

## A Corpus-Based Critical Discourse Analysis on Cyber Stigmatization -----A Case of Microblogging Discourse on BMW Car Crash

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### ABSTRACT

Cyber stigmatization has become an increasingly common phenomenon on social media, which usually involves the topics of culture, gender, race, illness and disease. Individuals or collective identities who are stigmatized usually feel different and devalued by others. The present study is conducted from the perspective of Critical Discourse Analysis, assisted by corpus linguistics software, which attempts to reveal the discourse power behind cyber stigmatization by discussing netizens' emotions and ideologies in the microblogging discourse on BMW Car Crash in Nanjing. With the quantitative and qualitative analysis of 4857 comment collected on Weibo platform under the assistant of AntConc and KHcoder, the findings suggest that: (1) The discussion of network events usually goes through a topic-shift process, and an expansion of discussion area; (2) Many grass-roots netizens get a relatively strong discourse power when expressing opinions on network. They tend to stigmatize a certain social group by stereotypical ideas; (3) Different social status and limited power in real life make netizens generate a strong desire for equality. It is recommended that government should strictly use legal right and resource to guide netizens to analyze problems rationally, so as to reduce the biased and malicious phenomena of "labelling" and "stigmatization".

**Keywords:** critical discourse analysis, corpus, semantic preference, semantic prosody, stigmatization

### INTRODUCTION

In recent years, the appearance of new media changes the information distribution process of traditional media and formed a new mode to attract extensive public participation. As a new media based on users' information acquisition, sharing and dissemination, micro-blog attracts a large number of netizens by virtue of its popular functions as instant and fast information forwarding, direct and open online comments, and detailed reproduction of the event scene through text, expression, image and video (Guo, 2012). Nowadays, the public's discourse conveyed on the virtual network platform is regarded as the vane of social dynamics. It can be influenced by current political, economic and cultural events, and can also react to the development of future society. However, along with the timely transmission of information, these platforms also bring about cyber violence and rumors.

As a form of cyber bullying, the phenomenon of stigmatization has been on the rise in recent years and has become a typical problem in the development of network. Sociologists believe that it is a process in which a social group imposes and maintains the inferiority of human nature on the other group, reflecting a one-way naming power relationship between two social groups. In this process, one part with more discourse power strengthens certain attributes of the group by using strategy of labeling, weakening or ignoring the other attributes. At present, stigmatization research mainly focuses on sociology and social psychology. Sociologists pay

more attention to social process, power and discrimination, while social psychologists prefer to measure the cognitive process, perception and stereotyping of stigmatized people. In addition, there are many different research objects and methods. Most of the studies are carried out by random sampling of hundreds or thousands of adolescents, special patients and other groups, using the revised version of social distance scale (Butler & Gillis, 2011), mathematical statistics analysis (Latner & Stunkard, 2003), or dramaturgical theory (Yeshua-Katz, 2015). The above methods strongly prove the relationships and emotional attitudes among groups involved in the phenomenon of stigmatization, but rarely mention the social reasons and forming process behind it, which exists certain unilateralism and subjectivity.

In the context of discourse inequality and centralization on the internet, stigmatization mainly takes violent language as the medium to present netizens' ideas and attitudes as well as the social groups' attributes, differences and conflicts through text or discourse. Based on the theoretical framework of corpus-based Critical Discourse Analysis, this paper attempts to analyze the linguistic characteristics around typical events of stigmatization, so as to explore the attitudes and ideologies behind cyber violence.

### LITERATURE REVIEW

Critical Discourse Analysis (CDA) focuses on the relationship between text and discourse rather than a specific unit of language, using multidisciplinary theoretical knowledge to analyze and interpret the complex social phenomena. With the help of linguistic features of discourse and generated social background of specific events, CDA examines the emotion and attitude behind language structures, and reveals the complicated relationship between language, power and ideology (Xin, 2006). There are six main research approaches to CDA, including dialectical-relational approach (Fairclough, 2008), sociocognitive approach (van Dijk, 1989), theoretical-methodological approach (Foucault, 1998), social actor approach (van Leeuwen, 1996), discourse-historical (Wodak, 2009) and corpus linguistic approach (Hardt-Mautner, 1995). Among them, corpus linguistic approach is frequently used to satisfy the requirement of enhancing scientific and empirical quality. Under this background, a great number of scholars (Fowler, 1996; Baker et al., 2013; Cheng & Lam, 2013; McEnery et al., 2013; Nerlich & Jaspal, 2013; Kim, 2014; Shao & Hui, 2014) managed to introduce the method of corpus linguistics to Critical Discourse Analysis, and formed the "corpus-based Critical Discourse Analysis". Using computer software to handle large text can automatically help identify the trend and pattern of the text, avoid the possibility of selecting specific text to cater to writer's writing purpose, and reduce researchers' subjective cognitive bias (Jens & Jonathan, 2015).

Semantic preference and semantic prosody are often analyzed associated with corpus analysis results. The former one focuses on the relationship between a certain word and its lexical semantic group, while the latter pays attention to the relationship between a specific word and its collocation (words or phrases) in a concrete context. These two analyses show the vocabulary which are similar with or frequently used with key word from both macro and micro perspectives, therefore we can objectively know the speakers' discourse power, emotion, attitude, and ideology. Currently corpus-based Critical Discourse Analysis has gradually matured, but the deficiency is that data source is still limited to traditional media, and the new digital or social media do not obtain enough attention.

The study attempts to explore the following three problems: 1. How does the discussing focus on a specific event change? 2. What are the netizens' discourse power and status in network? 3. How does social reality influence the public ideology?

## RESEARCH METHODS

### Case Selection

The case under research comes from a self-built case database of cyber violence. The database was constructed in 2010 by scholars in the fields of linguistics, journalism and management. More than 50 cases have been collected, covering the fields of education, transportation, culture, tourism and environment. The screening process of determining a case includes four steps: 1. subjectively select cases from Internet and mobile Internet platform; 2. use 5W1H to define six factors of event: object, place, reason, approach, people and time; 3. discuss and include proper cases in the database according to the knowledge of linguistics, journalism and management; 4. select typical cases based on text information, participant information and event information. After scrutinizing all the cases included in the database, the study found that in recent years, cyber violence triggered by traffic accidents becomes a common phenomenon, among which the case of "Nanjing BMW Car Crash" is the most typical one. This event occurred in the summer of 2015. A BMW car rushed and run through red lights, which resulted in two persons' death on the spot. According to BMW owner's confession, when the accident occurred, he was delirious, feeling like that his wife and sister were killed. Later, Nanjing Neurological Hospital gave the identification that the driver had "acute transient psychosis".

The online discussion of "Nanjing BMW Car Crash", a common traffic accident, gradually evolved into a hot public topic. A majority of Weibo comments are concerned with the following subjects: BMW owner, judicial experts, and neurological doctors. Some biased language use like "精神病" (mental illness), "神经病"(neuropathy), "富二代" (second generation of the rich and the privileged), "砖家" (useless expert), "兽医" (veterinarian) show netizens' stigmatization on the collective identities of mental patient, men of wealth, professionals, and doctors. Therefore, this case was identified as a typical cyber violent event, the resultant public opinions and violent language derived from which are suitable to be the proper objects to analyze netizens' ideology.

### Analytic Methods and Tools

The study uses "南京宝马案" (Nanjing BMW Car Crash) as search term, selects Weibo user @头条新闻(@Toutiao)'s post of this car accident as the context of this event climax, ([http://weibo.com/p/1002061618051664/home?from=page\\_100206&mod=TAB](http://weibo.com/p/1002061618051664/home?from=page_100206&mod=TAB)). The study collected 4875 comments as corpus data, and analyzes them assisted with corpus software AntConc and KHcoder.

With the help of software AntConc3.4.3, the study obtains high-frequency words (Table 1), as well as collocation (Table 2) and concordance (Table 3) which are stemmed from four search terms "精神(病)" (mental illness), "神经(病)" (neuropathy), and attempts to find out the underlying pragmatic attitude and potential significance in this specific microblogging discourse by analyzing semantic preference and semantic prosody. Among them, semantic preference refers to the applied words' semantic environment, while semantic prosody suggests a special semantic category centered with keywords (Sinclair, 2004). In addition, research by means of software KHcoder generates a "精神病" (mental illness) related words' network map that helps us to learn the shift of topic focus and the expansion of topic area.

## RESULTS AND DISCUSSION

According to corpus results, we can see that when Nanjing police announced BMW owner was suffering from intermittent psychosis, the majority of netizens focused on psychotic patients, car owner, neurological hospital and judicial department of government as is shown in Table1;

Figure 1 demonstrates the shift of discussing focus and the expansion of discussing scope; Table 2 and Table 3 reflect more about netizens' attitude, position, as well as the stigmatized process of main entities in each local context of event.

## High Frequency Words

**Table 1: High Frequency Words in Weibo comments of "Nanjing BMW Car Crush"**

	<b>Noun</b>	<b>Frequency</b>	<b>Verb</b>	<b>Frequency</b>	<b>Adjective</b>	<b>Frequency</b>
1	精神病 (mental illness)	615	鉴定 (identify)	425	短暂 (intermittent)	192
2	南京 (Nanjing)	487	可以 (can)	357	有钱 (rich)	187
3	司法 (justice)	196	呵呵 [smile]	299	多 (many/much)	142
4	神经病 (neuropathy)	155	杀人 (murder)	209	急性 (acute)	157
5	中国 (China)	148	开车 (drive)	195	大 (large)	129
6	法律 (law)	133	有病 (sicken)	193	真的 (true)	87
7	医院 (hospital)	123	鄙视 [despise]	136		
8	宝马 (BMW)	119	吸毒 (drug)	132		
9	有钱人 (man of wealth)	86	应该 (should)	121		
12	社会 (society)	86	怒 [irritate]	104		
13	专家 (professional)	83	证明 (prove)	93		
14	彭宇 (Peng Yu)	70	犯罪 (commit a crime)	90		
15	证据 (evidence)	63	笑 cry [lol]	72		

Table 1 presents the high frequency nouns, verbs, and adjectives in the corpus. From the table, we can see nouns and verbs are the main source, while adjectives are the least ones. This disparity shows that netizens didn't use adjective, the explicit way, to directly express their attitude and emotion, but employ nouns to remind people of current concerns, and verbs to critically analyze the whole event and give available suggestions. Among these high frequency words, nouns involve the content relevant to event topic, such as "精神病"(mental illness), "神经病"(neuropathy), "南京"(Nanjing), "宝马"(BMW), "医院"(hospital), "法律"(law), as well as the objects netizens complained about, for example, "有钱人"(man of wealth), "社会"(society), "专家"(professional). In the verbs, some Weibo emotional verbs are worth paying attention to, like "呵呵"([smile] 😊), "鄙视"([despise] 😏), "怒"([irritate] 😡), "笑 cry"([lol] 😂), which reflect the mocking, dissatisfied, furious and doubtful attitude towards the whole event and participants. In addition, the use of modal verbs like "可以"(can), "应该"(should) represent that netizens hold a critical, urgent, and wait-and-see attitude.

Overall, the high frequency words in Table 1 as well as event background and participants all together highlight the focus of the event: mental illness, the negative image of Nanjing city, and the tense and antagonistic relationship between the object of the event conflict, which are

netizens and subjects of the event (car owner, police, doctor). In order to have a better knowing of the relationship between high frequency words, the study selects some top-ranked nouns and verbs to make a “精神病” (mental illness) related vocabulary network diagram (Figure 1).

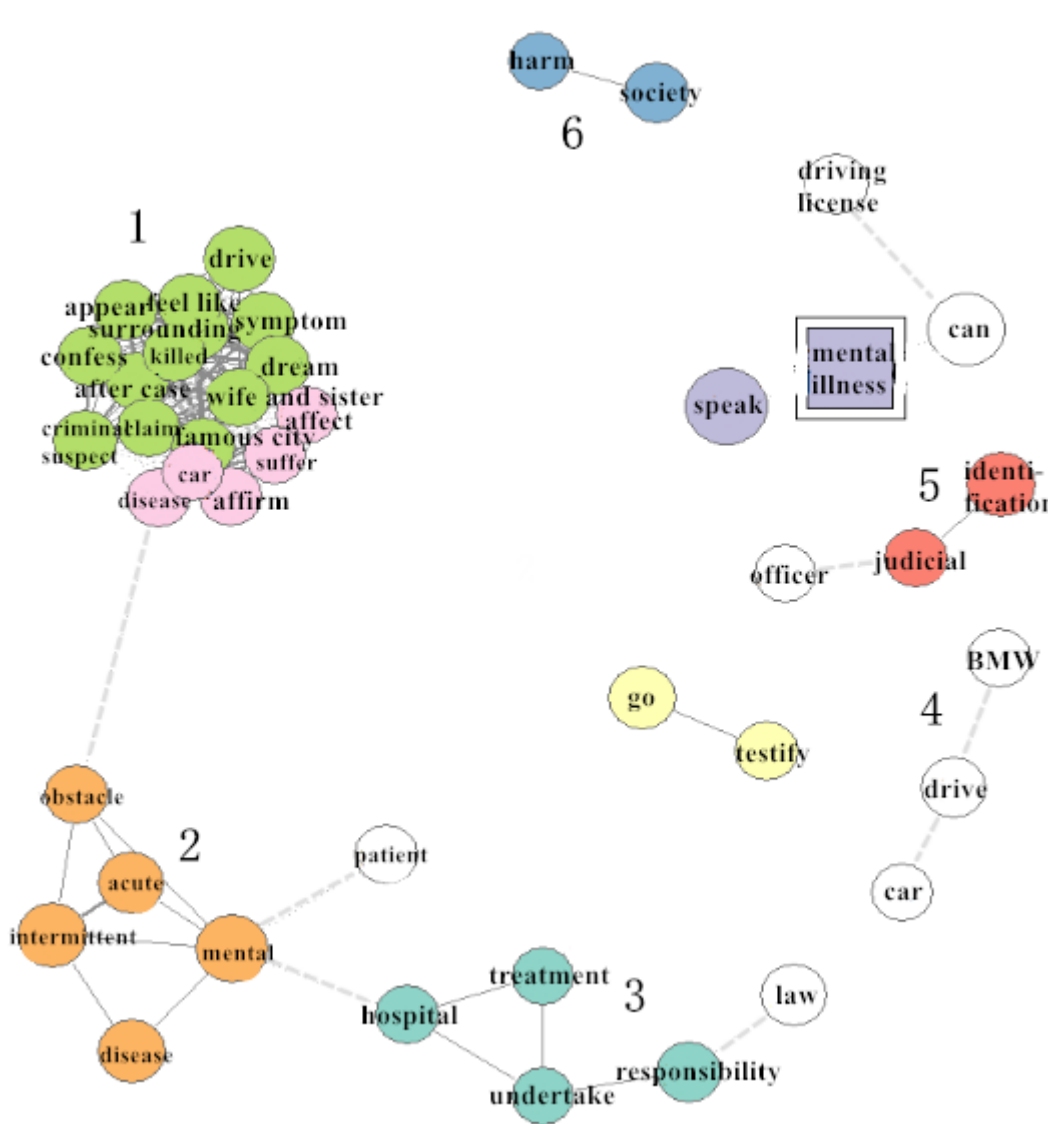


Figure 1 Network map of “mental illness”

As the above figure shows, the software KHcoder generates a related vocabulary network diagram which automatically forms six clusters. It helps us get a clear idea about the shift of discussion focus and the expansion of discussion scope (solid line represents the words which have direct relationship, and dotted line means the relationship is not so close). These six clusters mean that the topic of discussion has shifted five times: 1. basic information of event, 2. identification results, 3. psychotic patients, 4. rich men, 5. government department, 6. social harm.

The words in first cluster constitute the basic information of event, which demonstrates that the initial discussion was focused on the process of car accident; then the second cluster is about disease identification, therefore the discussion was transferred to transient psychosis; the third cluster means that the disease identification motivated netizens to expand the discussion topic to the group of psychotic patients; the fourth and fifth clusters explain that the topic shifted to the rich and government departments which are separately indicated by BMW

and judicial officials; and the last cluster represents the discussion had been broaden to the social harm which may be caused by psychotic patients.

Therefore, we find that the online discussion of events must go through a topic shift process and an expansion of discussion area. Besides, people's attention and the attitude towards events will change along with the addition of new information.

### Semantic Preference of the Collocation of “精神病” (mental illness) and “神经病” (neuropathy)

The meaning of words is the result of specific context, and the relationship between central word and its co-occurrence is mutually expected and predicted. According to the context around central word, semantic preference and semantic prosody can show people's emotion and ideology (Herring, 2004).

**Table 2: Top 16 Collocates with “精神病” (mental illness) and “神经病” (neuropathy) of Corpus Analysis**

Rank	Frequency	Intensity	Collocate	Rank	Frequency	Intensity	Collocate
1	2	9.74	飙升 (rise dramatically)	9	158	8.80	障碍 (disorder)
2	2	9.74	连坐 (be published for being related to)	10	2	8.74	遵守 (obey)
3	2	9.74	贫穷 (poverty)	11	2	8.74	诱发 (bring about)
4	2	9.74	纸老虎 (paper tiger)	12	2	8.74	行为能力 (capacity for action)
5	2	9.74	夸大 (exaggerate)	13	2	8.74	胡乱 (at random)
6	2	9.74	凌驾于 (outmatch)	14	4	8.74	突发性 (suddenness)
7	2	9.74	一视同仁 (make no exception)	15	2	8.74	猖狂 (furious)
8	24	8.94	病患者 (patient)	16	3	8.74	挡箭牌 (pretext)

As shown in Table 2, the semantic preferences generated by the collocates with “精神病” (mental illness) and “神经病” (neuropathy) in the corpus can be grouped into seven categories: (1) concerned with acute transient psychosis in the event, e.g. *patient, disorder, suddenness*; (2) concerned with mental-illness patients in the society, e.g. *paper tiger, capacity for action, pretext, outmatch, obey, be published for being related to*; (3) concerned with car driver who had suffered acute transient psychosis in the event, e.g. *at random, furious*; (4) concerned with Nanjing hospital, e.g. *diagnose*; (5) concerned with ordinary people, e.g. *poverty*; (6) expressing acts and behaviors, e.g. *exaggerate, damage, exempt*, (7) expressing netizens' overall attitudes and views on the incident, e.g. *rise dramatically, be published for being related to, make no exception, bring about*.

According to the above, all the frequent collocates with “精神病” (mental illness) and “神经病” (neuropathy) formed three main semantic preferences: disease, patients, and the impact of patients on society. We can see from that the grassroots netizens have the “discourse power” to

freely express their opinions from different perspectives, which indeed affects the commentary atmosphere of the whole event on the website, but this phenomenon did not produce the corresponding power which could influence or change the development or outcome of events. Through this effective way, the grassroots netizens speak out their own ideas, however, the blowout of all kinds of voices shown online produced insufficient effect, and the discourse power possessed by them did not get the same amount of practical meaning in the event. In addition, the semantic sets formed by semantic preference demonstrated the event focus of netizens. In recent years, some negative phenomena of bitterly disappointing events like Peng Yu case (a warm-hearted man called Peng Yu who held an injured old lady up in an accident was later charged as perpetrator by that lady) and the car racing among the rich who totally ignore the traffic rules have already left deleterious impression of wealthy people and local governments on the public. Some netizens emphasized the negative part of the rich, and viewed the problem from a biased aspect and criticized the problem with hatred, regarding wealthy people as unscrupulous, profligate, flaunt-wealth, and sometimes they could use money for special rights. This is to generalize the minority's characteristics as the whole collective identity's characteristics, which ignores the differences among individuals. While as for the patients, some netizens thought they were in a relatively weak position in society and needed to be "treated specially" in all aspects, which ignores the importance of equality for all. In addition, compared with grass-root netizens, the rich, judicial officials, doctors, and mental illness patients have a relatively small number of people, who are reluctant or not able to make sound on the internet, which caused the inequality of discourse power in the network, and passive position in public discussion. This kind of partial outlook and irrational behavior have brought about moral harm, and deepened misunderstanding and cracks among different social groups, which resulted in the social emotional opposition.

### **Semantic Prosody of the “精神病” (mental illness) and “神经病” (neuropathy)**

Corpus linguistics studies the language in real context. Firth (1957) argues that the meaning of words is the result of context selection, and there is mutual expectation and foresight between the keywords and their co-occurrences. Through the context around the keywords, semantic prosody can show people's emotions and opinions ideologically, thus reflecting the differences of attitude and focus among different groups on public events from societal and political perspectives. In order to understand the netizens' thoughts and evaluations of the event, the research uses AntConc 3.4.3 software to extract concordance from the corpus with “精神病” (mental illness) and “神经病” (neuropathy) as keywords, and screens five sentences as examples.

**Table 3 : Emotional Connotation in the Concordance of “精神病” (mental illness)**

1	当年一个 <u>彭宇案</u> 导致国人 <u>道德缺失</u> ，如今 Many years ago, “ <b>Peng Yu</b> ” case caused the <b>lack of morality</b> among Chinese people, now the man who suffered	<b>精神病</b> ( <b>mental illness</b> )	也能开宝马。 <u>南京中院</u> 是想引领 <u>司法</u> 改革吗？ could also drive on the road. Does the court of <b>Nanjing</b> try to lead a <b>judicial</b> reform?
2	精神病也要 <u>承担</u> 法律责任、付出 <u>代价</u> ， Mental illness patients should also <b>undertake</b> legal responsibility and <b>pay the price</b> , who suffered	<b>精神病</b> ( <b>mental illness</b> )	对社会的 <u>危害</u> 更大！ are a greater <b>harm</b> to society!
3	别继续用舆论 <u>审判</u> 。如果他 <u>真的</u> 是间歇性 Don't <b>judge</b> the case with public opinions. What if he's <b>really</b> a patient of	<b>精神病</b> ( <b>mental illness</b> )	，真的在 <u>犯病</u> 呢？ , and <b>having the attack of the illness</b> then?
4	司法鉴定的结果 <u>没问题</u> ，但“急性短暂性” There is <b>no problem</b> about the result of forensic authentication, but the “acute intermittent	<b>精神病</b> ( <b>mental illness</b> )	” <u>不应该</u> 成为 <u>免除</u> 刑事责任的理由。 ” <b>should not</b> be the excuse of <b>exemption</b> from criminal responsibility.
5	有钱有势就是 <u>间歇</u> The rich and powerful can be diagnosed as <b>intermittent</b>	<b>精神病</b> ( <b>mental illness</b> )	，没钱的 <u>贫民</u> 就 <u>活该</u> 被欺凌。 , and <b>the poor</b> without money <b>deserve</b> to be bullied.

Semantic preference constructs semantic environment, which contributes to semantic prosody. Table 3 demonstrates the sentences in which there are several highly-collocated words with “精神病” (mental illness) and “神经病” (neuropathy) in Table 2. The three main semantic preferences ---- disease, patients, and the impact of patients on society, all show the negative semantic preferences and reflect discourse producers’ emotion and attitude toward event, which specifically manifested that the netizens are filled with curiosity and suspicion about the identification process of mental illness, desire for equal treatment among all social groups, worry and anger about the imbalance and injustice of social power, and they are worried about the recurrence of similar incidents and the future development trend of society. However, the negative semantic prosody does not only show negative attitudes. From another point of view, netizens’ criticism of this social phenomenon reflects their strong sense of mission and responsibility, who pay close attention to the progress and development of society.

The five sentences shown in the Table 3 use interrogative sentences, exclamatory sentences, and modal verbs to indicate the urgency of fulfilling obligations and responsibilities. These language uses imply that netizens made all the voices, in which they proposed their questions judged the answers from subjects of the event. In other words, BMW car owner, Nanjing judicial department, and brain hospital are the doers of relevant actions and also the objects of judgement. The language above demonstrates the social status of their corresponding social groups. The netizens in the real life are the people who are oppressed with little opportunity to use power. Since the status, power and other elements are not involved in virtual network, netizens make full use of this platform to fulfill their discourse power, without too much consideration of the impact of their unscrupulous discourse, which to some degree reflects the desire for equality in real life. The car owner, officers, and doctors are the decision maker in life or work, so they have and exercise their power in the society, without the need to further express themselves on the internet. However, the discourse power used by netizens are not powerful enough to change or influence the development or results of the event.



## CONCLUSION

Under the background of rapid development of information technology, more and more social media platforms appear. Since there's no requirement of user's identity, Weibo has become the largest carrier of information and the most powerful media in China. With the fast speed of information circulation and the increasing expansion of information coverage, netizens bear the pressure of receiving all kinds of information and remolding ideologies the moment they enjoy the quick browsing of news.

Due to the relevance and diffusion of negative emotions, people are prone to project what they saw or experienced on online discussion and expand the negative effect. In this case, the stigmatization of BMW owner, psychotic patients, government officers, and doctors is severe in netizens' online discussion. In order to know the underlying ideology and emotion behind texts, the research makes use of corpus linguistic approach to Critical Discourse Analysis. Through analyzing high frequency vocabulary, collocation, concordance, and comparing semantic preference and semantic prosody, we get the following results: (1) The online discussion of a certain event must go through a process of topic shift and an expansion of discussion area; (2) Contrary to the real life, many grass-roots netizens get a relatively strong discourse power while expressing opinions on network. They tend to stigmatize a certain social group by their stereotypical concepts; (3) The specific attributes attached to each social group should not be the cause of their unfair treatment. Netizens should keep rational thinking and consider the individual differences so as to avoid the formation of a partial view; (4) There are more and more ways for netizens to express their views and attitudes directly on the Internet, but the power of words is not effective. The research results are of great significance to the monitoring and governance strategies of Internet public opinion. Different social status and power in real life make people have a strong desire for equality. It is recommended that government should strictly use legal right and related resource, and guide netizens to analyze problems rationally, so as to reduce the biased and malicious phenomena of "labelling" and "stigmatization".

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