2]. In terms of perceiving within and between groups’ competition with no explicit external cues, ingroup bias might as well be influenced by disparities in cultural “default” senses of competition.

One extended outlook is how cultural variations in perceiving implied competition influence people’s construction of lifelong motivation and personal goal orientations. East Asians prefer to be “a small frog in a big pond” to “big frog in a small pond” compared to Americans as a metaphor for performing mediocre in an Ivy League or being a stellar student at a mid-ranked university [9]. The mechanism behind these differences can be partially explained by the various interpretations of competition across cultures. Americans from individualist societies aim for self-defined achievements, such as outstanding performance in schools or workplaces that focus on individual excellence,

which is independent of others. In contrast, East Asians share common criteria for success, and these standards depend largely on social recognition and acknowledgment through endless comparison and competition. There's less freedom for people in collectivist societies to construct their own set of principles toward success, as what deviates from the common model will receive few compliments from the social ingroups. In this sense, it's conceivable for collectivist societies to think of competition more as an inherent integral in life, especially when deciphering ingroup interactions.

Another interpretation worth considering is that the perceptions of implicit competition can act as an indicator of group unity and cooperativeness. Predicted results are consistent with the view that competition reduces cooperation on all group levels. Not only does cooperation diminishes, but also the group's collective payoff. Related research reveals that intragroup competition dissuades students' contribution to group development and knowledge sharing [10]. Stemming from the evidence, if group-level success depends on the accountability between ingroup members, higher perceived intragroup competition would predict lower individual involvement and group performance as a whole.

## 4.2 Limitation & Future Direction

Some limitations of the study should be discussed. Some may speculate that cultural stereotypes can alternatively explain the predicted results instead of the differences in cultural "default". To address this concern, we conduct a post-experiment questionnaire testing people's cultural prejudice against perceiving potential competition to ensure the validity of the data. The reason we put the cultural stereotype measure after the experiment is that we try not to elicit stereotypical opinions and prejudices against the idea of competition in different cultures in participants' ratings. Future research can extend deeper into the relationship between variations of cultural "default" and cultural stereotypes toward perceiving competition.

Lastly, the current study only examines cultural differences in perceiving competition in the academic environment. Relevant research offers evidence that the capacity of the study might be extended to workplaces as well. Chinese are more vigilant toward a scenario where a coworker comes by to offer help: 21% of them predicted the coworker's intention was to secretly sabotage while only 4% of Americans held the same type of assumption [11]. It's likely that the differences in vigilance are also associated with the cultural "default" perception of competition. More works need to be done to validate and generalize a wider range of effects potentially induced by cultural variation in perceiving implied competition.

## 5 Conclusion

The proposed study examines whether there exists a cultural variation in the perception of implied competition. One major takeaway from the predicted result is that, surprisingly, collectivists might demonstrate more competitiveness and derive a broader extent of competition from ingroup interactions. The predicted results might shed light on the future establishment of practical interventions concerning excessive ingroup competition

in various fields, such as in academic settings and workplaces. Strategies that aim to promote ingroup cooperation and ingroup cohesiveness may refer to the predicted results in order to integrate initial cultural differences into their future design. Furthermore, future research could connect people's perceived competition to stress and mental health conditions, which may mitigate some detrimental effects induced by inordinate vigilance and competitiveness in both group-level payoffs and personal well-being.

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