

# A Derivative of Milgram's Paradigm——Obedience to a Classroom Authority from an Asian Perspective

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## ABSTRACT

This paper centers on an experiment which testifies the varying degrees to which students under distinct modes of education conform to a classroom authority from an Asian-centric perspective, a derivative of Stanley Milgram's experiment on the varying degrees of obedience people exhibit when confronting with an ethical dilemma. In this study, students are categorized into four different groups based on the type of education they have so far received, and they were asked to participate in both seat-changing activities and post-experimental investigations as a means of measuring their degrees of conformity to their teachers. A 2 Samp T-Test was conducted, proving that students who come from a Gaokao-oriented education would exhibit more obedience towards an epistemic authority than their peers who have been immersed in an international education; however, evidence suggests that cultural variations do not play a significant role here. The Milgram Paradigm on the topic "Obedience to Authority" is renowned, whereas such experiments that center on education are rare, not to mention from an Asian perspective. Therefore, this paper hopefully provides a new insight into the topic "obedience, authority, and education" with an Asian focus.

**Keywords:** *obedience, authority, education, Asian.*

## 1. INTRODUCTION

The renowned Milgram Paradigm on the topic "Obedience to Authority" centers on the degree of obedience people exhibit when confronting with ethically disputable choices provided by authoritative figures [1]. According to a cross-cultural review of Milgram's experimentation on the topic "obedience to authority", Milgram's study has been replicated either conceptually or methodologically in many countries globally, but has only been carried out experimentally in one Asian country——India [2]. Knowing that Asian countries, especially China, might possess a more collective and conservative culture with an emphasis on society rather than individuals, I am curious whether a derivative of Milgram's original experiment on obedience to authority would yield a different result in an Asian-centric setting. Having experienced various styles of education in both China and the United States and observed a potential yet subtle discrepancy in the degree of obedience to an authoritative figure in a classroom setting exhibited by students who come from different education backgrounds, my assistants and I were inspired to someday experimentally attest the subtle yet crucial distinctiveness in students' behaviors when confronting an epistemic authority resulting from varying degrees of academic rigidity and cultural influences.

In an attempt to study the varying degrees of conformity to obedience in a classroom setting with an Asian-centric perspective but still to be able to set up a comparison between cultures, I target the experimental units on high school students in both China and the United States. Experimental units are divided into four groups with each group being a typical representation of one of the four different education experiences. The four groups of participants are juniors who are currently attending a local high school in whether China or the United States, or having experienced both. The four different modes of education here include a Gaokao-oriented traditional Chinese education, an international curriculum in a particular department of a traditional Chinese high school, an American-styled education in a local high school in the United States, and an international style of education in an international school in China. The experiment is composed of both in-class activities and post-experimental investigations. In-class activities, an explicit means of measuring students' degrees of obedience, involve 20 rounds of seat-changing activities; similarly, post-experimental surveys involve both students and teachers filling out questionnaires regarding the topic in question.

Assume all conditions for inference are met. We will quantify students' explicit behaviors towards the assigned in-class activities and statistically analyze the results. We predict that students who are experiencing a

“Gaokao” mode of education will exhibit the highest degree of obedience when confronting with an epistemic authority, whereas students who attend an international school will show the least degree of conformity.

## 1.1 Literature Review

In his analysis “Some Conditions of Obedience and Disobedience” on his experiment regarding the extent to which people tend to conform to an authoritative figure, Stanley Milgram proposes that all organized hostilities can be viewed as a conflict between the authority, executants, and victims. Milgram generalizes the ethical dilemma in his well-known experiment regarding “obedience” into a simple problem: were an experimental unit being asked by an authority to hurt another person, under what situations would such experimental unit go along with this command and under what situations would he or she disobey [1]. Milgram conducted a series of experiments using electric shocks to figure out the extent to which human beings are able and willing to inflict pain on the victim when confronting with an authoritative figure and, simultaneously, being able to hear the agonizing screaming of the victim protesting. Though setting up a paradigm in modern psychology, Milgram’s original experiment is considered being ethically disputable and hampering the well-being of the participants. Jerry Burger in the Association for Psychological Science argues in his article “Replicating Milgram” that Milgram’s prototypic experiments ought never to be replicated due to their violations of today’s ethical standards, and he indeed modified the prototypes to a milder degree when conducting a variation of Milgram’s procedures [3]. Nevertheless, in this proposed derivative of Stanley Milgram’s prototypical research, my assistants and I completely obviated electronic shocks which severely inflict participants both mentally and physically; instead, we approached our focus on obedience to an authority in a classroom setting with mild experimental procedures, such as seat-changing activities and qualitative responses, that would not pose negative impacts on the well-being of participants.

In a cross-cultural review on the Milgram Paradigm, my assistants and I noticed that experiments on the topic “obedience to authority” have been replicated either conceptually or methodologically in many countries globally, but have been carried out only in India among Asian countries [2]. Perhaps, it is an opportunity now to initiate a research on the same topic but in a different background and perspective — a sinic perspective regarding obedience to authority in an educational scenario.

China has long been known for “Gaokao”, the National College Entrance Examination (NCEE), which serves as one of the few standardized criteria for higher education admission [4]. This three-day, written examination being held annually in June has been regarded by

many as the turning point of fate: an opportunity for examinees of “low” social status or from backwaters to gain a foothold in prosperous urban cities. Moreover, “Gaokao” is playing a role much more significant than a paper of hard-to-solve problems in Chinese society for decades. Zach Howlett regards “Gaokao” as the linchpin of meritocracy, in which the the ruling elites are selected on the basis of of “merit” through open and transparent competition, and the cornerstone of social stability and the metric of political legitimacy [5]. According to a qualitative research on Chinese undergraduates who are now in university and who have gained their admission tickets through “Gaokao”, undergraduates reveal that the preparation for “Gaokao” started as early as they entered primary schools and this standardized means of evaluation hampered the development of talent to a certain degree. Some students felt their lives were fraught with misery when locking themselves in a single room arduously doing problem sets in an attempt to achieve the best test score on “Gaokao” [6].

Chinese students and their teachers maintain a ritualized relationship in which teachers intervene students’ learnings and facilitate their acquisitions of knowledge. Such interventionist teacher can be deemed as authoritarian by American standards [7]. It is reasonable that because of the pressure from “Gaokao”, Chinese students perceive teachers as even more paramount authorities who transmit them knowledge that enhances their learnings and, therefore, test scores. Most Chinese students do not perceive teachers as opposing authorities; rather, they express their gratitudes to stringent rules and rigorous standards that their teachers impose on them as long as the outcomes are satisfying (Gaokao). American classroom, however, often encourages students to accommodate external knowledge into their own structures independent of those of teachers [7]. In their analysis on the values, goals, and identities of American education, Stemler and Bebell compared 111 mission statements from a variety of distinct middle schools and high schools in the United States, ranging from regular public schools to Montessori schools or Waldorf schools, and notably discovered that nearly all schools that they examined embrace a mission statement that highlights students’ cognitive and emotional developments [8]. A large number of mission statements from various types of school, though being subtly different, embrace a goal of cultivating their students to become citizens who possess responsibility, intellectual curiosity, creativity, etc [8].

Another group of students worth mentioning are those who are born in foreign countries but are attending an international school in China. Naturally, they are receiving an international style of education but we assume that because they are currently living in China, where a collective culture might subtly influence their behaviors, their conformities to teacher worth further exploration. Furthermore, we incorporate the group of students who

attend an international department of a traditional Chinese high school because we assume that the “Gaokao”-oriented general atmosphere in the school they attend might clash with the liberal atmosphere in their international education, which might produce significant outcome in terms of obedience to teacher.

Apparently, there is a sheer contrast in students’ perceptions of teachers whether as authorities between China and the United States. The collectivism culture of Chinese society and the extreme pressure created by standardized “Gaokao” as a whole promote teachers to become paramount authorities in a classroom setting, whereas an education that emphasizes both cognitive and emotional development in the United States endow more freedom and individuality to students [7]. To compare Chinese education system with that of America is not to stress the superiority or inferiority that each may possess, nor to make any subjective judgement. As Stemler and Bebell indicated, there is no single educational philosophy or approach that can “best” suit a diverse population with wide-ranging aspirations [8]. As students who have experienced multiple types of education in both China and the United States, my assistants and I, therefore, aim to initiate the following proposal intending to explore the extent to which students under different educational backgrounds conform to an authority in a classroom setting.

In the end, we were inspired from Sadik and Yalcin who phenomenologically researched on students and teachers’ perceptions regarding the definition of disciplines at school, the results of which could not provide generalized conclusions of a qualitative research but could shed light on experiences and examples [9]. We derived four themes from their research and employed as indicators of students’ psychological well-

being and the tendency of which students obey to their teachers.

## 2. EXPERIMENT

### 2.1 Preparation

We identify students (experimental units) into four groups:

1. Chinese students in a traditional Chinese high school who have never experienced a cultural variation in their educations and who are determined to score remarkably high on “Gaokao”, the only standardized entrance exam and admission requirement for Chinese higher education [10].

2. Chinese students who are currently striving in an international department of a traditional Chinese high school, whose admission can only be gained by “Zhongkao”, the high school entrance examination in China, and who are receiving an international, perhaps slightly localized, system of education.

3. Chinese students who have completed the nine-year “Compulsory Education”, in China but are currently attending a local high school in the United States.

4. “Chinese” students who were born in foreign countries but are currently attending an international school in China which admits only foreigners.

Table 1 below shows the categorization of the experimental units based on their prior experience in education. Systematically, experimental units are classified into four groups based on the type of school they have attended. Table 2 below shows the categorization of experimental units based on whether they have experienced cultural variations in their prior education experience.

**Table 1: Categorization of Students (Experimental Units) Based on Their Prior Experience in Education**

Group Serial Number	Categorization
1	“Gaokao”-oriented Education
2	International Department in a “Gaokao” School
3	US High School after “Zhongkao”
4	International School in China that admits Foreigners only

**Table 2: Categorization of Students (Participants) Based on Whether They Have Experienced Cultural Variations in Their Prior Experience in Education**

Group Serial Number	Education Style	Cultural Variation
1	“Gaokao”-oriented Education	No
2	International Department in a “Gaokao” School	Yes
3	US High School after “Zhongkao”	Yes
4	International School in China that admits Foreigners only	Yes

Each of these four classifications represent a typical group of students under various modes of education, and we assume that they will exhibit a varying degree of obedience to authority, namely, teachers. Specifically, we propose that education styles and cultural variations in students’ lives would likely result in a discrepancy on the extent to which they conform to authority. Students who attend a traditional Chinese school throughout the course of their education and who undergo no cultural variations in their education experience would exhibit the highest degree of obedience to authority among the four experimental groups. Students who have more or less experienced a change in education style would exhibit the second highest degree of conformity. Ultimately, students in the last group, the ones who have not experienced an “exam-oriented” education would demonstrate the least degree of obedience when confronting with an authority.

We assume experimental units to be high school juniors (or internationally equivalent) because most junior students have already went through the transition from their previous education (middle schools or internationally equivalent) to high school lives, unlike freshmen students or sophomore students who might still be adjusting to high schools, and therefore would be the most experimental friendly groups in which we can be certain that the varying degree of obedience they exhibit is the result of a distinct system of education instead of maladjustment to high school lives. We assume the epistemic authority in a classroom setting that the experiment would take place is school teachers who routinely teach the experimental units and work at the schools in question to maintain an authenticity in students’ behaviors. Were the “authority” switched to an experimenter who is

an utter stranger, students would likely to have performances deviated from normality.

We tend to idealize our proposed experimental mechanism and maximize potential findings on obedience to an epistemic authority under various systems of education by controlling variables. We assume that cultural variations in education and education mode are the sole indicators in question; conversely, factors such as parental guidance, affluence per capita, personalities, previous life experiences, and so forth do not play a major role here. By pointing out “previous life experience”, I refer to unique and distinctive life experience or personal anecdotes that might seem to contribute to the distinctiveness in characters and behaviors.

To retain a primitive state of students’ behaviors and reactions, we assume this experiment to be single-blind: students would not be informed with any details or the real purpose pertaining to this experiment until post-experimental surveys are involved. Teachers as epistemic authorities would be notified two weeks in advance regarding experimental procedures and would receive proper instructions on the seat-changing activities; nevertheless, the real purpose of the study would be kept unknown to teachers and experimental procedures would be considered as part of those teachers’ occupational responsibilities to avoid teachers behaving abnormally. For privacy and legality concerns, experimenters would notify the school principal, deans, and parents three weeks prior to the start of the experiment to petition for permissions. Experimenters would also contact school security and technology staff to petition for the access of

monitoring cameras to record the in-class activities for research and analysis purposes.

We would take randomly select a high school in a district and randomly select a class of size 30 or greater to assume randomization and normal distribution. Each eligible high school in a given district would be given a serial number, and a random number generator would be employed to select the high school in question. Each sample ( $n=30$ ) is known to be less than 10% ( $n < 10\%N$ ) of all high school juniors. Therefore, the central limit theorem (CLT) can be applied and 2 Samp T-Tests between different categorizations can be employed to draw further statistical inference.

## 2.2 Method

To figure out the impact of education background on obedience, we divide our experiment into two separate parts: in-class seat-changing activities as a means to observe overt disobedient behaviors and post-experimental surveys that center on latent mental activities. For in-class activities, we employed the seat-changing approach proposed by Todd Bridgman in his research on the dynamics of power, obedience, and resistance in a classroom restructure [11]. For investigations afterward, we devised two original questionnaires for both teachers and students, respectively.

### 2.2.1 In-class Activities

The seat-changing activity refers to an approach first proposed by Todd Bridgman in his research on the dynamics of power, obedience, and resistance in a classroom restructure to measure [11]. For our purpose in a high school classroom, we modified the original experimental setup into a more experimentally beneficial version with repeating the rounds and adding more stages.

Specifically, there will be four stages of seat-changing activities in total, each of which consists of both a natural sequence and a reverse order. The four stages involve seat-changing activities base on alphabetical order of students' family names, first names, months of birth, and years of birth, respectively; likewise, the reverse order of each will also be implemented. Students will be commanded by their teacher (the authority) to switch their seats based on instructions and will be told that doing so is part of today's lesson plan and will enhance their learning. However, students might soon find out that such activities are frustrating and time-consuming and would be reluctant to proceed, which comes to the point where we would observe overt disobedient behaviors, record, and measure. Students will be told that they should move as quickly as possible, and they will not be told that there is neither penalty nor reward for the agility of their actions.

Originally, students are in their primitive routine and would be sitting in their yet unchanged seats. The first stage of the seat-changing activity is that the authority will ask students to switch where they seat based on the alphabetical order of their family names; that is, from an alphabetical order of A to Z, students whose family name starts with the letter "A" would be required to sit in the left most corner while the one whose letter "Z" would have to seat in the right most corner in the classroom. The commander will not provide a roster with alphabetical order of names on it, which indicates that students have to figure the proper seat arrangement out on their own. The camera in the classroom will record the process with images and audio clear enough for experimenters to identify facial expressions, body movements, and languages of students to deduct the level of their reluctance towards the sudden seat-switching task. The time taken of the entire process starting at the moment when the instruction is given to the moment when the last student is seated properly will be recorded for later comparison across different stages. In general, we assume that the more round the activity is to be conducted, the less willing are the students to obey the "rule". Here the torture comes because students will be commanded to switch their seats again; however, this time, the seat arrangement has to follow the reverse alphabetical order: the one who originally sits at the frontmost left has to switch to the hindermost right.

The second stage of seat-changing involves the alphabetical order of students' first names; that is, students have to switch their seats again. Soon after, like the instruction provided from stage one, students have to switch their seats again based on the reverse alphabetical order of their first names; likewise, their actions will be timed and observed for future deductions. Our experiment will then proceed to the third stage of seat-changing, which is based on the month of birth from January to December; similarly, the reverse order would be to switch seats based on birth month from December to January. Students have to arrange each other's month of birth to a correct numerical order by asking each other. There will not be any "explicit" penalty for a wrong numerical arrangement of birth month, neither would students be notified that there is not any penalty. However, researchers would take into account the correctiveness of the arrangement and rearrangement of seats based on students' actual numerical birth months. Ultimately, the final stage of seat-changing involves sitting in clusters based on the year of birth; that is, students who are born in the same year would be seated in one cluster of seats. Reversely, the second part of stage four asks students to be seated in different clusters based on year of birth.

What worth noticing here is that the various designs of the seat-changing activity are of no practical significance other than experimental and research purposes. Those seat-changing activities are nonacademic and therefore do not require academic abilities, which would

largely eliminate the differences in the degree of obedience resulting from variations on academic performances. The alphabetical order of family names and first names and the numerical order of birth months and years have no practical implications in real lives, but here act as frustrating and time-and-energy-consuming tasks for students as targets in the observation of “reluctance”.

### 2.2.2 Post-Experimental Investigations

By quantifying disobedient behaviors employing the above-mentioned methodology, we are evaluating only students’ explicit reactions to authority; nevertheless, covert mental activities would also contribute to our findings. When the final stage of seat-changing is completed, or when the last students give up tolerating, the designers of the study would come into the classroom for explanations. Students would be informed the purpose of the study and would be asked to fill out a questionnaire on authentic self-evaluations. Simultaneously, teachers will be distributed with a questionnaire concerning their perspectives on students’ behaviors in both students’ routine school lives and their behaviors in the experiment conducted just now. Data collected from the survey on both students and teachers would be kept confidential for research purposes only.

Post-experimental surveys in the form of questionnaire include both qualitative and quantitative questions. Prior to designing questions for the survey, we referenced Sadik and Yalcin’s study on discipline perception and discipline problems from the perspectives of

high school teachers and students, and compiled several key themes in their study as templates for our investigation [9]. According to Sadik and Yalcin, we devised questions for teachers and students separately.

For students, our focus would primarily stick on the seat-changing activity itself. First, students will be asked to provide qualitative explanations on their general feelings in the course of the experiment and on whether they are willing to obey the orders from the authority. Such questions would be presented on the questionnaire as a free-writing question and will leave no effect on students’ school grades. In addition, there will be a multiple-choice questionnaire for self-evaluation. Table 3 shown below is the questionnaire we devised to evaluate students’ degrees of obedience to their teachers based on their behaviors in the seat-changing activities happened just now and their routine conformity behaviors outside the experiment according to self responses. We were inspired from Sadik and Yalcin who phenomenologically researched on students and teachers’ perceptions regarding the definition of disciplines at school, the results of which could not provide generalized conclusions of a qualitative research but could shed light on experiences and examples [9]. Of their eight themes, we selected four themes that best suit our experiment and devised a student questionnaire: obeying the rules, respect towards others, positive personality features, and education [9]. We wanted to truly walk into students to discern how they actually feel about obeying to rules and to authorities.

**Table 3: Student Questionnaire on Obedience to a Classroom Obedience and Self-Evaluation on Well-Being**

1. Select one of the following features that you believe best describes you.	A. Benevolent B. Honest C. Diligent D. Strong-minded E. I prefer to withhold my opinion.
2. Select one of the following statements that represent your voice regarding obeying to a rule.	A. Students should follow all rules constituting the educational system they are in. B. Students should follow all rules that aim to create a structured learning environments. C. Students should follow all rules that their peers are following. D. Students should follow all rules that guide them to behave in a certain way in society. E. I prefer to withhold my opinion.
3. Select one of the following statements that represent your voice regarding education.	A. To receive an education means to learn. B. To receive an education is to form conscience. C. To receive an education is to develop yourself. D. To receive an education is to be socialized. E. I prefer to withhold my opinion.

4. Select one of the following statements that represent your voice regarding self-respect and respect towards other people.	A. To respect others is to respect yourself. B. Respect is a mutual instead of a one-way process. C. Respect is a civic duty that everyone ought to perform. D. Respect is an act of self-reflecting and thinking of other people. E. I prefer to withhold my opinion.
5. Briefly discuss how you feel like obeying to an authority in a classroom.	

The authorities, likewise, will also receive a post-experimental survey as a means of analyzing students' behaviors perceived by teachers. They would be asked to provide qualitative responses on their feelings of the obedience rate of students in the long-run. They would also be asked for brief discussions of students' behaviors in routine school lives as a reference to our study. Table 4

is a sample of the proposed questionnaire. Once again, we referred to Sadik and Yalcin and used two themes from their studies: obedience to rules and perceptions of education, where we wanted to find out teachers' latent opinions on the commands they ordered on their students [9].

**Table 4 Teacher (Authority) Questionnaire on the Topic of "Rules" and "Education"**

1. How do you evaluate the essence of a "rule" in a classroom?	A. A classroom rule might sometimes curb students' creativities and individualities while ensuring necessary conditions for imparting knowledge. B. A classroom rule aims to manage the teaching process (imparting knowledge) C. A classroom rule aims to arrange students' behaviors and to prevent irrelevant conducts, D. A classroom rule aims to promote students to be preoccupied with their studies. E. I prefer to withhold my opinion.
2. What defines "education" from your perspective?	A. To educate is impart knowledge that will be assessed on standardized tests and the "test" devised by life. B. Education is about the formation and development of conscience. C. Education is a socialization process. D. Education is the process of becoming a person of erudition and conscience. E. I prefer to withhold my opinion.
3. Based on your observation, does the level of conformity your students exhibited in the experiment just now deviate from that of normality? If so, by how much?	A. Yes, the level of conformity does deviate a lot. B. Yes, the level of conformity does deviate moderately. C. Yes, the level of conformity does deviate slightly. D. No, the level of conformity does not deviate from regularity. E. I prefer to withhold my opinion.
4. Please briefly discuss your attitudes, experience, and observations regarding how students conform to instructions you provided daily.	

## 2.3 Measurements

Measurements on disobedience are divided into two separate parts: the "obedience-disobedience" numerical scale that quantify and concretize the abstract concept "disobedience" and the time students persisted in seat-

changing activities. The frequency of disobedient behaviors is correlated with numerical rate of disobedience and corresponds to specific values on our "obedience-disobedience" scale based on type and severity of behaviors. In general, we identify students' actions and reactions in the course of seat-changing into two categories: compli-

ance and resistance. We define compliance here as following the instructions by the epistemic authority, cooperating with classmates to figure out appropriate seat arrangements, and switching seats successfully. On the other hand, resistance refers to disobedient behaviors include but not limited to eccentric countenances, sluggish motion, verbal complaints, outright reluctance, and (utter) disengagement.

First, a numerical scale ranging from zero to three is devised to quantify students' disobedient behaviors. Ranging from zero to three, the more obedient the students, the smaller the value on the scale. The more disobedient the students, the larger the value presented. We regard value "0" as being very obedient, "0.5" as being obedient, "1" as being moderately obedient, "1.5" as be-

ing slightly disobedient, "2" as being moderately disobedient, and "3" as being disobedient. Specifically, we categorize disengagement (quitting the activity), possibly accompanied by disrespect and extreme attitude, as a "3" on our scale, representing the most disobedient behaviors that can possibly happen in the scenario of a classroom activity. A "2" or "2.5" would be physical reluctance to seat-changing, such as sluggish motion, depending on severity of the specific action. A "1" would be verbal complaints such as murmuring and slightly vituperative languages. Penultimately, a "0.5" would be exhibiting eccentric facial expressions yet still keeping silence, or almost silence. Finally, a "0" signifies being obedient to the activity and following the instructions. Table 5 below is a scale that summarizes the extent of obedience to which students exhibit towards an authority and corresponding phenomena.

**Table 5: Obedience- Disobedience Scale with Corresponding Degrees of Conformity and Phenomena**

Obedience- Disobedience Scale	Degree of Conformity	Phenomena
0	Being very obedient	Properly following instructions
0.5	Being obedient	Exhibiting eccentric facial expressions
1	Being moderately obedient	Verbal complaints: murmuring and (or) chatting
1.5	Being slightly disobedient	Verbal complaints: slightly vituperative languages
2.0	Being moderately disobedient	Sluggish motions
2.5	Being disobedient	More severe physical reluctance
3	Being very disobedient	Extreme attitudes or quitting

Moreover, the time students persist in the task and the number of stages of the seat-changing activity they complete will also account for their varying degrees of obedience to authority. A longer time persisted indicates a higher degree of obedience, while a shorter time persisted suggests a relatively lower extent to which students obey an epistemic authority. We do not, however, specify a time range here that may represent a level of obedience; instead, were the experiment carried out in actuality, a comparison across the four modes of education can act as a potential indicator.

## 2.4 Predictions

In our hypothesis, we assumed that Chinese students who have undergone no cultural variations in their education experience and who aim to score remarkably high on "Gaokao" would exhibit the highest degree of obedi-

ence when confronting with an epistemic authority. Because our proposed experiment has not yet come to practicality, we randomized some data for the purpose of predication. We conducted a 2-Samp T-Test for each pair of groups. By using all three common significance levels, our results are as following:

Six different combinations of 2 Samp T-Test that each represents a comparison between two distinct educational modes reveal that our hypothesis is generally proven right. Specifically, a p-value of roughly 0.1285 that is greater than common significance levels suggests that students who study in an international department of a traditional Chinese high school have a higher rate of being disobedient compared to their peers in a "Gaokao"-oriented education. A p-value of approximately 0.1354 for Group 2 and Group 3 indicates that students who transitioned from a nine-year compulsory education to the United States appeared to be less com-



pliant than those in an international department of a traditional Chinese high school. Similarly, a p-value of about 0.2536 suggests that students who have never experienced an exam-oriented education exhibit more disobedience than those who once received compulsory education. A p-value of about 0.154 for Group 1 and Group 4 indicates that students in a Gaokao-oriented education are more obedient than those who always attend an international school. Likewise, the result for a 2-Samp T-Test conducted between Group 2 and Group 4 suggests that students who have never experienced an exam-oriented education are less complaint to an epidemic authority than those who once experienced “Zhongkao”, the three-day standardized written examination for senior high school admission in China [12].

However, result obtained from 2 Samp T-Test for Group 1 and Group 3 reveals a p-value of roughly 0.025, which suggests that students in a “Gaokao” education indeed do not exhibit more obedience compared to those who transitioned to the United States after completing the nine-year compulsory education in China.

We categorize students in Group 1 and Group 4 as those who have not experienced a change in education styles and experience; we identify students in Group 2 and Group 3 who transitioned from traditional Chinese education to an international style of education into another category. However, there is not sufficient evidence

to conclude that cultural variations in education play a role that influences the degree of obedience to an epistemic authority.

Nevertheless, there might also be possibilities that our predications of experimental results were counterintuitive to our hypothesis; that is, student from “Gaokao” system do not necessarily exhibit a higher degree of obedience to an authority, or there is no significant difference among the four groups of experimental units regarding the extent of obedience. In this scenario, a larger sample size would always be more suitable in making inference about the population. Also, we would scrutinize experiment setups and figure out potential weaknesses based on empirical evidence.

Table 6 below enumerates the hypothetical data input to generate results expected. The hypothetical data are encoded according to the degree of obedience they would have exhibited were the actual experiment conducted. The last row of Table 6 comprises the arithmetic mean of the data in the respective group. Ideally, students from Group 1 (Gaokao-oriented students) would exhibit the highest degree of conformity to a classroom authority, which corresponds to the smallest mean value. Table seven below enumerates the p-values generated from 2 Samp T-Test between different groups. Table 7 enumerates the p-values generated by the hypothetical data in Table 6.

**Table 6 Hypothetical Data Input**

Group 1	Group 2	Group 3	Group 4
0	1.1	1.3	2
1	1.1	1.4	1.8
1	1.1	1.1	0
2	1.3	0	1.8
2	2	2	2
1.1	1.2	0	1.7
0.5	0.9	1	1.9
1.3	0.8	1	2
1.2	0.7	3	0.3
1	1	2	0.9
1	1.1	0	0
1	1.5	2	1
1.1	1.6	2	0.38
2	0.8	0.9	3
0.5	1.2	1.6	2
2	1	2	3

0	0.9	1	0
1	3	2	1
0	1.2	2	1
1	1.1	2	1
1	1.1	0.9	0.3
1	1.1	1.8	1.6
1.2	1.3	2	2.8
1.9	1.4	1	1.4
1.8	0.7	2	1
1	2	2	0
1	1	2	1
1	2	0.8	1
1	1	1	1
1	1	0.7	1.5
1.0866667	1.24	1.4166667	1.2793333

**Table 7 P-values Generated From 2- Samp T-Tests Based on Hypothetical Data Input in Table 6**

P-value of 2 Samp T-Test for Group 1 and Group 2	0.12853836
P-value of 2 Samp T-Test for Group 2 and Group 3	0.135353433
P-value of 2 Samp T-Test for Group 3 and Group 4	0.2535845915
P-value of 2 Samp T-Test for Group 1 and Group 3	0.0252708441
P-value of 2 Samp T-Test for Group 1 and Group 4	0.1543934636
P-value of 2 Samp T-Test for Group 2 and Group 4	0.4141932823

### 3. CONCLUSION

#### 3.1 Contribution

Penultimately, were we able to verify the above-mentioned predictions based on empirical data, our contributions would be clarified as follows. First, our proposal can be regarded as a derivative of Milgram's experiment on obedience which aimed to study a pattern of obedience and disobedience people exhibit when confronting with morally disputable choices commanded by authoritative figures [1]. In our design, the relationship between teacher (authority) and students resemble the relationship between an authority, as the one in Milgram's original design, and the ones who obey. Second, an Asian-centric perspective on the influence of education on obedience will be provided. According to a cross-cul-

tural review of the Milgram Paradigm, Milgram's original experiment on obedience to authority have been replicated in numerous countries but has been devoid of an Asian-centric perspective [2]. Moreover, this research provides the study of "obedience to authority" with a cultural-educational angle, offering new insights on both culture and education. In the end, were the proposal comes to reality, social- educational reflection would possibly be made concerning the difference on characters resulted from various modes of education.

#### 3.2 Limitations

Finally, we cannot ignore the potential weaknesses that our proposed experiment brings about. In general, three limitations are to be considered. First, to focus on the effect of education style on the degree of obedience, we have controlled variables in the course of our experi-

mentation. Parental guidance, personalities, level of affluence, and unique previous life experience are not accounted for. Furthermore, as every study would not be impeccable, we cannot guarantee that both the authority and the conformists would perform with utmost authenticity.

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