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The Effects of Power and Social Norms on Power Decision Making

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Abstract

Power, as an important and long-term research topic of politics field, has attracted extensive attention. In recent years, power has become a hot research field of social psychology. Power as a kind of psychological variables, affects the individual's cognition, emotion and behavior. At present, the opinion that power affects individual decisions, attracts more and more attention of researchers. Among many factors that affect the individual's decision behavior, social environment and group's role cannot be ignored. The research takes the game experiment to study decision, form the sense of social norms and power, recruiting 124 students in University, starting high level and low level of power respectively, then displaying descriptive social norms. Next, game experiment begins, observing differences between subjects facing different forms of power in the course of the game to make choices and decisions. The results show that the sense of power level and social norms influence power decision-making behavior. The sense of power has a significant influence on the acquisition of the blue symbol (legitimacy) and the acquisition and use of the red symbol (force) ($p < 0.05$); social norms have a significant influence on the acquisition of the red symbol (force) and the acquisition and use of the blue symbol (legitimacy) ($p < 0.05$); power and social norms influence the remaining sum of the blue symbol (legitimacy) with interaction ($p < 0.05$). The result shows that the higher power people use more force to satisfy their own needs, and the lower authority uses more legitimacy to satisfy their own needs.

Keywords

Power, Social Norms, Decision Making Behavior, Game Experiment, Force, Legitimacy

1. Introduction

Power, in the field of psychology, is defined as control over valuable resources

(Fiske, 1993) or influence on the thoughts and actions of others (Keltner, Gruenfeld, & Anderson, 2003). Power can be said to be the central topic of social science, as well as one of the important research contents and hot spots in the field of social psychology (Guinote, 2007). Power originates from people's control over resources and is often associated with social status. As an important psychological variable, it has an important influence on individual's social cognition, emotion, decision-making and behavior (Bugental, Blue, & Cruzcosa, 1989). This study intends to further explore the influence of power on individual decision-making. Previous studies have shown that individuals with a high sense of power have different behaviors from those with a low sense of power. For example, high-power people will use more hostile strategies and allocate more benefits to themselves (Kim, Pinkley, & Fragale, 2005). In recent years, related researches in psychology have found that power, as a psychological attribute, is the perception of one's ability to influence the psychological state of others. When people experience power, their social cognition and social behavior will be affected by power (Galinsky, Gruenfeld, & Magee, 2003). This discovery provides new research methods for power research such as priming (such as contacting power words and recalling power experience) (Anderson & Galinsky, 2010), that is, activating individuals' sense of power through power priming. In the research, the sense of power is defined as an individual's cognition of his/her ability to control or influence his/her own and others' resources. It does not represent the actual power or social status of an individual.

Decision making refers to the process of making a decision or choice. It can also be defined as the process of evaluating and selecting an existing solution. The study of decision making has been the focus of many disciplines, and as a higher cognitive process, there are also many studies in the field of psychology. There have been many studies on the relationship between power effect and decision-making, such as the influence of power on individual decision-making preference, risk decision-making, decision-making quality, over-confidence bias and other decision-making results (Fast, Sivanathan, Mayer, & Galinsky, 2012). Specifically, the researchers found that high-power individuals were more optimistic in assessing risk and took more risks. Some studies have also found that high-power people have more self-confidence than low-power people, and overconfidence will make them make biased decisions (See, Mirroson, Rothman, & Soll, 2011). In recent years, studies have begun to focus on other moderating factors that influence the power effect, such as the stability of power, responsibility, individual characteristics and cultural differences (Chen, Lee-Chai, & Bargh, 2001). Individual behavior decision is one of the complicated behaviors of human beings. The decision is not only influenced by individual characteristics, but also related to external information and situation. The interaction between individual traits and external information is also the focus of recent research on decision-making behavior. Groups with similar traits are affected by different external factors and have different cognition of information, which will lead to different decision-making behaviors. Therefore, in different power situa-

tions, individual decision-making behavior will be different.

Social norms represents a series of cultural values, reflect the social group members are acceptable or unacceptable behavior (Weber & Hsee, 2000). According to social identity theory, individuals identify themselves to a certain group through social classification and thus identify with this group. It indicates that individuals take both themselves and the specific group to which they belong into consideration when making decisions. People are in the society, so the behavior of decision-making cannot be separated from the interaction with the social environment. Individual decisions not only affect themselves, but also affect others. Such decisions that affect both individuals and others are called social decisions. Past studies have shown that status, information symmetry and sense of control can all affect individuals' weighing of their own interests and others' interests, while power is often closely related to social status, information and sense of control, indicating that power is an important factor influencing social decision-making (Galinsky et al., 2008).

Kallgren put forward the theory of the focus of the normative behavior (A focus and found of normative conduct) the theory is that the structure of social norms is divided into two parts, respectively is descriptive norms (descriptive norms) and imperative specification (injunctive norms) descriptive norm refers to the specific situations, most people are of the opinion that effectively correct and can be spontaneous behavior standards; Imperative specification refers to the system of social organization or a moral code of conduct, it reflects most of approval or disapproval opinion, through the strengthening of the social punishment to drive individual behavior of imperative specification is useful to explain or whether most people expected behavior, Cialdini said: the extent to which people conduct is dependent on people on the degree of focusing on the specification, the attention degree (Reno, Cialdini, & Kallgren, 1993) this only when the specification was activated in the consciousness of the individual (become prominent or clear, for example), it can strongly to guide the behavior of the individual. In this study, descriptive social norms are selected for research, and the decision-making behaviors of individuals or groups are investigated based on the understanding of a certain type of social norms and the effectiveness of social norms on individuals or groups.

Power basic theory is that power is to satisfy people's needs in order to attain the goal of survival, in real life there are four forms of power, coercive power resource right are legal right and responsibility right (Pratto, Lee, Tan, & Pitpitan, 2011) in the experiments, we will form the power instantiated, said by the symbol of a different color, the symbol of each color represents one kind of power, in order to meet the needs of different people. Research there are many means of power, this study use experiment pattern of the dynamic changes of the research of power reasons are as follows: 1) To make a choice between people is freedom, at the same time is affected by the situation limit players face each a selective event card has the power of the freedom of choice, but the choice is already have the power the power of the rules of the game and others have the mutual influ-

ence of 2) The definition of power associated with survival. In real life is the most basic survival is the main goal in life, in order to make the experiment with real life closer to the goal of the game is also set to survive in the game not to be eliminated in the process of the game using the power of ultimate aim is to make myself have enough resources not to be eliminated, choose to meet its own survival needs 3) Factors influencing the power of decision making can be in the process of dynamic change, through the end of the game during the people's behavioral reaction and behavior results measured (Pratto, 2016). Participants in the game of power used to make a lot of choice, game paradigm which affect the results shows that the dynamics of power, also shows the power use dynamic give players in the game as a goal in the game to survive not to be eliminated, the initial number of the same amount of power the same rules and the same event card order, players will still present a different behavior not only because of the freedom of choice, but also because of people's choices are affected by other people and the environment.

The relationship between power and decision making has been explained by predecessors. In previous studies, power priming materials were used to activate the subjects' high power level or low power level, and then the general power level scale was used to test the priming effect (Guinote, 2008). This study will further verify the effect of power priming on the basis of previous research results, and investigate the differences in decision-making among subjects with different levels of power priming, so as to provide support and evidence for relevant studies on power priming. On the other hand, previous studies have proved that people's decision-making process is influenced by both personal characteristics and social environment, and the priming of sense of power can be classified as the influencing factor of personal characteristics (Emerson, 1962). In this study, the influence of social environment is studied with the variable of social norms. Previous studies on social norms are few, let alone on the influence of social norms on decision-making. In this study, descriptive norms were used to create two different social environments for the subjects to investigate the differences in decision-making.

2. Experiment

2.1. Participants

128 undergraduate students were recruited to participate in the experiment, all of whom were physically and mentally healthy. In the psychological research with experimental method as the research method, the sample size of each experimental group reaches 30, which can be regarded as statistically significant. This study designed four experimental groups, and the sample size of 128 college students is reasonable. 4 subjects whose behavioral responses in the experiment were obviously inconsistent with the situation were deleted, and the effective number of subjects was 124, with the effective rate of 96.875%. There were 38 boys and 86 girls. The age of the subjects ranged from 18 to 23. The mean age was 20.31 and the standard deviation was 1.224. 43 in literature and history, 37 in science and 44 in engineering (showing in Table 1, Descriptive statistics).

Table 1. Descriptive statistics.

N	Male	Female	Mean	SD
124	38	86	20.31	1.224

2.2. Design

2 (power: high, low) × 2 (social norm: coercive power, legal right) was used for the experimental design of subjects.

2.3. Materials

1) Power priming materials: according to Galinsky's experimental methods, subjects were required to act as managers of high-power marketing companies under conditions of high power perception. Under the condition of low sense of power, subjects were required to act as ordinary employees with low power to manipulate the state of sense of power (Rucker & Galinsky, 2008).

2) Generalized Sense of Power Scale: the Generalized Sense of Power Scale (Anderson & Galinsky, 2010) compiled by Anderson and Galinsky was used to measure individuals' idiosyncratic Sense of Power. The coefficient of this scale is 0.88, and the coefficient of internal consistency is high. There are 8 items in the scale, and the seven-point scoring method is adopted, which are successively: "very inconsistent", "inconsistent", "relatively inconsistent", "uncertain", "relatively consistent", "consistent" and "very consistent", which are evaluated on a scale of 1 to 7 points respectively. Among them, 1, 3, 5 and 8 are positive scoring questions, while 2, 4, 6 and 7 are reverse scoring questions. The sum of the added scores represents the individual's trait sense of power. The higher the total score, the higher the level of the individual's sense of power.

2.4. Procedure

1) Recruit subjects. The subjects were recruited and determined the experiment time with the subjects. 4 subjects were booked to carry out the experiment together at the same time. The experiment place was a quiet and undisturbed conference room.

2) Sign the informed consent. Please sign the informed consent form. The main test informed the test subjects that 4 people would complete a game experiment together. The experiment lasted about 45 minutes.

3) Activate the sense of power (Anderson, John, & Keltner, 2011). The subjects were given power level priming materials, and the subjects completed tasks in accordance with the requirements of the materials to activate their different levels of power sense. Start at a high power level or a low power level in a group of 4 people. According to Guinote's approach, subjects in the high-power condition were required to imagine themselves as the manager of a marketing company, with absolute power as the leader. The low-power subjects were asked to imagine themselves as an ordinary employee in a marketing company, subject to management and control from above. The participants were then asked to im-

agine a situation and how they felt in it, and to write it down for 10 minutes. After power priming was completed, the subjects were asked to indicate the size of their current sense of power on a 7-point scale, with 1 indicating very inconsistent and 7 indicating very consistent.

4) Study of social norms. The subject explained social norms to the subject. For example, when faced with the card of "what color would you choose if you take a color from the public plate", for the power group, the main test subjects would tell them. Previous studies have shown that 90% or more players would choose red, while about 10% would choose blue, green or orange. For the jurisprudence group, the subject was told that previous studies had shown that 90% or more of the players would choose blue, and about 10% would choose red, green or orange. In the face of "choice: you have 1 more red than other players, do you want to show him your red? When he has to give you or the public plate 1 or more beads (except blue)" card, for the power group, the subject will tell the subject, previous studies have shown that 90% or more players will choose to show red, about 10% of players will choose not to show red; For the jurisprudence group, the subject would tell the subject that previous studies showed that 50% of the players would choose to show red, and 50% of the players would choose not to show red. When faced with the card "choice: nominate any player to hand over a blue card and all players to vote for it", for the power group, the subject would inform the subject that previous studies showed that 50% of players would nominate and 50% of players would not nominate. For the jurisprudence group, the subject will tell the subject that previous studies have shown that 90% or more of the players will nominate, while about 10% of the players will choose not to nominate.

5) Power decision games (Pratto, Pearson, Lee, & Saguy, 2008). The instructions read as follows: "placed in the center of the four of you are a public tray and an event card with symbols in red, blue, green and orange. Each person has been assigned the same number of symbols (10 green, 1 red, 1 blue and 1 orange). Now each person has a description of the symbols, so you can understand it first. You can also check the description at any time during the game. The number of colorful symbols in the game is open to everyone. The common plate is a container divided into four compartments, each containing a number of colored symbols, including green, blue, red, and orange, each representing a form of power. An event card is an event that the player is faced with during the game, such as 'get 2 greens from a public disk 'or' you must have or get another player's orange'. Instructions are instructions given to each player on how to use colorful symbols. For example, green tokens can be acquired and surrendered, red and green exchange, and less than three green players can quit the game. Red tokens have the ability to present and use them to make others hand over their tokens, and how to deal with other players who present or use red tokens to you; the orange symbol has the functions of obtaining, using and retrieving. Blue tokens have the ability to initiate campaigns and nominate votes to enable players to obtain or surrender tokens".

6) Game records. During the game, the subjects took the Event CARDS in order, read out the words on the CARDS, and made a choice. During the game, the subject recorded the choices made by each subject when faced with selective CARDS, as well as the acquisition or surrender of symbols of four colors between subjects. After the game, the final number of symbols of four colors for each subject was recorded. The record board is divided into 48 blocks according to the number of 48 event CARDS in order to record the decision-making behavior of each player when he or she takes the event card and faces the events on the event card.

2.5. Result

The data was analyzed using SPSS19.0.

2.5.1. Effect test of Power Priming

The independent sample T test was used to conduct the difference test on the level of sense of power (showing in Table 2).

T test results showed that the sense of power (M = 40.4, SD = 5.053) perceived by the subjects in the high-power priming group was different from that perceived by the subjects in the low-power priming group (M = 38.7, SD = 4.843). T (122) = 1.907, p = 0.059, with significant edge, indicating that power-sense priming had certain effect.

2.5.2. Influence of Power and Social Norms on Decision-Making

1) Influence of power and social norms on power decision-making at individual level

a) Taking the level of sense of power and social norms as independent variables, the influence of the level of sense of power and social norms on the remaining quantity of various kinds of symbols was tested by using the analysis of variance of multi-dependent variables (showing in Table 3).

As shown in the above table, the results show that: for the amount of green surplus, that is, the power of resources, the main effect of social norms is significant, F(1, 120) = 4.634, p = 0.033 < 0.05. It shows that the control quantity of resource right is significantly different among the subjects who have learned different social norms. The main effects of social norms are further analyzed (showing in Table 4).

It can be seen from the table that the mean amount of green residual quantity of individuals who have learned the red social norm (12.109) is higher than the mean amount of green residual quantity of individuals who have learned the

Table 2. Independent sample T test.

Power priming	N	M	SD	t	df	p
High	60	40.4	5.053			
Low	64	38.7	4.843	1.907	120.606	0.059

(*p < 0.05, **p < 0.01).

Table 3. Analysis of variance of four symbols surplus.

dependent variable	independent variable	SS	MS	F	p
	Power level	0.006	0.006	0.006	0.938
Red surplus	Social norm	0.006	0.006	0.006	0.938
	Power level × social norm	0.899	0.899	0.965	0.328
	Power level	0.985	0.985	1.444	0.232
Blue surplus	Social norm	0.158	0.158	0.231	0.632
	Power level × social norm	0.671	0.671	0.983	0.323
	Power level	0.019	0.019	0.032	0.858
Orange surplus	Social norm	0.234	0.234	0.402	0.572
	Power level × social norm	0.312	0.312	0.536	0.466
	Power level	3.794	3.794	0.088	0.767
Green surplus	Social norm	199.01	199.01	4.634	0.033*
	Power level × social norm	7.519	7.519	0.175	0.676

($*p < 0.05$, $**p < 0.01$).

Table 4. Main effect analysis of social norms on green surplus.

Dependent variable	Social norm	M	SE
Green surplus	Red	12.109	0.819
	Blue	9.571	0.848

blue social norm (9.571), indicating that individuals under the red social norm have more green, that is, control over resources, than those under the blue social norm.

b) Taking the level of sense of power and social norms as independent variables, the influence of the level of sense of power and social norms on the ratio of red to orange was tested by multivariate analysis of variance. The red symbol represents the power of coercion. According to the requirements of the event card, "you need to own or obtain the orange symbol of other players", the other party can make a quid pro quo, offering to exchange red for orange to show the importance of the power of coercion (showing in Table 5).

The results of multivariate analysis of variance show that for the ratio of red to orange, the interaction between the level of power and social norms is significant. $F(1, 120) = 10.465$, $p = 0.002 < 0.01$. In order to further analyze the sources of differences, a simple effect analysis was carried out (showing in Table 6).

The results of simple effect test show that the individuals who learn different social norms have significant differences under the condition of priming high power sense. $F(1, 120) = 10.971$, $p = 0.002 < 0.01$. The mean value of red (0.563) is higher than the mean value of blue (0.232), indicating that subjects under the red social norm use more red and orange for exchange than those under the blue social norm. Under the condition of learning the blue social norm, the individuals

Table 5. Analysis of variance of ratio of red to orange.

dependent variable	independent variable	SS	MS	F	p
	Power level	0.326	0.326	2.128	0.147
Ratio of red to orange	Social norm	0.326	0.326	2.128	0.147
	Power level × social norm	1.602	1.602	10.465	0.002**

(*$p < 0.05$, **$p < 0.01$).

Table 6. Simple effect test of the power level and social norms on the ratio of red to orange.

Power level	Social norm	M	SE	F	p
High	Red	0.563	0.077	10.971	0.002**
	Blue	0.232	0.064		
Low	Red	0.438	0.077	1.59	0.212
	Blue	0.563	0.06		

(*$p < 0.05$, **$p < 0.01$).

with a high level of sense of power are significantly different from those with a low level of sense of power. $F(1, 120) = 14.287$, $p < 0.01$. The mean value of high sense of power (0.232) is lower than that of low sense of power (0.563), indicating that subjects with low sense of power use more red and orange to exchange than subjects with high sense of power.

2) Influence of power and social norms on power decision-making at group level

a) Taking the level of sense of power and social norms as independent variables, the influence of the level of sense of power and social norms on the total number of the four color symbols owned by each group after the game is tested by multivariate analysis of variance (showing in Table 7).

The results show that the sum of the blue symbols representing the legal right has a significant main effect on the level of the sense of power, $F(1, 120) = 7.452$, $p = 0.007 < 0.01$. It showed that the sum of the amount of blue had a significant difference among the groups activated with different levels of sense of power. The interaction between the level of power and social norms was significant, $F(1, 120) = 5.072$, $p = 0.026 < 0.05$. For the orange symbols representing the right of responsibility, the sum of them has a significant main effect on the level of social norms, $F(1, 120) = 9.911$, $p = 0.002 < 0.01$. It showed that the sum of the orange amounts was significantly different among the groups that had learned different social norms. The interaction between the level of sense of power and social norms was significant, $F(1, 120) = 13.196$, $p < 0.01$. For the green symbols representing resource rights, the sum of them has a significant main effect on the level of social norms, $F(1, 120) = 18.898$, $p < 0.01$. It showed that the total amount of green was significantly different among the groups that had learned different social norms. The interaction between the level of power and social

Table 7. Analysis of variance of four symbols sum.

dependent variable	independent variable	SS	MS	F	p
	Power level	1.931	1.931	0.941	0.334
Red sum	Social norm	1.931	1.931	0.941	0.334
	Power level × social norm	4.345	4.345	2.117	0.148
	Power level	15.764	15.764	7.452	0.007**
Blue sum	Social norm	2.522	2.522	1.192	0.277
	Power level × social norm	10.729	10.729	5.072	0.026*
	Power level	0.298	0.298	0.788	0.376
Orange sum	Social norm	3.746	3.746	9.911	0.002**
	Power level × social norm	4.988	4.988	13.196	0.001**
	Power level	19.51	19.51	0.189	0.665
Green sum	Social norm	1955.372	1955.372	18.898	0.001**
	Power level × social norm	537.165	537.165	5.191	0.024*

(*$p < 0.05$, **$p < 0.01$).

norms was significant, $F(1, 120) = 5.191$, $p = 0.024 < 0.05$. Further analysis is made on the main effect of the level of the sense of power and social norms (showing in Table 8).

It can be seen from the above table that the blue sum has a significant main effect on the level of sense of power. The mean of the blue sum of the groups with high sense of power (6.732) is lower than that of the groups with low sense of power (7.438), indicating that the groups with low sense of power will acquire more blue. The sum of orange has a significant main effect on social norms. The mean of the sum of orange of the groups learning red social norms (4.625) is higher than that of the groups learning blue social norms (4.277), indicating that the groups learning red social norms will acquire more orange. The green sum has a significant main effect on social norms. The mean of the green sum of the groups learning red social norms (48.437) is higher than the mean of the green sum of the groups learning blue social norms (40.482), indicating that the groups learning red social norms will obtain more green amount .In order to further analyze the sources of differences in the case of significant interaction, a simple effect test was conducted showing in Table 9).

The results of simple effect test show that under the condition of priming low power level, the groups that learn different social norms have significant differences. $F(1, 120) = 5.444$, $p = 0.023 < 0.05$. The mean value of red (7) is lower than that of blue (7.875), indicating that the subject groups under the red social norm have less blue quantity than those under the blue social norm. Under the condition of learning the blue social norm, the group with high power level is significantly different from the group with low power level. $F(1, 120) = 12.029$, $p = 0.01$. The mean value of high sense of power (6.571) was lower than that of low

Table 8. Main effect analysis of power level and social norms on four symbols sum.

Dependent variable	Power level	M	SE	Social norm	M	SE
Blue sum	High	6.723	0.188	Red	6.938	0.182
	Low	7.438	0.182	Blue	7.223	0.188
Orange sum	High	4.402	0.08	Red	4.625	0.077
	Low	4.5	0.077	Blue	4.277	0.08
Green sum	High	44.875	1.316	Red	48.437	1.272
	Low	44.062	1.272	Blue	40.482	1.136

Table 9. Simple effect test of power level and social norms on blue sum.

Power level	Social norm	M	SE	F	p
High	Red	6.875	0.248	0.689	0.407
	Blue	6.571	0.265		
Low	Red	7	0.265	5.444	0.023*
	Blue	7.875	0.265		
Social norm	Power level	M	SE	F	p
Red	High	6.875	0.257	0.118	0.733
	Low	7	0.257		
Blue	High	6.571	0.274	12.029	0.01*
	Low	7.875	0.257		

($*p < 0.05$, $**p < 0.01$).

sense of power (7.875), indicating that the groups with low sense of power had more blue Numbers than those with high sense of power.

b) Taking the level of sense of power and social norms as independent variables, the influence of the level of sense of power and social norms on the proportion and proportion of red or blue symbols taken by each group after the game was finished was tested by multi-factorial analysis of variance(showing in Table 10).

As shown in the above table, the results show that, for the blue symbol representing legal right, the proportion of taking red and the main effect on the level of power are significant, $F(1, 120) = 7.689$, $p = 0.006 < 0.01$, indicating that the groups with different levels of power are activated, and the proportion of taking red is significantly different. The main effect on social norms was significant, $F(1, 120) = 8.88$, $p = 0.003 < 0.01$. It showed that there were significant differences in the proportion of subjects who took the red color after learning different social norms. The blue proportion and the main effect on the sense of power level were significant, $F(1, 120) = 4.198$, $p = 0.043 < 0.05$, indicating that the groups with different sense of power levels were activated, and the blue proportion and the main effect were significantly different. The main effect on social norms was significant, $F(1, 120) = 6.868$, $p = 0.01$. The results showed that

Table 10. Analysis of variance of four symbols proportions sum.

Dependent variable	Independent variable	SS	MS	F	p
	Power level	0.112	0.112	7.689	0.006**
Sum of red proportions	Social norm	0.129	0.129	8.88	0.003**
	Power level × social norm	0.006	0.006	0.83	0.539
	Power level	0.071	0.071	4.198	0.043*
Sum of blue proportions	Social norm	0.116	0.116	6.868	0.01*
	Power level × social norm	0.377	0.377	22.253	0.001**

(*$p < 0.05$, **$p < 0.01$).

there was a significant difference in the proportion of participants who took blue color after learning different social norms. The interaction between the level of power and social norms was significant, $F(1, 120) = 22.253$, $p < 0.01$. Further analysis is made on the main effect of the level of the sense of power and social norms (showing in Table 11).

It can be seen from the above table that the proportion of taking red and the main effect on the level of sense of power are significant. The proportion and mean of taking red in groups with high sense of power (0.495) are higher than that of groups with low sense of power (0.398), indicating that groups with high sense of power will take more red. The red ratio and the main effect on social norms were significant. The red ratio and mean value of the group learning red social norms (0.461) were higher than that of the group learning blue social norms (0.396), indicating that the group learning red social norms would acquire more red color. The blue proportion and the main effect on the sense of power were significant. The blue proportion and mean value of the groups with high sense of power (0.413) were lower than that of the groups with low sense of power (0.461), indicating that the groups with low sense of power would take more blue. The blue proportion and the main effect on social norms were significant. The blue proportion and mean value of the group learning red social norms (0.406) were lower than that of the group learning blue social norms (0.468), indicating that the group learning blue social norms would acquire more blue. In order to further analyze the sources of differences in the case of significant interaction, simple effect analysis was conducted (showing in Table 12).

The results of simple effect test show that under the condition of priming low power level, the groups that learn different social norms have significant differences. $F(1, 120) = 29.535$, $p < 0.01$. The red mean (0.375) was lower than the blue mean (0.547), indicating that the groups under the red social norm received less blue than those under the blue social norm. Under the condition of learning the red social norms, the groups with high sense of power are significantly different from those with low sense of power. $F(1, 120) = 5.167$, $p = 0.027 < 0.05$. The mean value of high sense of power (0.438) was higher than that of low sense of power (0.375), indicating that the group with high sense of power took more blue than the group with low sense of power. Under the condition of learning

Table 11. Main effect analysis of power level and social norms on four symbols proportions sum.

Dependent variable	Power level	M	SE	Social norm	M	SE
Sum of red proportions	High	0.495	0.016	Red	0.461	0.015
	Low	0.398	0.015	Blue	0.396	0.016
Sum of blue proportions	High	0.413	0.017	Red	0.406	0.016
	Low	0.461	0.016	Blue	0.468	0.017

Table 12. Simple effect test of power level and social norms on blue proportion sum.

Power level	Social norm	M	SE	F	p
High	Red	0.438	0.024	2.005	0.162
	Blue	0.388	0.025		
Low	Red	0.375	0.022	29.535	0.001**
	Blue	0.547	0.022		
Social norm	Power level	M	SE	F	p
Red	High	0.438	0.019	5.167	0.027*
	Low	0.375	0.019		
Blue	High	0.388	0.028	16.942	0.001**
	Low	0.547	0.026		

($*p < 0.05$, $**p < 0.01$).

the blue social norm, the group with high power level is significantly different from the group with low power level. $F(1, 120) = 16.942$, $p < 0.01$. The mean value of high sense of power (0.388) was lower than that of low sense of power (0.547), indicating that the group with low sense of power took more blue than the group with high sense of power.

c) Taking the level of sense of power and social norms as independent variables, the influence of the level of sense of power and social norms on the frequency and proportion of red or blue symbols used by each group after the end of the game was tested by multivariate analysis of variance (showing in Table 13).

As shown in the above table, the results show that for the blue symbol representing legal right, the usage times and the main effect on social norms are significant, $F(1, 120) = 7.214$, $p = 0.008 < 0.01$, indicating that there are significant differences in the usage times and the main effect of blue symbol on social norms. The interaction between the level of power and social norms was significant, $F(1, 120) = 4.345$, $p = 0.039 < 0.05$. The proportion of use of red and the main effect on the sense of power level were significant, $F(1, 120) = 8.351$, $p = 0.005 < 0.01$, indicating that the groups with different sense of power levels were activated, and the proportion of use of red and the main effect were significantly different. Further analysis is made on the main effect of the level of the sense of power and social norms (showing in Table 14).

Table 13. Analysis of variance of using symbols sum and proportions.

Dependent variable	Independent variable	SS	MS	F	p
	Power level	3.746	3.746	1.452	0.231
Using red sum	Social norm	1.593	1.593	0.597	0.441
	Power level × social norm	8.574	8.574	3.323	0.071*
	Power level	14.227	14.227	2.321	0.13
Using blue sum	Social norm	44.227	44.227	7.214	0.008**
	Power level × social norm	26.64	26.64	4.345	0.039*
	Power level	0.33	0.33	8.351	0.005**
Using red proportion	Social norm	0.047	0.047	1.201	0.275
	Power level × social norm	0.002	0.002	0.063	0.802
	Power level	0	0	0.013	0.909
Using blue proportion	Social norm	0.001	0.001	0.101	0.0751
	Power level × social norm	0.039	0.039	2.877	0.092

($*p < 0.05$, $**p < 0.01$).

Table 14. Main effect analysis of power level and social norms on symbols sum and proportions.

Dependent variable	Power level	M	SE	Social norm	M	SE
Using blue sum	High	3.795	0.32	Red	3.5	0.31
	Low	4.438	0.31	Blue	4.696	0.32
Using red proportion	High	0.241	0.026	Red	0.169	0.025
	Low	0.137	0.025	Blue	0.209	0.026

From the above table, it can be seen that blue usage times and the main effect of blue on social norms are significant. The blue usage times and mean value of the group learning red social norms (3.5) are lower than that of the group learning blue social norms (4.696), indicating that the subjects learning blue social norms will use more blue. The proportion of using red and the main effect on the level of sense of power were significant. The proportion and mean of using red in subjects with high sense of power (0.241) were higher than that in subjects with low sense of power (0.137), indicating that the subjects with high sense of power would use more red. In order to further analyze the sources of differences in the case of significant interaction, simple effect analysis was conducted (showing in Table 15).

The results of simple effect test show that under the condition of priming low power level, the groups that learn different social norms have significant differences. $F(1, 120) = 9.501$, $p = 0.003 < 0.01$. The red mean (3.375) was lower than the blue mean (5.5), indicating that the groups under the red social norm used less blue than the groups under the blue social norm.

Table 15. Simple effect test of power level and social norms on using blue sum.

Power level	Social norm	M	SE	F	p
High	Red	3.625	0.377	0.235	0.629
	Blue	3.893	0.403		
Low	Red	3.375	0.487	9.501	0.003**
	Blue	5.5	0.487		
Social norm	Power level	M	SE	F	p
Red	High	3.625	0.29	0.371	0.545
	Low	3.375	0.29		
Blue	High	3.893	0.592	3.934	0.052
	Low	5.5	0.554		

(*$p < 0.05$, **$p < 0.01$).

3. Conclusion and Discussion

The experiment studied the dynamic change of power through game paradigm, and investigated the influence of sense of power and social norms on power decision-making. The experiment first carried out the independent sample t test on the priming effect of the sense of power, and the result was that the edge was significant, and the priming material could better prim different levels of the sense of power of the subjects. Through the experiment game, the subjects could understand the different forms of power represented by the symbols of different colors, and they also considered the use of different forms of power when making choices. At the same time, the decisions made are influenced by the environment. Some players will make choices to gain more coercive power, while others will gain more legal right. Game theory reflects the combination of freedom of choice and restriction. The behavior of choice is free, but the choice will be influenced by the game purpose and environment.

Subjects who primed different levels of power tended to use different decision-making styles and different forms of power. For subjects who primed a high sense of power, they used more coercive power; for subjects with a lower sense of power, they used more legal-rational power. There are significant differences in the way the two behave. The data support this hypothesis, and the power effect at the group level is more pronounced than at the individual level. For example, the blue sum of the groups with low sense of power is more than that of the groups with high sense of power, indicating that in the groups with low sense of power, people will attach importance to legal right and meet their needs by obtaining more legal right. Starting high power groups takes red ratio and higher than starting low power group, starting low power groups takes blue proportion and higher than starting high power group, showing that the group control of high power is stronger, by getting coercive power to realize the need to satisfy, low power group control is weak, through access to legal rights to realize the need to meet; the proportion of red used by the group with high power priming

and higher than the group with low power priming showed that the group with high power had a strong sense of control and used a lot of coercive power.

Subjects who followed different social norms tended to use different decision-making styles and different forms of power. Under the social norm of using coercive power, the subjects would use more coercive power. Under the social norm of using legal-rational power, the subjects would use more legal-rational power. There are significant differences in the way the two behave. The data also support the hypothesis that power at the group level has a greater effect than at the individual level. For example, the group that learned the red social norms took the red ratio higher than the group that learned the blue social norms. In the social environment of coercive power, people tend to acquire coercive power, believing that coercive power can better meet their needs. In the social environment of legal right, people tend to acquire legal power, believing that legal right can better meet their needs. Groups that have learned blue social norms use blue more often than groups that have learned red social norms, indicating that the exercise of legal right is more acceptable to the group and more applicable to the group's decision-making.

There is an interaction between the level of sense of power and social norms, which affects the use of coercive power and legal power. The data results can also support this hypothesis, with interactions occurring at both the individual and group levels. For example, subjects under the condition of high power were more likely to use red and orange for exchange than subjects under the condition of blue social norms, indicating that the social norms of high power and coercive power strengthened individuals' sense of control. Individuals obtained more coercive power to meet their own needs. Start low power, the blue subjects group under the condition of social norms than red color under the condition of social norms, the number of participants group has more blue take more the number of blue blue number and using more shows low power groups, to the attention of the legal rights through legal rights to meet the needs of themselves and groups; After learning the red social norms, the subjects with a high sense of power took more blue than the subjects with a low sense of power, indicating that the high-power groups attached importance to both coercive power and legal right. To some extent, legal right enabled the high-power individuals to meet their own needs. After learning the blue social norms, the subjects with a low sense of power used red and orange more than those with a high sense of power to exchange, take and have more blue, indicating that the low-power groups attach great importance to legal right, while the low-power individuals yearn for coercive power.

In general, high-power groups have a strong sense of control, and use more coercive power to meet their own needs. It is up to them to decide whether their needs can be met or not. The group with low power has a weak sense of control, and USES legal right more to meet its own needs. Whether the needs can be met or not is decided by the group members. Groups under the social environment of coercive power will use more coercive power, and groups under the social en-

vironment of legal right will use more legal power. The choices of groups in the society affect the decisions of individuals. The social environment with high power and coercive power will strengthen people's sense of control, while the social environment with low power and legal right will weaken people's sense of control. One interesting point is that individuals with low power pursue coercive power.

4. Research Significance and Contribution

1) To college students, as the research object of this research university students as a group of entering society, study their awareness and understanding of the social norms of power, and examine them in such a case the decision behavior, can provide relevant support for the growth and physical and mental development of college students, the research on college students' psychological aspect also has certain practical significance.

2) At present, there are relatively few studies on the relationship between social norms and decision-making. This study, as a new attempt, includes the influence factor of power, which can provide relevant information for the study on the relationship between social norms and decision-making of power.

3) This study on power social norms and decision-making approach to the study of three factors make innovation for power, in addition to the sense of power starting materials widely used in previous research and the general power scale power effect, the combination of research this experiment is based on the theory of power base, from the point of view of the dynamic changes of the power, take the way of experiment to study the change process of the power and the results.

4) For social norms, this experiment from the social norm structure a new Angle to study the relationship with the decision, to provide a new Angle for the research of social norms on decision-making behavior influence factor of study, this research from two aspects of individual characteristics and social environment, taking a typical factors (i.e., power and social norms), to study the differences in people's decisions.

5. Research Shortage

1) The samples of this study are all college students, with a single sample structure and a small number of subjects. The results can better reflect the behavior of this sample group, but it may need more and more types of subjects to generalize to a larger range.

2) At the same time, compared with other social groups, college students have a weak sense of power, so future research can select enterprise and public sector workers as subjects to test the actual high-power and low-power people in real life, and examine the relationship between power and decision-making.

3) The study and presentation of social norms also need to be further improved. The results of data analysis in the research conclusion show that under

the social environment of legal right and the group characteristic condition of low power, the reasons for individuals' pursuit of coercive power in the group can be further studied and analyzed.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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