Implicit Measure of Chinese Students Make Decisions on the Major Choice

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Abstract. Decisions are important, which determine the path of the people's life. Due to the social environment and other factors, Chinese students generally have less thoughtful consideration on their own. Also, Chinese culture brings the students strong persuasions from the explicit environment, many students involve in the field they have no interests. This study discusses implicit measure as an approach that help the students find out themselves. Implicit measures are measurement techniques that don't require verbalization and that enable to study cognitive or affective processes that take place at the level of system. The study firstly discusses of decision-making, the effect of implicit on making decision, and investigate implicit social cognitive, implicit measures to evaluate implicit measure. The research also explores the influences of Chinese culture on Chinese students' decision making. The research focuses on the implicit measure regarding the Chinese students' choices on major studying. Compare to the verbalized guidance, implicit measure could help the students assess to their internal interests in a spontaneous way, and undertake deliberate consideration. This study aims to evaluate the implicit measure of decision making and reduce the explicit persuasions. The implicit measure is not the best solution and only can be used as referenced information, and the implicit measure should be applied step by step. The personal interest plays a significant role in their decision making, and they should have a grasp of it. Besides, the orientation and selection standards of the whole education system also need changes in order to develop the independence of Chinese students, even though there are complex economic, political, population and geography problems.

Keywords: implicit measure; Chinese students; major choice.

1   Introduction

As an important decision, major choice has great impact or even decides the students' future. Generally, deliberate consideration is mandatory before making the decisions. However, the Chinese students have less ability to make thoughtful consideration on their own due to the lack of comprehensive development. In the meantime, the Chinese culture brings the students strong persuasions from the explicit environment. Conse-

quently, many students have to study at least 4 years on the subjects they don't like. Furthermore, it has negative impact when those students enter the society.

Although the Chinese government has realized this problem, there is no possible to change the whole system from the very beginning immediately because of the country's special current situation. However, published expert books regarding the major choice are not enough to solve the problem. Because the most important thing is how the students can understand or have clues about what they may interest? Knowing about themselves, then the students could have standing points to compare with other explicit persuasions.

Implicit measure is discussed in the paper as an approach could help the students find out themselves.

Starting with the discussion of decision-making, the effect of implicit on making decision appears. In order to better evaluate whether implicit measure is suitable for this topic, implicit social cognitive, implicit measures are further investigated. The Chinese culture is also discussed because it's an important reason for forming the problem.

After all, implicit measure is not applied as a final decision but an approach could offer referenced information base on the students' spontaneous responses while reducing the explicit persuasions.

2   Literature Review

2.1   Decision Making

There are always moments people need to make decisions. Decisions are important especially some of them will determine the path of the people's life. Determinations about whether to enter higher education or not- and what major to study- are part of this category (Moogan et al., 1999)[22]. Numerous previous studies offer a range of approaches or models to help people make decisions rationally and enable the options to be tested (Hindess, 1988 and Bazerman, 2006)[14][1]. However, Simon (1955)[25] doubted whether humans are able to perform the complex operations of evaluation and information integration prescribed by the rational model of choice[25]. People usually make decisions under certain restrictions rather than in a perfect circumstance. For instance, limited time, less reliable resources and restricted ability to deal with complicate information. According to Bazerman (2006, p. 6)[1], "Rather than examining all possible alternatives, they simply search until they find a solution that meets a certain acceptable level of performance"[4].

How far until the "certain acceptable level of performance?" In order to understand the factors influence the decision made by the students, researchers conduct a lot of studies and conclude some factors that make the students feel "acceptable". Malgwi, Howe and Burnaby (2005)[19] found out that the most important factor was the interest in the major. The second most influential factor for women was aptitude in the subject while men took major's potential for career and job opportunities more serious; Downey and McGaughey (2009)[8] investigated the factors from internal and external aspects. Internal stands for the personal beliefs and a self-assessment while external

influences refer to the influential brought by the other people like college instructors, parents, friends; Social cultural background was pointed out by Moniarou-Papaconstaninou et al. in 2010 and linked to the students' socially acquired ability to recognize what may be promising regarding possible future[21]; The factor "Push-pull" raised by Mazzarol and Soutar in 2002 talking about the policies or approaches undertaken by the source and the host country or organization to initiate the students' decisions[20].

Although the factors that influence the decision and the degree of acceptance or satisfaction are plentiful and various from people to people, in a word, young people's thoughts and actions are guided under a range of implicit or sub-conscious attitudes and approaches to life (Hodkinson, 2004)[15]. Under this circumstance, "decisions are made base on visceral gut reaction that arises spontaneously and for which only the resulting preferences rather than deliberation, and not the process-giving rise to it, is consciously accessible and verbalizable" (Bodenhausen and Todd, 2010, p. 293)[2].

2.2   Implicit Social Cognition

The discussion of the implicit social cognition could trace back to very old time together with the psychology and philosophy. Nevertheless, the debates regarding implicit in the modern age mainly consist two themes: the differences between automatic and controlled cognition then the dichotomy between explicit and implicit processes (Payne and Gawronski, 2010)[23]. In 1995, Greenwald and Banaji defined the implicit social cognition refers to thought processes that are influenced by past experience and affect current processing but lack introspective awareness.

With the development of this subject, there are many models built by the researchers to investigate. Some of them were raised towards specific circumstances in social psychology. For instance, the elaboration likelihood model (ELM) regarding how attitudes are formed and influenced under different conditions and communications. Built by Petty and Cacioppo (1986), ELM possesses two ways to persuasion[24]. When the subjects could deal with the information logically with both the motivation and the ability, persuasion occurs via the central route; On the contrary, when the message recipients could not handle the message with enough motivation or ability, persuasion happens through the peripheral route. Heuristic systematic model (Chaiken, 1987) also belongs to persuasion mechanism[5]. There are other several classical models developed from other aspects. For example, MODE Model (Fazio, 1990)[10], Dual- attitude Model (Wilson et al., 2000)[29] and Dissociation Model (Devine, 1989)[7] are linking attitude and behavior. Later on, models are shifted toward generalized in terms of a common series of processes underlying a variety of circumstances that are assumed to be domain- independent, for instance, Cognitive- Experiential Self- Theory (Epstein, 1994)[9]; Associative versus Ruled- Based Process (Smith and DeCoster, 2000)[26]; Reflective- Impulsive Model (Strack and Deutsch, 2004).

Different models are undertaken according to different circumstances complementary with suitable implicit measures.

2.3   Implicit Measures

"Implicit measures are measurement techniques that don't require verbalization and that enable to study cognitive or affective processes that take place at the level of system 1" (Trendel, 2012)[28]. Implicit measurement, although indirect in nature, should differentiate with other indirect evaluations, such as projective measures of personality. Projective personality tests are based on the idea that the structure an individual places on ambiguous stimuli reflects aspect of the self while implicit measurement is rooted in social cognition (Haines and Summer, 2006)[13].

What are the differences between implicit measure and traditional measurement? Traditional measures are tightly connected with system 2, which is controlled, verbalized and effortful process. This kind of processes could be easily influenced by social desirability. For example, the society ethical judgment and who undertake the measures. Thus, a participant can intentionally try to deceive the researchers and offer an outcome that satisfied the social expectation while implicit measures promised to provide a less biased estimate of attitudes and cognitions (Houwer, 2005)[16].

When the subjects do not capable of undertaking deliberate consideration because of limited information resources or self-acknowledgment and powerful influential brought by others. Implicit measures are more suitable than traditional measures to evaluate the outcome, which is base on the spontaneous response rather than estimate answers.

2.4   Chinese Culture Characteristics

Culture is an important factor to facilitate and influence the decision-making. The Chinese culture is very different with the western thus has caused a wide attention in recent years. In order to provide a complementary basement for this topic, the introduction regarding the culture characteristics is very necessary.

The Chinese culture is complex due to the long history and wide geography. And it is undergoing significant changes due to the rapid economic development. However, there are some characteristics still basic and essential, which are Moderation and Harmony, relationship- oriented and mutual dependence. Those characteristics decide the process when the Chinese making decision is more depending on the holistic environment rather than personal consideration.

According to Choi et al. (1999)[6], East Asians endorse a more holistic theory of causality compared to Westerns. From their aspects, everything is connected and mutual dependent. Furthermore, Wong- On- Wing and Lui (2007)[31] conducted a research and found that the Chinese were more sensitive to situational factors and less preference to attribute fraudulent behavior to individual dispositions. Even though, Briley and Aaker (2006) [3]argue that culture- based differences depend on how a person processes information. These differences caused by the culture are supplemented by more deliberative processing[17]. However, the premise is the person should have sufficient personal knowledge on the topic, which is exactly an issue the Chinese students are facing.

Under this circumstance, the deliberate consideration can cause decision makers to place too much weight on those stimulus characteristics that are most accessible, plausible, and easily verbalized which induce the quality diminishing (Wilson and Schooler, 1991)[30].

3   Research Question Presentation and Justification

The research question worthy of discussion is the implicit measure regarding the Chinese students' choices on major studying.

Different with the developed education system, the Chinese education organism is very inflexible and described by spoon- feed. Instead of be encouraged to be diversity, freedom and individually, the Chinese students are used to rote memorization and intense competition, which only focus on marks. The marks orientation largely derives from the Gaokao (college entrance exam) system. Gaokao is too important for the students and parents to take care other things, which may distract the attention from the study. Inheriting from the history, the Chinese believe that succeed in Gaokao is the only way to improve their life. Consequently, the students in China can't obtain enough opportunities to develop their personal interests. Alternatively, they need to focus and study hard on the several subjects, which will be tested in Gaokao. Besides this, they have limited knowledge about the others.

4   Conclusion

At the same time, as the paper discussed previous about the characteristics of Chinese culture, the reason why the Chinese parents take the marks so serious is also because of the social relationship and mutual dependence. The performance of their children on study (marks) generally decides their "face" (reputation) in front of other people. Besides marks, they also like or are forced to compare the level of the college and the major whether has potential in the future.

Based on the phenomenon showed above, the dilemma situation happens when the students need to make choices on their major. Lacking of sufficient and comprehensive development, the Chinese students usually do not sure even have no idea about what they want to do in the future when they get used to hard study.   Even obtaining sufficient time, they can't undertake deliberate consideration because the lack of self-acknowledgement and assess ability on the related information[18]. Instead, their parents or trustful teachers make the decisions for them. Nevertheless, the most important consideration for parents and teachers are the reputation of the colleges and the potential of the majors rather than the students' interests.

However, the consequence has become a trouble in recent years. More and more college students start to complaint and even against the college and society. According to a national research, 42.1% university students not satisfied with the major they chose and 65.5% students wish to change the major (Sohu, 2012)[27]. Unfortunately, the inflexible education system cannot easily offer the students chances to change the major after making the decision. Most of them have to spend at least 4 years on the

major they don't like. And it also has negative influence when those students graduate from the college and enter the society. Because they do not have a reasonable position for themselves from the beginning and neither don't know what fit for them for the career and lose the opportunity to learn.

In order to ease the problem, the Chinese government and education institutions published professional books to guide the students and the parents to choose the right major which mainly focus on the introduction of each college and major. Unfortunately, this is not the best solution and only addresses symptoms rather than root causes.

There is a must to change the orientation and selection standards of the whole education system in order to solve the problem. However, the complex economic, political, population and geography problems in front of the government are barriers need a long time to cover.

Under this situation, helping the Chinese students understand their personal interests before making decisions is one of the most accessible approaches. As the previous research shows, deliberate consideration should base on sufficient self- acknowledgment, time and ability to process complex information. However, the Chinese students still far away to take the consideration in a thoughtful way. At the same time, they will take too much weight on the influential from other people because of the moderation and harmony culture. Implicit measures could get automatic response and spontaneous clues by lowering the other explicit persuasions.

Practically, the implicit measure is not the best solution and only can be used as referenced information. Based on the presented problem, the implicit measure should be applied step by step. Currently, it is better to measure the students' interests on each major or the career behind the major firstly rather than offering the final decision. IAT, introduced by Greenwald et al[11][12]could be a recommended measure technique. IAT could measure the implicit attitudes by the strength of associations between categories and is weakly influenced by the explicit attitude.

After all, the implicit measure is one approach that could ease the problem in a certain degree. The phenomenon described above happens with different stages in different regions in China. For example, Shanghai, Beijing and Hong Kong as autonomous regions have advanced education management and less serious problem. However, the issue is still a common problem in the country. Compare to the verbalized guidance, implicit measure could help the students assess to their internal interests in a spontaneous way. Base on this, they will have more benefit conditions to undertake deliberate consideration.

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