Influence of Meta-stereotype on Well-being and Authenticity

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In order to explore the influence of the degree of impression on the subjective well-being and truthfulness, the present situation paradigm was used to investigate the difference between the truthfulness and the sense of well-being of the introverted individuals with negative meta-stereotype in the neutral social context. According to the data from the self-designed questionnaire survey, introvert workers/university students were divided into two groups: the high negative group and the low negative group, and their subjective well-being and authenticity were measured by the corresponding version of the questionnaire. The results showed that introverted individuals with high negative meta-stereotype had lower subjective well-being and authenticity than those with low negative meta-stereotype in neutral social situations, and their identity and gender had no effect on subjective well-being and authenticity. Conclusion: The subjective well-being and authenticity of introverted individuals with more negative meta-stereotype are lower.

Keywords: stereotype, meta-stereotype, introvert, subjective well-being, authenticity

Introduction

In the introvert's own eyes, they are not so optimistic about themselves: Observation found that when asked to introduce themselves, many students think that their shortcomings are "a little introverted", but this did not have a significant impact on their interpersonal relationships, social adaptation, or academic development prospects, even in these aspects they are considered to be more outgoing students. This phenomenon may be due to the negative meta-stereotype of introverts. Meta-stereotype refers to the individual's beliefs and views about the stereotype held by the members of the external group to their group (internal group) (Vorauer, Main, & O'Connell, 1998). In fact, the negative expression of introvert's emotion and behavior is not only influenced by the stereotype and prejudice of introvert, but also influenced by introvert's own impression.

According to the research of social cognition theory, when the group membership is highlighted, people will feel that the similarity with the inner group members is strengthened, while the difference with the outer group members is increased (Hogg, 2003). At this time, they tend to adopt the stereotyped strategy to read the psychology of others (Frey & Tropp, 2006). The study also found that people generally expect members of external groups to evaluate themselves negatively and view themselves as negative stereotypes, believing that members of external groups view them more rigidly than they view themselves.

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Compared with stereotype, meta-stereotype has a more profound and lasting effect on intergroup relationship (Vorauer & Kumhyr, 2001; Vorauer et al., 1998). This phenomenon is caused by the direct relationship between meta-stereotype and self, and the limited information source, which is not easy to change once formed (Vorauer et al., 1998). Some studies have found that anxiety caused by negative meta-stereotypes can be manifested through spontaneous physiological responses (Gomez & Huici, 2008). Individuals feel that they are viewed negatively, which may arouse their concern about negative evaluation and lead to their uncertainty about proper behavior in group contact.

The research on meta-stereotype has been paid more and more attention in foreign countries, but it is still few in China. At present, the only research focuses on different social strata, migrant children, and urban children (Vorauer & Kumhyr, 2001). Some studies have linked introverts' own factors with cognitive processing patterns and negative behaviors, and find that more introverts may be too pessimistic and negative to perform well on how others view them. They tend to predict the negative side of future events and may be more sensitive to other people's negative reaction clues (Oldenhuis, Gordijn, & Otten, 2007), so they are more likely to produce self-evident predictions, resulting in a vicious circle. Therefore, the activation of negative meta-stereotype will lead to individual's negative expectation of intergroup contact, produce intergroup anxiety, enhance hostility of external group members, and make individual have the desire to avoid communication with external group members (Kamans, Gordijn, Oldenhuis, & Otten, 2007).

Foreign studies have found that introversion individuals are more likely to perceive introversion abuse because of their sensitivity to abuse cues, i.e., they are more likely to view their negative reactions as introversion abuse, which in turn brings stress to them, and when a more introversion individual feels stressed to be more extroversion, it tends to be associated with a lower sense of well-being (He, Sun, & Luo, 2014), and the result of the more introversion individual's continuous behavior of being more extroversion is lower authenticity (Feldman-Barrett & Swim, 1998). As an important object of psychological research, subjective well-being refers to the overall evaluation of individual's emotional and cognitive quality of life according to self-defined standards (Finchilescu et al., 2007), while authenticity, as one of the positive psychological qualities, refers to a subjective evaluation of individual's ability to demonstrate their core and truest self in daily life (Gardner, Kirby, Gorospe, & Villamin, 1972).

The source of the reduction of individual happiness and sense of reality caused by meta-stereotype is the response to negative clues and negative responses.That is, introverts may already feel low happiness and feel unable to touch their true selves when they do not feel negative treatment.

Vorauer, Hunter, Main, and Roy (2000) found that the activation of meta-stereotype is different from the activation of stereotype. The automatic activation of stereotype only needs to present external group members, and the activation of meta-stereotype depends on other factors. The most basic condition is that the individual feels that he is being evaluated by external group members or has the possibility of being evaluated. Therefore, this study intends to divide the introversion workers/university students into the high negative meta-stereotype group and the low negative meta-stereotype group according to the data obtained from the scale screening, and use the real situation paradigm to present the neutral social occasions to the subjects, activate their meta-stereotype impression, measure their subjective well-being and authenticity, and propose a hypothesis: The introversion of the high negative meta-stereotype has a lower sense of happiness and authenticity than the introversion of the low negative meta-stereotype in the neutral social occasions.

Research Methods

Subjects

Eysenck Personality Questionnaire (EPQ) was used to screen introverted workers and introverted college students.

The total score was calculated by inversely scoring the questions under the dimensions of "low trust", "low closeness", "neuroticism", and "interpersonal withdrawal" of meta-stereotypical impression. The high negative group was the introvert workers/college students with the first 27% score, and the low negative group was the introvert workers/college students with the last 27% score.

There were 74 subjects, including 20 workers and 54 college students: meta-stereotype high negative group 38, meta-stereotype low negative group 36. Basic information of subjects is shown in Table 1. Subjects who were invited to participate in the study were asked to do so on a voluntary basis that all information was confidential. Participants in the study received a notebook souvenir. All subjects were validly filled in and included in the available data.

Table 1

Basic Information Table of Subjects

Variable	Horizontal	Number (persons)	Percentage %
Gender	Male	23	31.08
	Female	51	68.92
Type	Inclined type	55	74.32
	Typical introduction	19	25.68
Meta-stereotype category	Highly negative group	38	51.35
	Low negative group	36	48.65
Group	College students	54	72.97
	Worker	20	27.03

Research Tools

The subjects' subjective well-being and authenticity were measured by subjective well-being scale and authenticity scale. The subjects were evaluated with the existing scales.

Subjective well-being is composed of emotion and cognition. Among them, affective component includes positive emotion and negative emotion, while cognitive component refers to life satisfaction. Therefore, this study uses the existing scale of life satisfaction and the scale of positive and negative emotions to assess the subjective well-being level.

The Life Satisfaction Scale (LSS) was developed by Diener (1984) to assess the satisfaction of individuals with their own lives. The scale consisted of five items, each using a Likert 7 rating scale, transitioning from "very disagreeing" to "very agreeing". Previous studies have shown that this scale has good reliability and validity.

The Positive-Negative Affective Scale (PANANS) was developed by Watson, Clark, and Tellegen (1988) to measure individual positive and negative emotions. The scale is composed of 20 adjectives using the Likert 7-point scoring method. Among them, 10 positive emotion adjectives are used to evaluate positive emotion, and the other 10 negative emotion adjectives are used to evaluate negative emotion. Previous studies have shown that the scale has good reliability and validity, and a wide range of applications.

There are 12 items in the truth scale (Thomaes et al., 2017), and three factors: real life, self alienation, and acceptance of external influence. The score of seven points is one for "very inconsistent' and seven points for

"very consistent". This study adopts the Chinese version of authenticity scale (Song, Wang, & Zhao, 2020), which is finalized after repeated discussions and modifications by the research group after preliminary translation by Chinese researchers Song Lili and others, a master's student and a doctoral student majoring in psychology, and then retranslated by an English teacher. After testing, it has good reliability and validity.

Study Procedure

In this study, by using the realistic situation paradigm, in the neutral social context, the individuals can perceive that they are being evaluated by the members of the external group or have the possibility of being evaluated, thus activating their meta-card impression, so as to investigate the difference between the truthfulness and happiness of the subjective experience of the introverted individuals with high or low negative meta-card stereotype in the neutral social context. First of all, the subjects are presented with a realistic reading material. All the participants in this study will be in a stimulated emotional state, and introvert workers and introverted college students will face different realistic situations.

The situation material presented to the introverts is: "Your company or unit organizes the team building, during which you should carry out the team building game, such as: long-distance collection of goods, sitting up, air ball running, bamboo pole support people walking and some other action games. When people play the game, people around will watch and applaud and cheer, laugh and play. After the game, you talk about dining together, everyone sitting around the table, laughing about today's game of fun moments. The team building time is one day". Have introverts, after carefully reading the materials, carefully examine their own experiences and feelings during or after the event according to their actual situation, and then complete the authenticity scale of the subjective well-being scale.

First, the class organized an entertainment activity; many students signed up to perform their talents. On the activity day, the class was noisy and the students on the stage were performing their programs. Those who do not perform are assigned a specific location, but they can move around and chat freely. There are snacks and drinks on the table. The activity lasts about three hours. Second, you and three unfamiliar classmates form a group to finish the final assignment together. Therefore, you decide to hold a meeting to arrange the assignment content and division of work. In the course of the discussion, you are largely unanimous in your statements and comments, but you are somewhat silent about your comments. After deciding the content, they want you to be the speaker because they think you are familiar and good at it. "At the end of the day, there were some problems that were not dealt with, but one student thought that the teacher would not ask these questions and would not increase the workload. One student also agreed". Have introverted college students, after reading the materials carefully, carefully examine their possible experiences and feelings during or after the two events according to their actual situation, and then complete the authenticity scale of the subjective well-being scale.

Then, according to the scores of all the subjects on the scale, the researchers divided them into groups and calculated them to examine the subjective well-being and authenticity of the introverts with different negative degrees.

Result

College Students Group

The negative degree of meta-stereotype (high negative group, low negative group) and gender (male, female) were independent variables, and the subjective well-being and authenticity level of the subjects were

dependent variables. The main effect of negative degree of meta-stereotype was significant by 2×2 design variance analysis, $F_{\text{well-being}} (1,50) = 12.717$, $p = 0.001$, $\eta_p^2 = 0.203$, $F_{\text{authenticity}} (1,50) = 15.792$, $p < 0.001$, $\eta_p^2 = 0.240$; the main effect of gender was not significant, $F_{\text{well-being}} (1,50) = 0.440$, $p = 0.510$, $\eta_p^2 = 0.009$, $F_{\text{authenticity}}(1,50) = 0.040$, $p = 0.843$, $\eta_p^2 = 0.001$; negative degree of meta-stereotype and gender interaction were not significant, $F_{\text{well-being}} (1,50) = 2.415$, $p = 0.126$, $\eta_p^2 = 0.046$, $F_{\text{authenticity}} (1,50) = 6.857$, $p = 0.012$, $\eta_p^2 = 0.121$. The subjective well-being (SWB) of high negative meta-stereotype group ($M = 73.50$, $SD = 2.82$) was significantly lower than that of low negative meta-stereotype group ($M = 89.52$, $SD = 3.50$). The authenticity of high negative meta-stereotype group ($M = 44.09$, $SD = 2.38$) was significantly lower than that of low negative meta-stereotype group ($M = 59.16$, $SD = 2.95$).

Worker Group

The negative degree of meta-stereotype (high negative group, low negative group) and gender (male, female) were independent variables, and the subjective well-being and authenticity level of the subjects were dependent variables. The main effect of negative degree of meta-stereotype was significant by 2×2 design variance analysis, $F_{\text{well-being}} (1,16) = 2.648$, $p = 0.013$, $\eta_p^2 = 0.142$, $F_{\text{authenticity}} (1,16) = 1.756$, $p = 0.024$, $\eta_p^2 = 0.099$; the main effect of gender was not significant, $F_{\text{well-being}} (1,16) = 0.039$, $p = 0.845$, $\eta_p^2 = 0.002$, $F_{\text{authenticity}} (1,16) = 0.013$, $p = 0.912$, $\eta_p^2 = 0.001$; negative degree of meta-stereotype and gender interaction were not significant, $F_{\text{well-being}} (1,16) = 0.242$, $p = 0.629$, $\eta_p^2 = 0.015$, $F_{\text{authenticity}} (1,16) = 0.008$, $p = 0.930$, $\eta_p^2 = 0.001$. The subjective well-being of high negative meta-stereotype group ($M = 78.92$, $SD = 4.64$) was significantly lower than that of low negative meta-stereotype group ($M = 91.10$, $SD = 5.87$). The authenticity of high negative meta-stereotype group ($M = 52.58$, $SD = 3.60$) was significantly lower than that of low negative meta-stereotype group ($M = 60.27$, $SD = 4.55$).

Discussion

The fourth study used the real situation paradigm to test the subjective well-being and authenticity of the subjects with different levels of meta-stereotype. The results showed that there were significant differences in the scores of subjective well-being and authenticity between the two groups of meta-stereotype. The introversion of the high negative meta-stereotype group felt more negative emotions than the low negative group, which showed that the level of subjective well-being and authenticity was lower, and the hypothesis was true.

This confirms our hypothesis that different negative degrees of meta-stereotype impression have different subjective well-being and sense of authenticity, which indicates that activation of meta-stereotype can directly lead to the reduction of authenticity and sense of happiness. However, the previous research found that the negative meta-stereotype of introverts will make them under pressure and force them to change themselves, thus reducing their authenticity and happiness (Van den Bosch & Taris, 2014; Jacques-Hamilton, Sun, & Smillie, 2019). The research explored the negative impact from the perspective of the behavioral effect of meta-stereotype activation, i.e., it is believed that the introverts change themselves to become extroverted, which causes their authenticity and happiness to decrease. However, according to the threat of meta-stereotype, i.e., the negative meta-stereotype will lead to social psychological dilemma and cognitive imbalance of group members, induce stress and fear experience, and further damage the behavioral performance of group members (Sun, He, & Luo, 2015). Therefore, negative meta-stereotypes may also reduce the happiness and authenticity

of individuals, thus creating a pressure to change their perception and improve their happiness or maintain the status quo to maintain truth.

However, our experimental results can only show that negative meta-stereotypes may be activated in neutral situations, resulting in the reduction of happiness and authenticity, but happiness and authenticity may share the same reason with high negative meta-stereotypes, that is, they can be considered in parallel.

Globally, extroversion is valued and preferred in different cultures, and more extroversion may belong to dominant and preferred groups, no exception in collectivist cultural countries such as China (Van den Bosch & Taris, 2014). Therefore, extroversion is at the upper level of social hierarchy as described by McCorda and Joseph (2020), and introverts are in a relatively inferior position. Such inferiority promotes introverted individuals to have a higher degree of negative meta-stereotype and subjective negative feeling. According to the selection theory of attention, individuals tend to make responses compatible with stimuli (McCorda & Joseph, 2020). Therefore, introverted individuals with high negative meta-stereotype may be more sensitive to the negative evaluation of introversion than introverted individuals with low negative meta-stereotype, and even generate negative evaluation fear. Just as Sun Yawen and others found, after the activation of negative meta-stereotype, negative evaluation from external groups will make individuals feel threatened (Sun et al., 2015), resulting in an unsafe feeling (Finchilescu et al., 2007; Shelton, Richeson, & Salvatore, 2005). They believe that meta-stereotype may be real, and thus generate a series of negative feelings. However, meta-stereotype threat is a universal threat with both emotional and behavioral attributes (Xu, Wu, & He, 2018). The negative feelings it produces are likely to be complex, not only low happiness and authenticity, but also low self-esteem and intergroup anxiety (Xu et al., 2018; Huang, B. S. Zhang, Y. Zhang, & Ma, 2019; Sun et al., 2015), which can be further explored by experiments.

In addition, we also found that the subjective well-being and authenticity of different negative degrees of meta-stereotype were not related to the gender of the subjects, but significantly related to the negative degree of individual meta-stereotype, which indicates that this effect is prevalent in different gender. Previous studies have also found that gender, identity, individual's family economic income, and individual's past life events and other factors do not have a significant impact on subjective well-being (Yan, Zheng, & Qiu, 2003), which may be caused by cultural development, and the differences between different genders gradually shrink; this study does not discuss the impact of group identity on happiness and authenticity, because we provide subjects with a large difference in the material of neutral social scenes, and can then analyze whether group identity has an impact on the two after consistent presentation of materials.

Conclusion

The subjective well-being and authenticity of introverted individuals with more negative meta-stereotype were lower.

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