Post-Frog Pond: Cultural Variations in Hiring Decisions

Yuxuan (Blacker) Li

University of Michigan, Ann Arbor

Mentor: Dr. Stephen M. Garcia

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Abstract

Previous research has shown that students from collectivistic culture will prefer to become a low-performing student in a prestigious environment than to become a high-performing student in a less prestigious environment due to their emphasis on prestige or intergroup comparison when making decisions such as college entry decisions. Students from Individualistic culture, on the other hand, focus more on intragroup comparison and thus prefer to become the outstanding member in their respective environments. This thesis extends on this finding and generalize this culturally different preference into more professional settings. Also, this thesis examines the preference from a third party’s view to substantiate this finding. Study 1 replicated the previous research and examined admission officers’ preference. Study 2 extended the findings into internship decisions and examined hiring managers’ preference. Study 3 further extended the findings into the job market and brought in HR officers’ preference. Parallel multiple mediation analysis established intragroup comparison, intergroup comparison, and naïve realism as underlying motives. Together, findings reveal the intricate decision processes preceding competition entry that may, in turn, carry vast downstream consequences.

Keywords: entry decision, intragroup comparison, intergroup comparison, frog-pond effect, cross-cultural, naïve realism
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Would you prefer to be an outstanding student in a top 100 university or a mediocre student in an Ivy League university? What if your choice is about a job opportunity at a Fortune 500 firm where you might struggle and end up being a below-average employee or at a less competent firm where you would ace your job? Such preferences are known as the Frog-Pond Effect (FPE): the tendency to evaluate themselves more positively when they are the “big frog in a small pond” than being the “small frog in a big pond” (Marsh, 1987). Recent research suggests that Americans prefer to be the big frog in a small pond whereas Chinese prefer to be a small frog in a big pond (Garcia, Kopelman & Wu, 2017). However, do these cultural differences also manifest from the perspective of third-parties, or people who seek to hire or recruit these “frogs”. This thesis explores this central question and examines the cultural differences in frog pond decisions in different contexts.

Thus, this thesis seeks to make a contribution to the Frog-Pond Effect literature by showing how one’s status in the pond and the status of the pond affect downstream opportunities for the “frog”. It also contributes to the literature by adding to the growing literature on culture and Frog-Pond Effect. Wu et al. recently explored the cultural distinctions between Chinese and Americans’ rationale behind frog pond decisions in hypothetical college entry and job entry scenarios (2017) and this thesis will extend on these findings and generalize Frog-Pond Effect and the cultural differences in Frog-Pond Effect into other situations. Finally, it also makes an indirect contribution to the naïve realism literature by highlighting possible actor and observer differences (Garcia, Schwarz & Weaver, 2012) in the Frog-Pond Effect. This thesis will review the literature on the frog pond effect, how Frog-Pond preferences differ across cultures and the third-party perspective; 4 studies used to test our hypothesis will be presented. This thesis will
conclude with theoretical and practical implications as well as limitations.

**The Frog Pond Effect**

Studies have shown that people who do poorly in a high-performance group will feel worse and less competent than equally capable individuals who perform well in a low-performance group (Marsh, 1987). In one study, more than 50% people prefer to live in a place where they possess higher IQ as compared to other citizens (Hemenway & Solnick, 1998). This is known as the Frog-Pond Effect (FPE). FPE stated that people feel better about themselves when they are the star in a mediocre group rather than being a mediocre member of an elite group. One potential explanation about why FPE might occur is that when in a group, people tend to focus on their relative performance rather than on the group’s overall achievement (Ladley, Wilkinson & Young, 2015; Buehler & McFarland, 1995). Therefore, people tend to prefer to be the significant person among the midst of some less capable group members.

Although we encounter frog pond decisions all the time, there seems not to be a “right” choice for everyone. Our frog pond preferences are shaped by the sociocultural environment in which we grew up (Kitayama & Markus, 2010) and the cultural contexts in which we live (Li et al., 2015). The environments we grew up in adjusted our personalities (Triandis & Suh, 2002) and thus formed such a frog-pond preference. From a cross cultural perspective, we propose that frog-pond preference is not an arbitrary one, instead, it is one influenced significantly by culture.

**How does FPE Preferences Differ Across Cultures?**

Frog pond decisions are involved in all aspects of our lives: which university to go to, which firm to work for, etc. (Bawden, 2017). These decisions can significantly alter our life paths and result in unexpected consequences. Because of the gravity of frog pond, it’s rather important to see if Frog-Pond preferences differ across cultural contexts. Wu et al. recently
explored Frog-Pond Effect and cultural differences in Frog-Pond preferences extensively; they captured the simple decision of the FPE by asking hypothetical entry preferences (2017). Wu et al. compared the responses rate from American and Chinese participants to examine the cultural differences in frog pond decisions (2017). In one study, for example, participants were asked whether they wanted to work for a top 10 company in which they would be below average (small frog in a big pond) or a top 100 company in which they would be above average (big frog in a small pond). Results showed that Americans prefer to be the big frog in a small pond whereas significantly more Chinese choose to be the small frog in a big pond.

The differences in the Frog-Pond preferences between Chinese and Americans might be explained by the perception of prestige. One cultural study of decision-making discussed how the perception of prestige can guide one’s decision: East Asians consistently prefer famous brand names over generic ones as compared to European Americans (Drolet & Kim, 2009). Wu et al. also mentioned the prestige as an important factor in frog pond decision-making procedures (2017). In their experiment, Wu et al., used the seven-item status aspiration subscale of the Achievement Motivation Scale (Cassidy & Lynn, 1989) to measure the concern for prestige (2017). Also, when participants were making choices in college entry scenarios (choosing between becoming a mediocre student in a national top 10 university and becoming a top student in a national 100 university), Wu et al., used the School Status Scale (March et al., 2000) to assess participants’ concern for school status. Results showed that Chinese, as compared to Americans, ranked higher on these scales. Therefore, Chinese appear to be more motivated by the prestige of the pond whereas Americans are not as much.

The Third-Party Perspective
We have established that when making frog pond decisions, Chinese, as compared with Americans, would place more emphasis on prestige of the pond. But people do not always see eye to eye: Will such cultural differences still present from the third-party perspective? In extend to the college entry decision scenario in Wu et al.’s paper, we could potentially add an observer: ask participants to make decision from the admission team’s perspective. If the rationales behind students’ (actors’) decisions are indeed about future employability. Employers’ (observers’) hiring decisions then become essential because we can see if actors and observers employ similar thinking patterns when making such decisions. In other words, we can examine if actors’ decisions reflect their understanding about the theory of mind; if actors use perspective taking while making such decisions (Decety & Ruby, 2001). If actors do take observers’ preference into consideration, they should make college decisions that are in accordance with observers’ hiring preference. For instance, if employers tend to prefer mediocre students from a prestigious college (small frog in a big pond), comparing to a top student from a less prestigious university (big frog in a small pond), then actors should prefer to be the small frog.

However, from the fundamental attribution error, we know that actors and observers made different attributions based on their perspectives (Nisbett & Ross, 2011). From the presenter’s paradox (Garcia, Schwarz & Weaver, 2012), we also know that presenters of information, who think including additional mildly favorable information alongside highly favorable info can strengthen their desired impression, do not realize that evaluators will be averaging information together, such that mildly favorable dilutes strongly favorable information and thus the impression. Thus, if actors’ decisions deviate from observers’ preference, it means that actors simply assume observers have similar preferences as they do, when in reality, observers have a reverse preference.
And while we know that there are cultural differences in people’s pond preferences, I would thus like to explore whether actors and observers see eye-to-eye when thinking about the downstream consequences of being a particular size of frog in a particular size of pond. In light of the naïve realism literature, I anticipate that third parties will show different preferences than the pattern of results from Wu et al. From the observer’s perspective, they tend to stress a lot on intergroup comparison instead of on the evaluation of the overall group status relative to other groups (Brewer & Gardner, 1996). Granted, we have to admit that both intergroup and intragroup comparisons exist in such decision-making processes from an observer’s standpoint; the extent to which these decisions lean towards one or another might depend on the social context where the decisions are being made (Morris & Weber, 2010).

We therefore hypothesize actors and observers would have different preference when making frog pond decisions, but the extent to which cultural differences play here is to be determined.

**Pilot Study**

**Participants**

In the pilot study, we recruited 190 typical European Americans (Age Range = 19 - 66, \( M_{age} = 36.04, SD = 11.089, 76 \) males) from platform MTurk and 318 typical Chinese participants (Age Range = 20 - 63, \( M_{age} = 32.94, SD = 7.710, 120 \) males) from platform Sojump. A comparison of our sample’s demographic characteristics with the U.S. (U.S. Census Bureau, 2010) and Chinese census data (National Bureau of Statistics China, 2010) revealed similarity to national norms.

**Procedure and Measures**

**Random assignment to condition.** Participants were asked to complete a survey online.
We asked the participants to imagine they’re helping a company to make employment decisions for an entry-level job. In this initial pilot study, we captured candidates’ performance in two ways. In one condition, we used the linguistic description of “below-average” versus “above-average.” In another condition, we used % values to convey above and below average. However, both are intended to capture the same effect. They were then randomly assigned to one of two conditions (Average vs. Percentage) created.

In the Average condition, half of the participants were presented with a binary choice of hiring either a candidate graduating from a top 10 university with a below-average GPA or a candidate graduating from a top 100 university with an above-average GPA.

In the Percentage condition, half of the participants were asked to hire either a candidate graduating from a top 10 university but ranked among the bottom 10% or a candidate graduating from a top 100 university with the top 10% rank within the university.

After the prompt was presented, participants in each condition were instructed to choose between two choices presented.

**Comprehension check.** Two comprehension checks were administrated to ensure that participants followed the instructions. After making the choice, participants were asked what the ranking of the candidate they chose has within the university. In the Average condition, a binary choice of above-average GPA and below-average GPA was given. In the Percentage condition, a binary choice of top 10% and bottom 10% was given. Subsequently, participants were asked the ranking of the university of the candidate they chose using a similar binary question.

Those who failed the comprehension checks are discarded from the data analysis.

**Results**
Descriptive statistics. We first ran descriptive statistics on participants’ choices: the choices are coded as Big Frog in Small Pond (high performance in less competitive institution) and Small Frog in Big Pond (low performance in competitive institution). Participants prefer to hire the Big Frog in Small Pond, regardless of their cultural backgrounds and the conditions they are in. For European Americans, 162 out of 190 (85%) participants showed such preference. While 229 out of 318 (72%) Chinese showed such preference.

Such effect appeared in both conditions. Same effects stand when including only those who are employed + who have obtained a 4-year college education. The only case where a cultural difference appear was in the percentage paradigm, excluding unemployed (but keeping all education levels). In this case, Chinese were relatively less likely to prefer “big frog”, p = .06. However, sample size is relatively small in this case (with 38 European Americans and 73 Chinese); and this cultural difference disappears when excluding both unemployed and those who’s not college educated.

The pilot study laid a firm foundation for the present study. We will build upon the results on the pilot study and design the present study to examine the hypotheses.

The Present Study

The present study examined East Asians’ (represented by Chinese participants in this study) and Westerners’ (represented by European American participants in this study) FPE preferences and people’s perceptions of those who come from a “big pond” or a “small pond”.

Former studies have shown that when facing frog pond decisions, Chinese, compared to Americans, tend to prefer to be a member of the “big pond”. We want to extend on this finding and see if such preference exists from a third party’s perspective. To be specific, we want to see if people will show a preference between applicants from a “big pond” and ones from a “small
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pond” when making employment decisions. If there appears to be a preference, will the preference be the same for people from different cultural backgrounds? That is, will Chinese and European Americans show similar preference towards applicants from different “ponds”?

Former study (Garcia, Kopelman & Wu, 2017) has established that there is a cultural difference regarding Frog-Pond preferences but the rationale behind the Frog-Pond decisions are not examine. In specific, we want to examine students’ rationale behind their college decisions to see if they take future employability into account when making such decisions. Thus, the present study builds incrementally upon Wu et al. (2017) by specifying future employability. Will students exhibit similar preference as former study found when explicitly told their decision will influence future employability?

Overview of the studies

Hypotheses

Our predictions are:

1. There will be no cultural differences between Chinese and European Americans when observers are making frog pond decisions regarding which candidate to choose across different scenarios.

2. There will be cultural differences between Chinese and European Americans if actors are explicitly told to think about future employability when making frog pond decisions across different scenarios.

3. Chinese, as compared to European American participants, will show a stronger preference towards the Small Frog in Big Pond (prestigious background)

Study 1 and 2 examined our hypothesis in education and work settings. Study 2 serves as an extension of Study 1 by generalizing the findings into a more professional setting. Study 3
will be a further generalization of Study 1 and Study 2 into real world everyday-decision making. Study 4 (on-going) examined employer and admission officers’ attitude-behavior consistency in the real world.

**Study 1**

**Participants**

A sample of 207 European American participants and 393 Chinese participants were recruited from MTurk and Sojomp. Of the 600 completed survey received, participants were excluded from analysis for failing the comprehension checks by unmatched responses with their condition choices. The final sample included 171 typical European Americans participants (Age range = 20-72, $M_{age} = 37.79$, SD = 12.03, 91 males) were recruited through MTurk and 239 typical Chinese participants (Age range = 20-59, $M_{age} = 33.39$, SD = 6.98, 114 males) were recruited through Sojump. A comparison of our sample’s demographic characteristics with the U.S. (U.S. Census Bureau, 2010) and Chinese census data (National Bureau of Statistics China, 2010) revealed similarity to national norms.

The probability of being excluded did not vary by condition, nor did it vary by age, gender, or marital status. However, the exclusion rate did vary by cultural background, with Chinese (23%) more likely to be dropped from analysis than European Americans (17%).

**Procedure and Measure**

We used a 2 (Culture: US, China) x 2 (Different Conditions: Actors, Observer) between-subjects design (McFarland & Buehler, 1995).

**Random assignment to condition.** Participants from respective cultures were randomly assigned to one of the two conditions (Actor vs. Observer).

In the actor condition, participants were asked to imagine a scenario in which they were
to make a choice about which university they want to go: a national top 10 university in which they would rank below-average in performance or a national top 100 university in which they would rank above-average in performance.

In the observer condition, participants were asked to imagine a scenario in which they were the hiring manager of a firm and were to make a choice about which applicant to hire: a recent graduate from a national top 10 university who ranked below-average in performance within the university or a recent graduate from a national top 100 university who ranked above-average in performance within the university.

In the actor condition, one minor twist from the pilot study and Wu et al.’s design in 2017 is that we primed our participants to take future employability into consideration by asking them to “base their decision on the future prospects of being hired after you complete your university education” just to clear extra noises.

After the prompt was presented, participants in each condition were instructed to choose between two choices presented.

**Comprehension check.** Two comprehension checks were administrated to ensure that participants followed the instructions. After making the choice, participants were asked what the ranking of the candidate they chose has within the institution: a binary choice of above-average and below-average is presented. Subsequently, we asked the ranking of the institution the candidate from by presenting a binary choice of national top 10 and national top 100. Participants were asked to answer this binary question.

We compared participants’ answers in comprehension check questions and their answers in the condition questions. We excluded those who failed the comprehension check from the
Main dependent measure. The dependent variable will be participants’ subject perceptions and cognitive evaluation about the hypothetical applicants (Cai, Brown, Deng, & Oakes, 2007). To be specific, participants’ frequency of the choice Small Frog in Big Pond (low performance individual from competitive environment) is measured.

Results

Main dependent measure. We conducted logistic regression of culture, condition, culture X condition to examine the effect of culture, condition, and their interaction on choices. Culture was dummy coded as 0 for Chinese participants and 1 for European Americans. Condition was dummy coded as 0 for Actor condition and 1 for Observer condition. Choice was dummy coded as 0 for Big Frog in Small Pond and 1 for Small Frog in Big Pond.

We first examined the effect of culture on choices. The main effect of culture on choice emerged when we disregarded the condition differences and examined cultures’ predictability on choices, $b = 1.036$, $p = .005$, CI = [1.366, 5.807]: Chinese are more likely to choose to become the Small Frog in Big Pond. That is to say, regardless of condition, Chinese care more about the prestige of the institution.

Next, we examined the effect of condition on choices. Main effect of condition on choice emerged when we disregard the cultural differences and examine conditions’ predictability on choices, $b = 1.414$, $p < .001$, CI = [1.945, 8.691]: Actors are more likely to choose to become the

\begin{footnote}
We also performed a conservative approach by including of those who failed one or both manipulation checks. Culture remained as a marginally significant predictor of entry decision tendencies.
\end{footnote}
Small Frog in Big Pond whereas Observers tend to prefer the opposite.

Subsequently, we measured the interaction between condition and culture. But there’s no interaction in this case, $b = 0.309$, $p = .515$, CI = [0.537, 3.461].

These results confirmed our hypothesis 2: the main effect of culture indicates that Chinese are more likely to choose to become the Small Frog in Big Pond, especially in the Actor condition.

**Descriptive statistics.** We then ran descriptive analyses on participants’ choices in both conditions. In the Observer condition, both European American (14%, $p < .001$) and Chinese participants (31%, $p < .001$) less prefer the Small Frog in Big Pond (low performance individual in competitive environment). In contrast, in the Actor condition, Chinese participants (72%, $p < .001$) prefer to be in a prestigious university even if they are going to perform below-average within that university (Small Frog in Big Pond). However, less than half European Americans (40%, $p = .065$) share this preference to be the Small Frog in Big Pond.

If we sort the data by condition and examine the cultural predictability in choices among our participants, we will find statistical significance in both conditions. In the Actor condition, Chinese participants are more likely to prefer the Small Frog from Big Pond, $b = 1.345$, $p < .001$, CI = [2.132, 6.909]. Similar results persist in the Observer condition $b = 1.036$, $p = .005$, CI = [1.366, 5.807].

These results supported our hypotheses: Both Chinese and European American observers prefer Big Frog in Small Pond (Chinese observers’ preference is stronger). This indicates that participants from both cultures, when making frog pond decisions as observers, have the same preference. Most Chinese actors prefer to be Small Frog in Big Pond whereas less than half European American actors share this preference. This indicates that culture clearly plays a role
when participants make frog pond decisions as actors. In addition, Chinese participants are more likely to prefer prestigious background as compared to European American participants, regardless of conditions.

Study 2

Participants

A sample of 265 European American participants and 354 Chinese participants were recruited from MTurk and Sojump. Of the 619 completed survey received, participants were excluded from analysis for failing the comprehension checks by unmatched responses with their condition choices. The final sample included 156 typical European Americans participants (Age range = 18-68, $M_{age} = 41.51$, $SD = 13.51$, 73 males) were recruited through MTurk and 201 typical Chinese participants (Age range = 19-60, $M_{age} = 33.57$, $SD = 7.85$, 107 males) were recruited through Sojump. A comparison of our sample’s demographic characteristics with the U.S. (U.S. Census Bureau, 2010) and Chinese census data (National Bureau of Statistics China, 2010) revealed similarity to national norms.

The probability of being excluded did not vary by condition, nor did it vary by age, gender, or marital status. Moreover, the exclusion rate did not vary by cultural background, with Chinese (43%) equally likely to be dropped from analysis than European Americans (41%).

Procedure and Measure

We used a 2 (Culture: US, China) x 2 (Different Conditions: Actor, Observer) between-subjects design (McFarland & Buehler, 1995).

**Random assignment to condition.** Participants from respective cultures were randomly assigned to one of the two conditions (Actor vs. Observer).

In the actor condition, participants were asked to imagine a scenario in which they were
to make a choice about which bank to take internship with: an international top 10 bank in which they would perform below-average as compared with other interns or an international top 100 bank in which they would perform above-average as compared with other interns.

In the observer condition, participants were asked to imagine a scenario in which they were the hiring manager of a bank and were to make a choice about which applicant to hire: a recent graduate who did internship at an international top 10 bank but performed below-average as compared with other interns that term or a recent graduate who did internship at an international top 100 bank but performed above-average as compared with other interns that term.

In the actor condition, we primed our participants that they need to take into consideration future employability by asking them to “base their decision on the future prospects of being hired by other banks” just to clear extra noises.

After the prompt was presented, participants in each condition were instructed to choose between two choices presented.

**Comprehension check.** Two comprehension checks were administrated to ensure that participants followed the instructions. After making the choice, participants were asked what the ranking of the candidate they chose has within the bank: a binary choice of above-average and below-average is presented. Subsequently, we asked the ranking of the bank the candidate from by presenting a binary choice of international top 10 and international top 100. Participants were asked to answer this binary question.

We compared participants’ answers in comprehension check questions and their answers in the condition questions. We excluded those who failed the comprehension check from the
Main dependent measure. The dependent variable will be participants’ subject perceptions and cognitive evaluation about the hypothetical applicants (Cai, Brown, Deng, & Oakes, 2007). To be specific, participants’ frequency of the choice Small Frog in Big Pond (low performance individual from competitive environment) is measured.

Results

Main dependent measure. We conducted logistic regression of culture, condition, culture X condition to examine the effect of culture, condition, and their interaction on choices. Culture was dummy coded as 0 for Chinese participants and 1 for European Americans. Condition was dummy coded as 0 for Actor condition and 1 for Observer condition. Choice was dummy coded as 0 for Big Frog in Small Pond and 1 for Small Frog in Big Pond.

We first examined the effect of culture on choices. The main effect of culture on choice emerged when we disregarded the condition differences and examined cultures’ predictability on choices, $b = 1.044$, $p = .032$, CI $= [1.093, 7.389]$; Chinese are more likely to choose to become the Small Frog in Big Pond. That is to say, regardless of condition, Chinese care more about the prestige of the institution.

Next, we examined the effect of condition on choices. The main effect of condition on choice emerged when we disregard the cultural differences and examine conditions’
predictability on choices, \( b = .950, p = .060, CI = [.96, 6.972] \): Actors are more likely to choose to become the Small Frog in Big Pond whereas Observers tend to prefer the opposite.

Subsequently, we measured the interaction between condition and culture. But there’s no interaction in this case, \( b = -0.195, p = .745, CI = [.255, 2.657] \).

These results supported our hypothesis 2: The main effect of culture shows that Chinese are more likely to prefer to become the Small Frog in Big Pond than European Americans, especially when they are making frog pond decisions as actors.

**Descriptive statistics.** We then ran descriptive analyses on participants’ choices in both conditions. In the Observer condition, both European American (9%, \( p < .001 \)) and Chinese participants (21%, \( p < .001 \)) less prefer the Small Frog in Big Pond (low performance individual in competitive environment). In the Actor condition, Chinese participants (37%, \( p = .005 \)) prefer to be in a prestigious bank even if they are going to perform below-average within that bank (Small Frog in Big Pond) and European Americans (20%, \( p < .001 \)) share the similar preference.

If we sort the data by condition and examine the cultural predictability in choices among our participants, we will find statistical significance in both conditions. In the Actor condition, Chinese participants are more likely to prefer the Small Frog from Big Pond, \( b = .850, p = .014, CI = [1.187, 4.608] \). Similar results persist in the Observer condition, \( b = 1.044, p = 0.032, CI = [1.093, 7.389] \).

These results supported our hypotheses: Both Chinese and European American observers prefer Big Frog in Small Pond (with Chinese observers hold a stronger preference). This indicates that participants from both cultures, when making frog pond decisions as observers, have the same preference. More Chinese actors prefer to be Small Frog in Big Pond than European American actors. This indicates that culture plays a role when participants make frog
pond decisions as actors. Chi-square test comparing the differences in percentage of Chinese and percentage of European Americans preferring Small Frog in Big Pond also indicates that this difference is statistically significant, \( \chi^2(1, N = 357) = 0.89, p < .005 \). What’s more, Chinese participants are more likely to prefer prestigious background as compared to European American participants, regardless of conditions.

**Study 3**

**Participants**

A sample of 226 European American participants and 353 Chinese participants were recruited from MTurk and Sojomp. Of the 579 completed survey received, participants were excluded from analysis for failing the comprehension checks by unmatched responses with their condition choices. The final sample included 172 typical European Americans participants (Age range = 18-70, \( M_{age} = 38.64, SD = 11.37, 71 \) males) were recruited through MTurk and 192 typical Chinese participants (Age range = 18-62, \( M_{age} = 35.47, SD = 7.56, 110 \) males) were recruited through Sojump. A comparison of our sample’s demographic characteristics with the U.S. (U.S. Census Bureau, 2010) and Chinese census data (National Bureau of Statistics China, 2010) revealed similarity to national norms.

The probability of being excluded did not vary by condition, nor did it vary by age, gender, or marital status. However, the exclusion rate did vary by cultural background, with Chinese (46%) more likely to be dropped from analysis than European Americans (24%).

**Procedure and Measure**

We used a 2 (Culture: US, China) x 2 (Different Conditions: Actor, Observer) between-subjects design (McFarland & Buehler, 1995).

**Random assignment to condition.** Participants from respective cultures were randomly
assigned to one of the two conditions (Actor vs. Observer).

In the actor condition, participants were asked to imagine a scenario in which they were to make a choice about which consulting firm to go to and work as an investment manager: an international top 10 consulting firm in which they would perform below-average as compared with their colleagues or an international top 100 consulting firm in which they would perform above-average as compared with their colleagues.

In the observer condition, participants were asked to imagine a scenario in which they were customers with the intent to invest and were to make a choice about which investment manager to hire: an investment manager at an international top 10 consulting firm but who performed below-average as compared with colleagues or an investment manager at an international top 100 university but who performed above-average as compared with colleagues.

In the actor condition, we primed our participants that they need to take into consideration future employability by asking them to “base their decision on the future prospects of attracting clients” just to clear extra noises.

After the prompt was presented, participants in each condition were instructed to choose between two choices presented.

**Comprehension check.** Two comprehension checks were administrated to ensure that participants followed the instructions. After making the choice, participants were asked what the ranking of the candidate they chose has within the firm: a binary choice of above-average and below-average is presented. Subsequently, we asked the ranking of the firm the candidate from by presenting a binary choice of international top 10 and international top 100. Participants were asked to answer this binary question.

We compared participants’ answers in comprehension check questions and their answers
in the condition questions. We excluded those who failed the comprehension check from the analysis.\footnote{We also performed a conservative approach by including of those who failed one or both manipulation checks. Culture remained as a marginally significant predictor of entry decision tendencies.}

**Main dependent measure.** The dependent variable will be participants’ subject perceptions and cognitive evaluation about the hypothetical applicants (Cai, Brown, Deng, & Oakes, 2007). To be specific, participants’ frequency of the choice Small Frog in Big Pond (low performance individual from competitive environment) is measured.

**Results**

**Main dependent measure.** We conducted logistic regression of culture, condition, culture X condition to examine the effect of culture, condition, and their interaction on choices. Culture was dummy coded as 0 for Chinese participants and 1 for European Americans. Condition was dummy coded as 0 for Actor condition and 1 for Observer condition. Choice was dummy coded as 0 for Big Frog in Small Pond and 1 for Small Frog in Big Pond.

We first examined the effect of culture on choices. The main effect of culture on choice emerged when we disregard the condition differences and examine cultures’ predictability on choices, \(b = 1.440, p < .001, \text{CI} [1.929, 9.231]\): Chinese are more likely to choose to become the Small Frog in Big Pond. That is to say, regardless of condition, Chinese care more about the prestige of the institution.

Next, we examined the effect of condition on choices. There’s no main effect of condition on choices in this case, \(b = .622, p = .154, \text{CI} = [0.792, 4.379]\).
Subsequently, we measured the interaction between condition and culture. An interaction emerges when we include culture X condition interaction term in the logistic on choices in this case, $b = -1.407, p = .011, CI = [.083, .720])$.

To investigate this interaction, we first split the file by culture and examined the effect of condition on choices. Within European Americans, there’s no significant difference when we look at these two conditions separately, $b = .622, p = .154, CI = [.792, 4.379]$. However, when we look at Chinese participants, there appears to be a statistical significance of condition on choice, $b = -.785, p = .019, CI = [.236, .880]$. This is to say that when being placed in the Observer condition, as compared to when being placed in the Actor condition, participants are more likely to prefer the Small Frog in Big Pond whereas participants in the Actor condition care more about the prestige of the firm.

We then split the file by condition and examined the effect on culture on choices. In the Observer condition, there appears to be statistically significant effect of culture on choice, $b = 1.440, p < .001, CI = [1.929, 9.231]$. This is to say that Chinese are more likely to prefer the Small Frog in Big Pond, as compared to Americans. When we look at the Actor condition, there appears to be no statistically significant differences in culture, $b = .033, p = .931, CI = [.492, 2.168]$.

With the aforementioned analysis, our hypothesis 3 is confirmed by Chinese participants’ universal preference of Small Frog in Big Pond: When we split files by culture, we can see conditional predictability in Chinese; in this particular scenario, Chinese are more likely to prefer Small Frog in Big Pond regardless of condition.

**Descriptive statistics.** We then ran descriptive analyses on participants’ choices in both conditions. In the Observer condition, both European American (11%, $p < .001$) and Chinese
participants (35%, p = .004) less prefer the Small Frog in Big Pond (low performance individual in competitive environment). In the Actor condition, Chinese participants (20%, p < .001) prefer to be in a prestigious bank even if they are going to perform below-average within that bank (Small Frog in Big Pond) and European Americans (17%, p < .001) show the similar preference.

These results supported our hypothesis 1: Both Chinese and European American observers prefer Small Frog in Big Pond. This indicates that participants from both cultures, when making frog pond decisions as observers, have the same preference.

However, in this particular scenario, our hypothesis 2 is not supported by data due to the existence of interaction and lack of main effect of condition on choices. In the Actor condition, the cultural difference is not statistically significant.

**Future (Ongoing) Study 4**

This ongoing study will be an extension of the above experiments sequence. This study will be examining the attitude-behavior consistency of the Observer condition findings in the present study in order to further concrete and strengthen our findings. The present studies established a similar preference for “big frog” from Observers’ perspective across culture. But will this preference still present when we examine real world employment data?

The present studies also confirmed the frog-pond preference in both job markets and educational institutions. Will college admission data conform with such attitudinal preference for “big frog” regardless of their background? Does college admission team consider a top student from a less prestigious background as more competent than a mediocre student from a prestigious background? We want to examine attitude-behavior consistency in real world frog pond scenarios.

This study has already been granted IRB exempt (HUM00141014).
Hypotheses

1. Actual observer data (admission and employment data) will not be in accordance with people’s attitudinal preferences — In the real world frog pond settings, big frog in a small pond will be less preferred as in the survey.

2. Chinese real world observers will be more likely to prefer those from big pond that European American observers.

Participants

50 firms in the United States and 50 firms in China, and 20 Universities in the United States and 20 Universities in China will be sampled. Firms will vary in their respective industries but comparable across culture (similar relative national ranking, popularity, etc.). Universities will vary in their size, location but comparable across culture (similar relative national ranking, popularity, etc.). We constructed a sample firm list (see Appendix A) and a sample university list (see Appendix B), which contain the firms and universities that we are going to contact.

Design

We will construct resumes containing information only differs in applicants’ graduating institutions and GPA and send those resumes to actual employers and/or university admissions requesting a meeting talking about the expected skill sets of the position/program.

We will also examine the current admission data from actual firms/universities.

The dependent variable will be the actual admitted students/the number of people got email responses (Cai, Brown, Deng, & Oakes, 2007).

This study will be divided into two separate sections:

1. Examination (of current admission/employment data):
Based on admitted students/employed employees’ data, we will code them into four categories a. Big Frog in Big Pond (outstanding performance from prestigious college), b. Big Frog in Small Pond (outstanding performance from less prestigious college), c. Small Frog in Big Pond (mediocre performance from prestigious college), d. Small Frog in Small Pond (mediocre performance from prestigious college).

The data from group a and d will be discarded and not included in the analysis. We will run Chi-Square analysis on group b and c to compare their relative frequency.

2. Field Study:

We will send out fake resumes comparable in all aspects other than graduating college and GPA. We will code those resumes into two categories, 1. Big Frog in Small Pond (outstanding performance from less prestigious college), b. Small Frog in Big Pond (mediocre performance from prestigious college). We will send out emails to actual employers and universities requesting a meeting or asking if the applicants’ qualification is suitable for the position/program. Additionally, we want to keep the ability of the resumes from the two groups same, so we will use SAT/GRE/IQ as a proxy for ability. The scores of the ability proxy will be the same across groups. We will measure the response rate from the companies/universities to see if they have a preference towards one group. More importantly, we will measure the differences among cultures (between Chinese and U.S.) to see if there are cultural differences in the hiring preference. We constructed an email template to use to contact target firms (see Appendix C).

**Expected Results**

1. Admission/employment data will show a preference towards the big frog in a small pond, but the extent of the effect will be less than the result in the survey (study 1 through 3).
2. Experiment will yield results in favor of the results of the present studies — the big frog will receive a higher response rate/admission rate.

3. There will be no culture difference with regards to the response rate for the big frog.

4. The response rate for small frog in big pond will be higher for Chinese since they have a preference for prestige but still less than the response rate for big frog in small pond.

We constructed an exaggerated result rating to show expected patterns (see Appendix D).

**Discussion**

One cannot fully comprehend people’s rationale behind their frog-pond decisions without taking into consideration the cultural scope. Our findings indicate that from actors’ points of view, the preference of being the small frog in the big pond is more likely to exist in Chinese actors versus European Americans due to Chinese’s emphasis on prestige. From the observers’ standpoint, however, cultural differences become less prominent: both cultures showed a preference, albeit of different extent, towards the big frog regardless of their background.

Our findings showed a hierarchical preference of frog-pond decision among actors. To be specific, the more professional the experimental settings are, the less significant the cultural differences are. In study 1, participants were facing a college admission decisions scenario, which is categorized as the least professional setting since it’s a pre-career decision (Feldman, 1995) to make. In study 2, participants were presented with an internship decision, which is categorized as the medium professional setting since it doesn’t directly determine one’s future career path. Study 3 presented the participants with an investment manager choice, which is more realistic and more professional, and this is thus categorized as the most professional setting.

In these three studies, the predictability of culture on their choices has decreased from statistically significant in study 1 to mere significance in study 2 and no significance in study 3.
In other words, the more professional the settings got, the less cultural differences appear in the responses.

Such hierarchical preference is also prominent from observers’ perspectives. If we compare the results of the Observer conditions among the three studies (admission choosing applicant; bank choosing intern; customer choosing investment manager), cultural differences decrease significantly when we moved from study 1 to study 3. In study 2 and study 3, both cultures actually showed same preference towards the big frog in the small pond. Therefore, we can predict that the observers would stress more on intergroup comparisons (Chund & Mallery, 2000) regardless of their cultural backgrounds. This confirmed our hypothesis that observers across cultures share the same preference.

**Theoretical Implications**

Our findings exposed frog-pond decision-making procedures in a culturally contextual framework (Dyer & Gelfand, 2000) with different depths using our different constructions of experimental scenarios. Past research identified the frog-pond rationale as an expression of selfhood (Garcia, Kopelman & Wu, 2017). From this stand point, people’s perception of frog-pond decisions can actually be a tradeoff between being in a big pond and being the big frog (Garcia, Kopelman & Wu, 2017). European American culture is a typical individualistic one (Rhee et al., 1995), whereas Chinese culture is a typical collectivistic one (Kim, Park & Suzuki, 1990). Therefore, it’s only natural for Chinese actors to put more emphasis on the group performance since they view the group they are in as an expression, or extension, of their self-identity. On the other hand, European American actors place their evaluations of their self-perception upon their own performance, regardless of which group they are in. In a way, collectivistic and individualistic cultural backgrounds pre-determined actors’ relative emphasis
on intergroup and intra-group comparison (Morris & Weber, 2010) and thus pre-determined people’s frog pond preferences to some extent.

From observers’ perspective, it tells a totally different story. Actors, as we discussed above, base their self-evaluation on inter/intra group comparisons because of their cultural background. Our findings show that there aren’t really any cultural differences across scenarios for observers: participants, regardless of cultural background, would prefer the big frog in a small pond in all studies as observers. That is to say, observers from both cultures place higher emphasis on one’s relative performance within their own group, or intragroup comparison (Yuki, 2003). Therefore, only European American participants’ self-evaluation criteria are in accordance with employers’ hiring standards.

The interesting part here is that in order to eliminate extra noises with regards to participants’ other concerns when making frog pond decisions, we primed our participants in the actor conditions to focus only on observers’ preference. In study 1, we asked participants to focus on their future employability; in study 2, we asked participants to focus on their future prospect of being hired by other banks; in study 3, we asked participants to focus on their future prospect of attracting clients. So, it’s fair for us to say that participants should be making their decisions standing in the observers’ shoes because actors’ ultimate goal should be to satisfy observers’ preference. But for Chinese actors, inter-group comparison dominates nonetheless. We originally hypothesized that this is because Chinese actors don’t understand observers’ preference, but our randomization across conditions clearly indicate that Chinese participants clearly know that observers emphasize more upon intra-group comparison because they themselves would show that preference when being put into the Observer conditions.

**Practical Implications**
Why do Chinese participants make such seemingly irrational choices? One potential explanation is an extension of the concept of the personal fable. Personal fable is an expression of egocentrism in adolescence, referring to people’s tendency to regard themselves as unique and special (Elkind, 1967). Our results in the Observer condition showed that Chinese actors know exactly what actual observers prefer because they exhibit similar preference when they are to make the choice in those roles. But when being put in the Actor condition, Chinese participants tend to misjudge these preferences. We assume that Chinese participants based their decision on their own preference because that’s the only information source they have when facing such a frog pond scenario. However, because of the effect of personal fable, they believe that their own preference is unique and special, and they assume that others won’t share their preference. They thus made the “wrong” decision.

Our findings helped Chinese actors rule out their concern regarding whether observers share their preferences and confirmed that observers prefer the big frog regardless of the ponds. Our findings can serve as a guide for Chinese actors when they face real world frog pond dilemmas, especially in college admission decisions. The hierarchical preference discussed above showed that the less professional the frog pond setting is, the more differences there are between actor and observers’ preferences. The least professional setting we examine is the college admission scenario and we found that actors, when taking future employability into consideration, prefer to be the small frog in the big pond whereas observers (employers) have the opposite preference. If Chinese actors use this finding as a reference, they will think over before reaching their final decisions and increase the chance of matching observers’ preference. This applies to international students as well since European American observers have the same preference as Chinese observers. As for European American actors, their preferences were in
accordance with observers’ preference all along and our findings further confirmed for them that if future employability is their primary factor when making frog pond decisions, they should stick to their current paradigm in making decisions.

**Limitation and Future Directions**

Our study established actors’ and observers’ rationales when facing frog-pond decisions across different dimensions. Cultural differences no doubt play an important role here: we can clearly see how participants with different cultural backgrounds differ in their emphasis when making these decisions. The discussion above majorly focused on the Actor condition. Let’s switch our scope here and turn to the Observer condition in the above studies. Our findings indicate that observers across different cultures place similar focus on intra-group comparison when making frog pond decisions. Past research has also established that intra-group competitions can better boost competence and self-efficacy in group settings (Bandura & Schunk, 1981). But our experiments are survey based or attitudinal, which naturally have a high potential capacity for bias (Grandcolas, Marusenko & Rettie, 2012). These potential biases can lead to attitude-behavior inconsistency (Fazio et al., 1982).

Researches had found that although attitude sometimes can be a good prediction of behavior, the strength of the attitude-behavior relationship varies by circumstances (Fazio & Zanna, 1978). If such attitude behavior inconsistency (Fazio et al., 1982) exists in the frog pond decisions, chances are that people’s real world decisions might deviate from their attitudes.

In 2016, researchers sent manipulated resumes to law firms in the U.S. and measured the call-back rate among different treatment groups (genders and backgrounds). It turned out that higher class male candidates receive a substantially higher call-back rate than other groups (Rivera & Tilcsik, 2016). Were we to add the big frog/small frog distinctions into this
experiment, would similar result appear?

Most such field/audit studies were manipulating the applicants’ ethnicities and gender. Researchers have found that ethnicity and gender can cause a huge influence on real-world admission decisions (Biernat & Zhao, 2017; Akinola & Milkman, 2015; Distelhorst & Hou, 2014). We propose that if we keep ethnicity and gender constant, and only manipulate our candidates’ background and relative performance, we might get attitude-behavior inconsistency as well.

Therefore, a potential future direction (Ongoing Study 4) is to examine whether observers’ real-world behaviors are in accordance with their attitudes as shown in our studies.

Conclusion

Jumping into a highly competitive environment sounds like a challenging and rewarding entry choice. However, this thesis unravels actors’ internal decision processes and observers’ preferences. By delving into cultural variations and underlying motivations behind actors’ choices and observers’ preferences, we inform a better understanding of people’s entry preference from both sides, which may carry significant downstream consequences. Chinese actors’ entry decisions are to some extent based on false speculation of observers’ preferences and may thus cause potential mismatches in the real world. European American observers should also deliberate over their decisions regarding potential cultural variations.

Adding to the adage that “it is better to be the big frog in a small pond” (Davis, 1966, p. 17), we show that, in the real world scenarios, most people should indeed strive to become the big frog in a small pond, although not all of us do.
References

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Appendix A

Sample Firm List for Study 4

China:

- Shanghai contemporary Amperex Technology Co., Limited (Energy)
- Shanghai ZHYT Advertising Co., Ltd. (Advertisement)
- Shanghai Silence Jewelry Fashion Co., Ltd (Fashion)

US:

- Elegus technology (Energy)
- You are here clothing (Fashion)
- AbelsonTaylor, Inc. (Chicago, advertising)
Appendix B

Sample University List for Study 4

China:

Shanghai Jiao Tong University
Peking University
Fudan University

US:

University of Michigan, Ann Arbor
Harvard University
University of Virginia
Appendix C

Email Sample for Study 4 Field Experiment

To whom it may concern:

My name is George Wolloch and I am a recent graduate from University of Michigan majoring in economics with a major GPA of XX.

I am particularly interested in the data analyst position for your firm and I would love to have more information about the position regarding skills expected and the qualification needed. I attached my resume in this email and would really appreciate if we can talk about how to better prepare myself to fit for the requirement of this position.

Sincerely,

George Wolloch
Appendix D

Exaggerated ratings outline of Study 4 Field Experiment

We expect a high preference from both cultures towards Big Frog in Small Pond. We expect Chinese, as compared to European Americans, will place more emphasis on prestige and thus result in a higher preference towards the “big pond”.

<table>
<thead>
<tr>
<th>Culture</th>
<th>Big Frog in Small Pond</th>
<th>Small Frog in Big Pond</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>China</td>
<td>80%</td>
<td>40%</td>
</tr>
</tbody>
</table>

*DV = response rate

*predict similar results for actual admission data*