

The Connection between Pronouns and Distorted Thinking: Depressed Selves in an Online Depression Community

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Abstract

Limited studies have investigated the presence of cognitive distortion and emotional disturbance in online depression narratives. Additionally, the intricate relationships between the expression of depressive emotions, the construction of the depressed self and the manifestation of cognitive thinking lack an intuitively perceived connection. This study explores the affective cognition of a group of young individuals who shared their depressive emotions on the ‘Zoufan’ Weibo page. A set of 2000 comments was selected and coded, which revealed a prevalence of negative emotions within the community. Pronouns, a pivotal discursive resource and a cue for studying identity work, were further mapped with the top 10 negative emotions. Exploratory analyses revealed the four most salient distorted thinking patterns: self-isolating thinking, self-blaming thinking, absolutist thinking, and catastrophic thinking. The implication of this study lies in assisting both the public and Internet users in recognizing pronouns as nuanced emotional and cognitive cues of online depression narratives.

Keywords: Depressed Self, Affective Cognition, Negative Emotion, Pronouns, Online Depression Communities

1. Introduction

Depression has affected approximately 280 million people globally (World Health Organization, 2023). Moreover, it has proved to be the leading cause of most suicide cases (Ferrari et al., 2013). Suicide and attempted suicide “is best seen as a cry of pain – a response elicited by this situation of entrapment – and only secondarily as an attempt to communicate” (Williams, 2001, p. 139). The concept ‘entrapment’ here resonates with the term ‘emotional/mental trap’, a phenomenon common among most people but occurring more frequently and intensely to individuals overwhelmed by emotions and thoughts. For depressed people who grapple with biased cognitive processing and dysregulation of emotion, these traps could potentially escalate to the mental entrapment that has been widely studied in the cognitive theories of depression (e.g., Beck, 1979).

In examining affective and cognitive disorders, negative emotions and pronouns have been previously recognized as potent linguistic indications (Edwards & Holtzman, 2017; Rude et al., 2004). Moreover, it was found that pronouns exhibit a more significant association with suicide compared to negative emotions (e.g., Pennebaker & Chung, 2014). Pronouns are argued to be an attentional focus that can reveal not just who someone is attending to but also how they are processing the situation (Tausczik & Pennebaker, 2010), and the attention can transition between the external worlds and the internal sensations or emotions (Pennebaker, 1982). For instance, a significant correlation exists between suffering and the elevated use of first-person singular pronouns, including both physical pain and psychological distress (Rude et al., 2004). Regarding depression, numerous studies have also consistently demonstrated the prevalent usage of first-person pronouns in texts related to depression, which even reliably indicates people’s levels of depression (Ren et al., 2024; Zimmermann et al., 2017). The relationship is reciprocal: depression affects the linguistic representation, while linguistic patterns, in turn, offer insights into the depressive condition.

Building upon the above established research tradition, this study expands beyond the scope of prior research that primarily focused on self-attentional language (i.e., ‘I’ pronouns) to include second- and third-person pronouns, as well as indefinite pronouns, with an aim to provide

a more comprehensive view of the relationship between pronoun usage, emotional expression, and cognitive processing.

2. Literature Review

2.1 Distorted Thinking

A notable way that depression shapes one's perception of the self and the world is distorted thinking, which means overly rigid patterns in thinking that are always associated with automatic negative thoughts, interpretations, judgements, and assumptions (Harrison, 2021). Previous studies revealed several representative cognitive distortions, including: (1) Absolutist thinking that usually overlooks alternatives and focuses on totality, which was argued as a cognitive vulnerability factor capturing the severity of affective disorders more faithfully than negative emotion words (e.g., Al-Mosaiwi & Johnstone, 2018); (2) Catastrophic thinking that evaluates the probability of dreadful or catastrophic scenarios, perceiving them as highly likely, despite their improbability (e.g., Gellatly & Beck, 2016); (3) Dichotomous (black-and-white) thinking or 'all-or-nothing' thinking that reflects a tendency to view situations in binary opposition and unwillingness to consider the middle ground (e.g., Jonason et al., 2018); (4) Overgeneralisation that often reaches to a global and negative statement towards the self, across situations and in memory, even based on one or few instances (e.g., Raes et al., 2023), among others.

While numerous studies have outlined these prevalent distorted thinking patterns associated with depression, much of their data is derived from physical communities/populations using methods such as face-to-face interviews, questionnaires, experiments, medications, psychotherapy, cognitive assessment, medicine treatment, structural modelling (see LeMoult & Gotlib, 2019). There has been a notable lack of research into the prominent thinking patterns in depression discourse within online contexts and via discourse analysis. This raises the question of whether the narratives of depression in Online Depression Communities (ODCs) also mirror these thinking patterns in offline situations, because shared stories in social media, "a site of struggle" (Page, 2018, p. 3), is a new discourse genre. Notably, these thoughts, occurring at the cognitive level, are also coloured by emotional states. Hence, this study conceptualises distorted thinking as both emotional and cognitive and employs the term 'affective cognition' to describe how these mutually influenced factors play a role in shaping the depressed self online.

2.2 Affective Cognition of Depression

‘Affective cognition’ is a concept that incorporates the “processing of emotionally salient information in contexts requiring cognitive evaluation to generate an appropriate response” (Elliott et al., 2011, p. 153). It highlights an interface between emotional and cognitive processes, where cognitive factors critically modulate and are influenced by emotional states. While this concept is more intricately explored through quantitative methods in neuroscience, this study focuses on its manifestations via linguistic markers from a qualitative perspective and studies how the two processes integrate to present the depressed self.

Over forty years of research into the cognitive and emotional aspects of depression has highlighted the critical role of language and linguistic indicators. Many have focused on the intricate relationships between cognition, emotion, and self, with two keywords consistently revealed and reiterated: (1) Self-focus, which is more about emotional disturbance. Depression narratives are characterised by a high self-attention (e.g., Rosenbach & Renneberg, 2015; Trifu et al., 2017), which is often realised by the ubiquity of the first-person singular pronouns; (2) Negativity, which is more about cognitive biased. Beck (1979) has proposed the cognitive/negative triad in depression, which involves automatic, spontaneous, and persistent negative views about the self, the world, and the future. As depression is represented by “increased elaboration of negative information, by difficulties disengaging from negative material, and by deficits in cognitive control when processing negative information” (Gotlib & Joormann, 2010, p. 285), depressed people are inclined to use more negatively valenced words (e.g., Rude et al., 2004).

The above two crucial aspects are interconnected: The depressive self-focusing style leads to intensified negative affect and outcomes, which, in turn, forms a vicious cycle of maintaining self-attention and exacerbates the negative emotions and depressive disorder. More importantly, both underline the distorted thoughts regarding the affective cognition of depressed people, which are all realised via language - *what* is being said and *how* things are being said. However, among studies on the cognitive and/or emotional aspects of depression, very few mapped the two from a discourse analytic perspective. Placing affective cognition at the forefront of the investigation, this study extends the focus to encompass the online depression narrative, an underexplored area. It underscores the significance of attending to such narratives in tandem with the flourishing of ODCs.

2.3 Online Depression Communities (ODCs)

In today's digitally aided world, online depression communities (ODCs) provide a peer-to-peer space for users to share and communicate their depressive experiences (Prescott et al., 2020). The development of ODCs is realised and promoted by abundant communicative affordances that shape and are shaped by the users' subjectivity, self-presentation, and interactions (Georgakopoulou, 2016). One of the most essential affordances is anonymity, which allows users to be more disinhibited and express more negative emotions and stigmatised identities, which tends to invite greater social support online (e.g., Zhang et al., 2018). This, in turn, catalyses more self-disclosure to strangers online than in face-to-face communications (Turkle, 2015), including life experience sharing in miniaturised form with various semiotic resources.

Discussing emotional and cognitive dimensions of depression in ODCs holds significance, because the characteristics of depression discourse online, along with the manifestations of distorted thinking, may vary from those in offline narratives, as Internet users often adopt online personae and strategically or selectively choose certain aspects to present online (Bullingham & Vasconcelos, 2013). When presenting the (in)authentic self online in ODCs, the users need to find a balance between the self-disclosure (visibility) of the depressive experience and anonymity (invisibility) of personal life. Hence, virtual identities are often constructed and fluid, and therefore, they may reflect new emotional and cognitive patterns of depression. Notwithstanding, the boundaries of online and offline identities are dissolved to a large extent, since online identities are re-creations of offline selves (Bullingham & Vasconcelos, 2013), thus ensuring a trustworthy connection between an individual's online self-presentation and their real-world identities. There are two types of ODCs according to different operation styles (Tang et al., 2021): Managed ODCs and unmanaged ODCs. Managed ODCs, with administrator(s) and support groups for providing help, often contribute to positive mental health outcomes, such as enhancing self-care efficacy, self-management, and self-empowerment (e.g., Mirzaei & Esmailzadeh, 2021). In contrast, unmanaged ODCs are spontaneously formed by depressed people and develop without professional management, with negative emotions being the most prevailing themes (Tang et al., 2021) that are usually associated with higher levels of depression symptoms (Settanni & Marengo, 2015).

Most current literature on ODCs investigates social media platforms dominated by English-speaking users, such as Facebook, Reddit, and Twitter. However, due to different socio-cultural

influences, their findings may not be applied to China's case. Even among the minimal studies discussing ODCs in China (Li et al., 2016; Zhang et al., 2018), most focus on managed ODCs and tend to foreground the multi-faceted advantages of ODCs, while little research paid attention to the emotional and cognitive struggle of the users in day-to-day battling against depression in unmanaged ODCs. This study enriches the minimal literature on unmanaged ODCs in China by selecting 'Zoufan' Weibo page, the largest unmanaged ODC in China (Tang et al., 2020), as the research site. It takes 'Zoufan' as a *nexus of practice* (Scollon, 2001), where members could accomplish, manage and negotiate the depressed self (Benwell & Stokoe, 2006) via the online depression narratives.

2.4 Pronouns in Online Depression Narratives

Language functions as a cognitive lens (Evans, 2012). As mentioned, the pronoun is a salient linguistic unit/category that draws much attention in various studies on depression. Particularly, the first-person singular is ubiquitous in online depression narratives, which underscores a maladaptive self-focus attention as a cognitive bias in depression. Moreover, it is related to symptoms of depression and indicative of an unfavourable trajectory in the future progression of depression clinically (Chung & Pennebaker, 2007; Howes et al., 2014). Conversely, it is argued that the greater use of first-person pronouns in posts attracted more responses (Choudhury & De, 2014). For example, the first-person plural pronouns such as 'we' and 'us' are constructive in expressing users' sufferings and empathy towards others and forming a united front in battling against depression (Zhang et al., 2018). Non-first-person pronouns were the second most prominent but much less used category in ODCs, suggesting user's inclination to engage with their audiences (Choudhury & De, 2014).

The pronoun usage and cognitive patterns are closely interweaved with the depressed self-constructed in unmanaged ODCs, which provides insights into close-to-life depressive experiences in everyday, mundane narratives. Therefore, instead of presenting breadth, this paper provides an in-depth analysis of pronouns emerging from the online depression narrative. It investigates how the sharing of depression is conceived of in terms of pronouns and how the pronouns reveal various emotional and cognitive traps in terms of distorted thinking.

2.5 The Current Study

Sina Weibo is one of the largest microblogging platforms, social networking sites, and public opinion arenas in China (below referred to as Weibo). Users aged between 18 and 30 are the backbone of Weibo, accounting for 75% (data.weibo.com, 2019) of all users. Among them is a group of people frequently visiting ‘Zoufan’, a Weibo page created by Ms Ma Jie, a college student born after the 1990s who committed suicide in 2012 due to depression.

The page listed a farewell post via a time function, only appearing the day after her death. It has echoed tremendous followings since then. The account has about 617,000 followers (by Jan 2024), and most are mainly between 16 and 26 years old (Yang et al., 2019) and show apparent depressive moods or disorders in their comments. Notably, this last post became a symbolic nexus to attract increasingly depressed young people who became ‘regular members’ confiding their depressive emotions and experiences.

The expansion of ‘Zoufan’ followers throughout the past decade attests to the page’s vitality as an unmanaged ODC and its visuality as an intersection for youth’s communication on depression, thus adding to its research values as a site for mental health study. However, among the limited studies on ‘Zoufan’ (e.g., Gao & Meng, 2019; Meng & Sun, 2019; Yang et al., 2019), most studied suicide detection and prevention by artificial intelligence via textual representations. However, the mechanized and model-oriented frameworks for instant interventions are insufficient to describe subtle sentiments of depression and the more complex interrelationships between emotion, cognition, and depressed self.

This study attempts to understand the construction of the depressed self in ODCs by exploring the affective cognition of ‘Zoufan’ members via the usage of pronouns. It maps emotions with pronouns and then identifies the most salient thinking pattern associated with them.

3. Methodology

This research adopts a discourse analytical perspective to study online narratives on emotions and selves. As an expression of embodied human actions and reality, narrative is the container for us to examine how human experience and selves are represented, positioned, constructed and reconstructed in stories both in linguistic and mental forms (Riessman, 2008). Here, the self/selves or *sense of self* includes the mind, personality, soul, and psyche of individuals in an undefined way (Poster, 2001). An individual is distinguished from others by important self-definitions and self-

understandings regarding interests, attitudes, and behaviours. However, separate individuals share homologous habitus in a *universe of practice* and *field* (Bourdieu, 1977). Each comment under ‘Zoufan’ is a point of linkage among the community’s whole network of linked practices. The multiple linkages with the recurring sharing then make ‘Zoufan’ a nexus through which the participants perform meaningful social functions and behavioural repertoires. Hence, the depressed self here is deemed a social process and emerges through social interaction (Bamberg, 2011) in the context of unmanaged ODCs.

3.1 Small Stories Research

Although narratives online share similarities with offline ones in terms of ‘story’- related factors, stories online may not be narratives at all, and more often than not, present ‘atypical’ forms. This further created the conjunction between narratives online analysis and the small stories paradigm.

‘Small stories’ refers to stories that happen in everyday, mundane situations (Bamberg & Georgakopoulou, 2008). It is an umbrella term that covers under-represented accounts of past, ongoing and future events. Small stories research paradigm attends to neglected, silenced, untold, devalued, and disenfranchised forms of everyday communication, or even the colloquially speaking – ‘nothing’ in the sense that the discursive practice actually may not result in stories (Bamberg, 2012; Bamberg & Georgakopoulou, 2008). Notwithstanding, the sharing captures the micro and fleeting aspects of lived experience.

As an “epistemology and a critical framework for narrative and identities analysis” (Giaxoglou & Georgakopoulou, 2021, p. 4), the small stories paradigm has strong reasons to be included in the study of selves on social media : (1) empirical: the prevalence of small stories on social media platforms; (2) methodological: the tools of small stories in examining fragmented and atypical stories on social media; and (3) epistemological: the micro-perspective investigation of small stories for understanding the socio-political potential of social media engagement (Georgakopoulou, 2016). Most comments under ‘Zoufan’ in this research are small, tiny or even talk of ‘nothing’, aligning with the small stories research paradigm.

3.2 Data Collection and Analysis

Python was used to trace and crawl the comments under the last post of ‘Zoufan’ between August and December 2020. A total of 67,614 pieces of comments (after all invalid and blank values were

removed) posted by 11,798 users have been collected. The most active users who frequently posted comments and replies were extracted and further narrowed down to the top 20 users, who are referred to as ‘core participants’ in this paper by pseudonyms.¹ A pivotal epistemology here is that it is difficult and not a top concern to confirm whether those participants were clinically diagnosed with depression, but by filtration, a group of followers who developed a behavioural habit of sharing emotions under ‘Zoufan’ continuously and regularly can be identified. A total of 2,000 pieces from these Top 20 users (100 pieces for each) were then selected and further imported into NVivo for coding on emotion (a keyword of this study), followed by the coding of pronouns.

Altogether, 1,510 pieces of comments, which accounted for 75.5% of the 2000 pieces, are directly relevant to the sharing of emotions. Given that negative emotional sharing is a central theme of unmanaged ODCs, 18 types of negative emotions were further classified by drawing on a negative emotion typology tool developed by the Delft Institute of Positive Design (2022). Figure 1 shows the distribution of the negative emotion types. This study then focused on the top 10 negative emotions and mapped them with the pronouns.

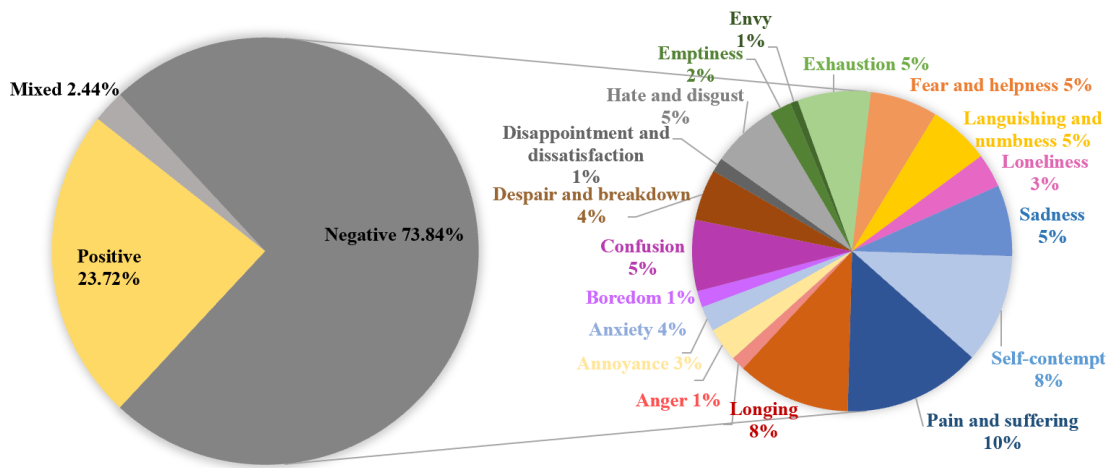


Figure 1. Emotion Typology of the 2,000 Pieces Dataset

To present the findings more systematically, the pronouns were categorised into two kinds: a. Definite pronouns, including first-person, second-person, and third-person pronouns; b. Infinite pronouns, represented by universal pronouns and negative pronouns in this study (refer to the following section).

¹Two criteria were used for sorting the core participants from the data population: (1) During the collection period, the participant at least wrote comments continuously or discontinuously in three different months. (2) The total frequency of comments by the participant must be at least 114 pieces.

4. Results

This section elaborates on the four most salient distorted thinking associated with each type of pronoun. Notably, these cognitive patterns are not isolated; instead, they interconnect and occasionally manifest concurrently in one or more comments. They exert an aggregated impact on the core participants' perceptions of themselves and the world of everyday living with depression.

4.1 Definite Pronouns

Since only 5.5% of the 2,000-piece comments occurred with the third-person pronouns, third-person pronouns are not included here. The focus is the first- and second-person pronouns.

4.1.1 *First-Person Pronouns: Self-isolating Thinking*

Nearly all negative emotions were self-centred, represented by the first-person singular 'I' and the accusative case 'me', aligning with the prior findings that high self-attentional focus is a salient attribute of highly negative emotional states such as depression. However, about 17% (N=335) of the 2,000-piece comments omitted 'I' due to the loose subject-predicate structure in Chinese (Huang, 2016), even though the subject still pointed to 'I'. This significantly differs from previous studies that tended to associate the use of first-person singular with depression, even considering 'I' a better indication of depression than negative emotion words (Choudhury & De, 2014; Chung & Pennebaker, 2007; Rude et al., 2004). Hence, this study argues that the first-person point of view with a high self-focus, whether with or without 'I', should be listed as an indispensable linguistic feature of depression narratives.

The point leads to one of the most salient distorted thinking conveyed by the pronoun 'I': Self-isolating thinking, under which the core participants build a soliloquy world, with 'I' always being the only protagonist and their inner turmoil being the top concern. Typical manifestations include two types of question-answer patterns:

1. Asking a question and answering it themselves.
2. Asking a question without expectation of a serious or professional answer.

Example Series 1:

- (1) Katie: 我现在连辨别真友的能力都丧失了? 没有一个是真心。
Have I even lost the ability to discern true friends? None of them are sincere (to me).
- (2) Flo: 又脑鸣了, 声音好大。救命! 脑鸣好吵。
能不能不要脑鸣了, 消停会儿?
The ringing in my ears has started again, and (it is) so loud. Help! The tinnitus is so disruptive.
Can (my) tinnitus stop for a while?
- (3) Molly: 凌晨到现在一直发作着 真的感觉脑子锈住了快要崩溃啊。感觉说不出的难受 好像被拖进沼泽地了头也感觉懵住了 **重度抑郁的节奏?**
The bout (of depression) began in the wee hours and has lasted until now. (I) really feel like (my) brain has stopped working, and (I am) about to break down ah. The intensity of the suffering is indescribable, as if I have been dragged into a swamp and my head feels numb. (Does this mean) **going to aggravate into major depression?**

First, the core participants would pose questions to themselves, seemingly to solicit feedback or foster interaction, but invariably answer these questions themselves. Moreover, their answers often filtered out positive information about a specific situation and tended to maximize the negative part. For instance, in the Example Series (hereinafter referred to as ExS) above, Katie questioned herself about ‘the ability to discern true friends’, implying an experience of being hurt or cheated by friends, and answered the question herself.

Second, this study supports the previous findings that question is a significant marker of depression, especially for those who do not expect concrete and explicit answers (Gilat & Tobin, 2009; Kupferberg & Gilat, 2012). This study further clarifies that the core issue lies in the question’s nature, being seen either as a self-complaint or a query that eludes definitive answers. Flo, in the above ExS 1 (3), inquired about the possibility of her tinnitus stopping temporarily, a question that remained unanswered by others, as the origin of the tinnitus was specific to her own ears. Likewise, Molly described the anguish of his emotions when confronted by depression (‘bout’). She asked whether the mentioned symptoms suggested a rapid progression into major depression. However, other ‘Zoufan’ followers, being strangers online and unfamiliar with her situation, were unable to provide an accurate answer.

In addition to the first-person singular, the first-person plural ‘we’ was tracked. Surprisingly, unlike previous studies that highlighted a sense of belonging via ‘we’ in online depression support groups in China (e.g., Zhang et al., 2018), less than 1% (N=15) comments out of the 2,000-piece core participant dataset contained ‘we’. This pattern resonates with the above argument that the participants isolated themselves by creating a self-enclosed, soliloquy world, which made the interactions between followers seldom happen. This point is also evidenced by the whole data population: only 18% of comments are replies to others, which concurs with the findings of previous research suggesting that sustained dialogue or topic development is not the prevailing interaction in social media (e.g., De Fina, 2016).

4.1.2 Second-Person Pronouns: Self-Blaming Thinking

Only 8.7% of the 2,000-piece comments occurred with the second-person singular pronouns, including less than 1% of second-person plural pronouns. Considering the minimal presence of the second-person plural, this section mainly focuses on the second-person singular.

As observed, the three most salient usages of the singular ‘you’ include:

- a. To interact with interlocutors (about 50%). The singular ‘you’ has been used to connect with each other more often than the first-person plural ‘we’, indicating the discrete nature of the comments.
- b. To refer to a particular person, such as a lover, a friend, or a family member (about 30%). This usage of ‘you’ also manifests the pattern of soliloquy, since the participants were talking to themselves without @ (or mentioning) the referred person(s).
- c. To address oneself (about 10%). This usage of ‘you’, intriguing and drawing the author’s attention, communicates the core participants’ emotional struggles, leading to another distorted thinking: self-blaming thinking.

Example Series 2:

- (1) Summer: 特别讨厌我现在这个样子，烂泥一样。你连自己都不喜欢，怎么能要求别人喜欢你？
(I) particularly hate the way I am now, like a pile of mud. If you do not even like yourself, how can you expect others to like **you**?

- (2) Katie: 总是苦着一副脸，谁靠近你？
(You) always show a bitter face, who will approach **you**?
- (3) Flo: 不要把自己想的太重要，任何人都可以取代你。
Do not take yourself too seriously (since) anyone can replace **you**.

Addressing oneself with the singular ‘you’ often occurs in self-questions or questions posed to oneself. For example, in ExS 2 (1), Summer conveyed her sluggishness, powerlessness and strong self-contempt. She then shifted from the first-person point of view and blamed herself, using the singular ‘you’. By juxtaposing ‘liked by others’ with ‘liking oneself’, she insinuated her unworthiness to receive love from others. Similarly, Katie used the singular ‘you’ to introspectively question her own persistent exhibition of a bitter demeanour, suggesting that she was someone others did not wish to engage with. Similarly, Flo viewed herself as markedly insignificant, underscoring a low self-worth.

Shame can ‘empower’ one to split himself or herself into the first and third person (Hong, 2020). “Shame is by nature recognition. I recognize that I am as the Other sees me” (Sartre, 1993, p. 222). This division of the self, facilitated by the first and third points of view and bridged by the second-person singular pronoun ‘you’, reflects the core participants’ self-contempt and shame. Consequently, viewing oneself through others’ eyes can also be indicative of depression.

4.2 Indefinite Pronouns

Infinite pronouns are “pronouns whose main function is to express indefinite reference” (Haspelmath, 1997, p. 11), such as the *some*-series (e.g., ‘somebody’ and ‘somewhere’), the *any*-series (e.g., ‘anybody’ and ‘anything’), and the *no*-series (e.g., ‘nobody’ and ‘nothing’) in English. The finding has revealed two most significant and widely used indefinite pronouns: (1) Universal pronouns *any*- and *every*- in the univocal and negative-polarity environments (see more in Baker, 1970) and the quantifiers *all* and *each*; (2) Negative infinite pronouns, such as ‘no-’ and neither.

4.2.1 Universal Pronouns: Absolutist Thinking

Absolutist thinking has been observed through the indefinite pronouns ‘every-’ and ‘any-’ that indicate universality and extreme, such as everyone, everything, anyone, anything or simply ‘all’.

Example Series 3:

- (1) Lily: 所有人在努力!! 只有我快三十了还是碌碌无为! 一眼望到头的日子! 没学历, 没爱好, 生活都好无趣!!! 我这种人真该拜拜!
- Everyone** is working hard! Only I am almost 30, but still accomplish nothing! I could see the end of this life! (I have) no education background, no hobbies, (and my) life is so dull! Someone like me should really (say) bye-bye!
- (2) Jane: 我深处黑暗里, 努力挣扎, 失去了对**所有**美好的期待。
从来没觉得死是什么开心的事情, 只是没什么想要活着而已。
- I am deeply trapped in the darkness, struggling hard, and have lost **all** expectations for **anything** positive.
(I) have never thought that death is something joyful; it is just that I do not have any desire to be alive anymore.
- (3) Amos: 一切就像早已注定。瞬间就觉得**啥**意义都没了。
真的扛不住了。
要是能顺势死掉就好了。
- Everything** seems predestined long ago. In an instant, (I) feel like **nothing** made sense.
(I) really cannot bear this anymore.
If only (I) could just die without resistance.

The absolutist thinking is closely linked to the participants' suicidal ideation. All the comments in the above example series have demonstrated a painful longing for death. For instance, Lily in ExS 3 (1) exaggeratedly compared herself with 'everyone' and categorised herself as a member of a group perceived as losers ('accomplish nothing'). Also, absolutist thinking can be displayed by ruling out other perspectives or possibilities, often leading to hasty generalisations. In ExS 3 (2), Jane denied her efforts ('struggling hard') via the pronoun 'all' and the pronoun 'anything'. Hence, she depicted herself as a passive recipient of the suffering, being helpless and powerless, which further led her to a hasty conclusion that death is a sorrowful outcome, but its opposite, life, is also undesirable. Likewise, Amos in ExS 3 (3) framed all the happenings as predetermined whilst communicating the absolutist thinking via the pronouns 'everything' and

‘nothing’. Hence, he justified his desire for death by claiming an inability to alter the prearranged fate or to create something meaningful.

4.2.2 Negative Pronouns: Catastrophic Thinking

Often intertwined with absolutist thinking is catastrophic thinking that consistently assumes the worst possible outcome of a situation, which is realised mainly by negative pronouns like ‘nothing’, ‘no one’ and ‘nobody’.

Example Series 4:

- (1) Morris: 我很糟糕我什么都糟糕。
我这副样子还奢求别人来喜欢我吗?
这个世界**不会有人**喜欢我的。
I am terrible; everything about me is terrible.
How can I expect someone to like me if I am like this?
No one in this world will like me.
- (2) Jane: **没有人**能救得了我。活着太难了。
现在只有一个想法，就是早死。
Nobody can save me. Life is too difficult.
Now I only have one thought, and that is to die young.
- (3) Summer: 我的开心死掉了。到头来**一场空**。
My happiness has died. It all amounts to **nothing** in the end.

Catastrophic thinking manifests as an exaggeration of one’s perceived incapacities and a sense of powerlessness towards the situation, which leads to the loathing of self and a disdain for life. In ExS 4 (1), Morris constructed an utterly negative self with a pervasive self-perception of inadequacy. He adopted a worst-case scenario mindset, anticipating that ‘no one’ would find him likeable. Again, the self-questioning and self-answering pattern support the above argument that it is a linguistic pattern in depression narratives. Similarly, Jane adopted the role of someone awaiting to be saved rather than actively engaging in life. The pronoun ‘nobody’ and the adverb ‘only’ unveiled a sense of despair and helplessness, with death seen as the sole solution. Likewise, Summer in ExS 4 (3) conveyed a desperate and powerless self by personifying the abstract noun ‘happiness’ and employing the negative pronoun ‘nothing’. All commenters in ExS 4 reached a

hasty conclusion that the conditions would not be improved and, accordingly, justified their suicidal ideations.

5. Discussion

The salient thinking patterns analysed above should be considered a clue for understanding the depressive experience: First, the self-isolating thinking embodied by the first-person perspective reveals that the participants were confined to their excessively emotional world. A paradox is observed here: the participants engaged in self-disclosure by sharing their experiences online in a manner that ostensibly invited interaction and the development of relationships. However, these disclosures ultimately led to a self-contained narrative, with the individuals remaining as the sole protagonists in their world of self-dialogue. Then, the significant absence of the pronoun ‘we’ reinforces the self-isolating thinking. The extensive and lasting connections between followers are almost non-existent in ‘Zoufan’ community, turning it into an unmanaged ODC with loose affiliation and seemingly an emotional dumping ground. The minimal emotional value then reduces the likelihood of positive outcomes brought about by such a community, causing a vicious cycle of remaining in self-talk/soliloquy while within the community.

Second, self-blaming thinking reflects strong and inherent self-denial via the split of self by the second-person singular pronoun ‘you’. The core participant stepped out of their first-person perspective, taking on a third-person perspective, questioned, blamed, criticised, and humiliated themselves using ‘you’ (which essentially pointed to ‘I’). By talking to themselves with ‘you’ in a derogatory tone, they probably imitated other social actors’ attitudes towards them, such as parents and friends, which pairs up ‘I’ and ‘me in others’ eyes (Hong, 2020; Sartre, 1993).

Third, the absolutist and catastrophic thinking suggests an intense self-hatred and a painful longing for death. The portrayal of the depressed self and the depressive experience is so overwhelmingly negative that living with depression becomes an unbearable torment, with death or suicide appearing as the only solution. The expression of hopelessness and helplessness, while potentially drawing sympathy from the audience, has also played a role in fostering a negative emotional contagion within the community. This is because the glorification of suicide has evolved into an anticipatory “affective gesture” (Papacharissi & de Fatima Oliveira, 2012, p. 277), serving as normative content that validates the authenticity of experiencing depression among community

members. The two thinking patterns, based on the core participants' assumptions, are further implicated with delusional thinking about the future and an inclination to withdraw from reality.

6. Conclusion

By exploring the usages of different pronouns and the associated salient thinking patterns, this study observed the affective cognition communicated by the depressed young people on 'Zoufan'. Pronouns are used as an entry point to explore the depressed self submerged under the texts and in the contexts. Despite the complexity of dissolving identity boundaries on the Internet, identity is still "something people search for, uncertain where and to whom they belong, and what styles of life they should adopt." (van Leeuwen, 2021, p. 3). This uncertainty is probably more substantial for depressed young people who might remain silent in reality but very vocal in cyberspace. The findings could assist individuals struggling with depression in breaking free from distorted thinking patterns, enabling them to gain a clearer understanding of their identity and capabilities while living with depression.

Also, the findings have practical significance for mental health practitioners, educators, parents, and other interested parties to gain a more nuanced recognition and understanding of depressed young people's self-projection and thinking manners via linguistic representations. Moreover, this study provides an example of bridging the small stories research paradigm with affective cognition analysis when examining identity construction within everyday narratives.

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References

- Al-Mosaiwi, M., & Johnstone, T. (2018). In an absolute state: Elevated use of absolutist words is a marker specific to anxiety, depression, and suicidal Ideation. *Clinical Psychological Science*, 6(4), 529-542. <https://doi.org/10.1177/2167702617747074>
- Baker, C. L. (1970). Double negatives. *Linguistic Inquiry*, 1, 169-186.

- Bamberg, M. (2011). Who am I? Narration and its contribution to self and identity. *Theory & Psychology*, 21(1), 3-24. <https://doi.org/10.1177/0959354309355852>
- Bamberg, M. (2012). Narrative practice and identity navigation. In J. A. Holstein & J. F. Gubrium (Eds.), *Varieties of narrative analysis* (pp. 99-124). SAGE Publications. <https://doi.org/https://dx.doi.org/10.4135/9781506335117.n6>
- Bamberg, M., & Georgakopoulou, A. (2008). Small stories as a new perspective in narrative and identity analysis. *Text & Talk*, 28(3), 377-396. <https://doi.org/https://doi.org/10.1515/TEXT.2008.018>
- Beck, A. T. (1979). *Cognitive therapy of depression*. Guilford Press.
- Benwell, B., & Stokoe, E. (2006). *Discourse and identity*. Edinburgh University Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Bullingham, L., & Vasconcelos, A. C. (2013). 'The presentation of self in the online world': Goffman and the study of online identities. *Journal of Information Science*, 39(1), 101-112. <https://doi.org/10.1177/0165551512470051>
- Choudhury, M. D., & De, S. (2014). Mental health discourse on Reddit: Self-disclosure, social support, and anonymity. *Proceedings of the 8th International Conference on Weblogs and Social Media, ICWSM 2014*, 71-80.
- Chung, C., & Pennebaker, J. (2007). The psychological functions of function words. In K. Fiedler (Ed.), *Social communication* (pp. 343-359). Psychology Press.
- data.weibo.com. (2019). *2018 Weibo yonghu fazhan baogao [Weibo user development report 2018]*. <https://data.weibo.com/report/reportDetail?id=433>
- De Fina, A. (2016). Storytelling and audience reactions in social media. *Language in Society*, 45(4), 473-498. <https://doi.org/10.1017/S0047404516000051>
- Delft Institute of Positive Design. (2022). *Negative emotion typology*. <https://emotiontypology.com/>
- Edwards, T. M., & Holtzman, N. S. (2017). A meta-analysis of correlations between depression and first person singular pronoun use. *Journal of Research in Personality*, 68, 63-68. <https://doi.org/10.1016/j.jrp.2017.02.005>
- Elliott, R., Zahn, R., Deakin, J. F., & Anderson, I. M. (2011). Affective cognition and its disruption in mood disorders. *Neuropsychopharmacology*, 36(1), 153-182. <https://doi.org/10.1038/npp.2010.77>

- Evans, V. (2012). Cognitive linguistics. *WIREs Cognitive Science*, 3(2), 129-141.
<https://doi.org/https://doi.org/10.1002/wcs.1163>
- Ferrari, A. J., Charlson, F. J., Norman, R. E., Patten, S. B., Freedman, G., Murray, C. J., Vos, T., & Whiteford, H. A. (2013). Burden of depressive disorders by country, sex, age, and year: Findings from the global burden of disease study 2010. *PLoS Medicine*, 10(11), e1001547.
<https://doi.org/10.1371/journal.pmed.1001547>
- Gao, Y.-h., & Meng, L. (2019). Analysis of suicidal tendencies in microblog discourse: The case of “Zou Fan”. *Foreign Languages and Their Teaching*(1), 43-55+145-146.
<https://doi.org/10.13458/j.cnki.flatt.004557>
- Gellatly, R., & Beck, A. T. (2016). Catastrophic thinking: A transdiagnostic process across psychiatric disorders. *Cognitive Therapy and Research*, 40(4), 441-452.
<https://doi.org/10.1007/s10608-016-9763-3>
- Georgakopoulou, A. (2016). Small stories research: A narrative paradigm for the analysis of social media. In L. Sloan & A. Quan-Haase (Eds.), *The SAGE handbook of social media research methods* (pp. 266-281). SAGE Publications.
- Giaxoglou, K., & Georgakopoulou, A. (2021). A narrative practice approach to identities: Small stories and positioning analysis in digital contexts. In M. Bamberg, C. Demuth, & M. Watzlawik (Eds.), *The Cambridge handbook of identity* (pp. 241-261). Cambridge University Press.
- Gilat, I., & Tobin, Y. (2009). “I am so sick of this life”: A semiotic analysis of suicidal messages on the Internet. In L. Sher & A. Vilens (Eds.), *Internet and suicide* (pp. 169-184). Nova Science Publishers.
- Gotlib, I. H., & Joormann, J. (2010). Cognition and depression: Current status and future directions. *Annual Review of Clinical Psychology*, 6, 285-312.
<https://doi.org/10.1146/annurev.clinpsy.121208.131305>
- Harrison, E. (2021, February 16). *Overcoming cognitive distortions: Thinking traps*
<https://tlcvirtualresiliency.com/2021/02/16/overcoming-cognitive-distortions-thinking-traps/>
- Haspelmath, M. (1997). *Indefinite pronouns*. Clarendon Press.
- Hong, C. P. (2020). *Minor feelings: An Asian American reckoning*. Oneworld Publications.

- Howes, C., Purver, M., & McCabe, R. (2014). Linguistic indicators of severity and progress in online text-based therapy for depression. Proceedings of the ACL workshop on computational linguistics and clinical psychology: From linguistic signal to clinical reality, Baltimore, Maryland USA.
- Huang, S. (2016). Contrastive analysis of subject characteristics and ellipsis in English and Chinese [Yinghan zhuyu tezheng jiqi shenglue duibi fenxi]. *Overseas English*, 6, 164-165. <https://doi.org/10.13978/j.cnki.wyyj.2019.02.022>
- Jonason, P. K., Oshio, A., Shimotsukasa, T., Mieda, T., Csathó, Á., & Sitnikova, M. (2018). Seeing the world in black or white: The Dark Triad traits and dichotomous thinking. *Personality and Individual Differences*, 120, 102-106. <https://doi.org/10.1016/j.paid.2017.08.030>
- Kupferberg, I., & Gilat, I. (2012). The discursive self-construction of suicidal help seekers in computer-mediated discourse. *Communication and Medicine*, 9(1), 23-35. <https://doi.org/https://doi.org/10.1558/cam.v9i1.23>
- LeMoult, J., & Gotlib, I. H. (2019). Depression: A cognitive perspective. *Clinical Psychology Review*, 69, 51-66. <https://doi.org/https://doi.org/10.1016/j.cpr.2018.06.008>
- Li, G., Zhou, X., Lu, T., Yang, J., & Gu, N. (2016, 27 February-2 March). *SunForum: Understanding depression in a Chinese online community*. Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing, California, USA. <https://doi.org/10.1145/2818048.2819994>
- Meng, L., & Sun, M. (2019). Pingjia lilun shijiaoxia wangyou dui zisha de taidu —— “Zoufan” Weibo wangyou fankui kaocha [Online users’ attitude towards suicide from the perspective of appraisal theory: Feedback from Weibo users of ‘Zoufan’]. *Foreign Languages Research*, 36(2), 7-11 + 22. <https://doi.org/10.13978/j.cnki.wyyj.2019.02.022>
- Mirzaei, T., & Esmaeilzadeh, P. (2021). Engagement in online health communities: Channel expansion and social exchanges. *Information & Management*, 58(1), 103404. <https://doi.org/https://doi.org/10.1016/j.im.2020.103404>
- Page, R. (2018). *Narratives online: Shared stories in social media*. Cambridge University Press.
- Papacharissi, Z., & de Fatima Oliveira, M. (2012). Affective news and networked publics: The rhythms of news storytelling on #Egypt. *Journal of Communication*, 62(2), 266-282. <https://doi.org/10.1111/j.1460-2466.2012.01630.x>
- Pennebaker, J. W. (1982). *The psychology of physical symptoms*. Springer-Verlag Publishing.

- Pennebaker, J. W., & Chung, C. K. (2014). Counting little words in big data: The psychology of individuals, communities, culture, and history. In J. P. Forgas, O. Vincze, & J. László (Eds.), *Social cognition and communication* (pp. 25-42). Psychology Press.
- Poster, M. (2001). *What's the matter with the Internet?* (1st ed.). University of Minnesota Press.
- Prescott, J., Rathbone, A. L., & Hanley, T. (2020). Online mental health communities, self-efficacy and transition to further support. *Mental Health Review Journal*, 25(4), 329-344. <https://doi.org/10.1108/MHRJ-12-2019-0048>
- Raes, F., Griffith, J. W., Craeynest, M., Williams, J. M. G., Hermans, D., Barry, T. J., Takano, K., & Hallford, D. J. (2023). Overgeneralization as a predictor of the course of depression over time: The role of negative overgeneralization to the self, negative overgeneralization across situations, and overgeneral autobiographical memory. *Cognitive Therapy and Research*, 47(4), 598-613. <https://doi.org/10.1007/s10608-023-10385-6>
- Ren, X., Burkhardt, H. A., Areán, P. A., Hull, T. D., & Cohen, T. (2024). Deep representations of first-person pronouns for prediction of depression symptom severity. *AMIA Annual Symposium Proceedings, 2023*, 1226-1235.
- Riessman, C. K. (2008). *Narrative methods for the human sciences*. SAGE Publications.
- Rosenbach, C., & Renneberg, B. (2015). Remembering rejection: Specificity and linguistic styles of autobiographical memories in borderline personality disorder and depression. *Journal of Behavior Therapy and Experimental Psychiatry*, 46, 85-92. <https://doi.org/10.1016/j.jbtep.2014.09.002>
- Rude, S., Gortner, E.-M., & Pennebaker, J. (2004). Language use of depressed and depression-vulnerable college students. *Cognition and Emotion*, 18(8), 1121-1133. <https://doi.org/10.1080/02699930441000030>
- Sartre, J.-P. (1993). *Being and nothingness: An essay in phenomenological ontology*. Simon & Schuster.
- Scollon, R. (2001). *Mediated discourse: The nexus of practice* (1st ed.). Routledge.
- Settanni, M., & Marengo, D. (2015). Sharing feelings online: Studying emotional well-being via automated text analysis of Facebook posts. *Frontiers in Psychology*, 6, 1045. <https://doi.org/10.3389/fpsyg.2015.01045>
- Tang, J., Yao, X., & Yu, G. (2021). Exploring the online behavior of users of online depression-focused communities: Comparing communities with different management types.

- Psychology Research and Behavior Management*, 14, 1707-1724.
<https://doi.org/10.2147/prbm.S323027>
- Tang, J., Yu, G., & Yao, X. (2020). A comparative study of online depression communities in China. *International Journal of Environmental Research and Public Health*, 17(14), 5023.
<https://doi.org/10.3390/ijerph17145023>
- Tausczik, Y. R., & Pennebaker, J. W. (2010). The psychological meaning of words: LIWC and computerized text analysis methods. *Journal of Language and Social Psychology*, 29(1), 24-54. <https://doi.org/10.1177/0261927X09351676>
- Trifu, R., Nemes, B., Bodea-Hațegan, C., & Cozman, D. (2017). Linguistic indicators of language in major depressive disorder (MDD). An evidence based research. *Journal of Evidence-Based Psychotherapies*, 17(1), 105-128. <https://doi.org/10.24193/jebp.2017.1.7>
- Turkle, S. (2015). *Reclaiming conversation: The power of talk in a digital age*. Penguin Press.
- van Leeuwen, T. (2021). *Multimodality and identity*. Taylor & Francis.
- Williams, J. M. G. (2001). *Suicide and attempted suicide: Understanding the cry of pain* (2nd ed.). Penguin.
- World Health Organization. (2023, 31 March). *Depressive disorder (depression)*. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>
- Yang, F., Huang, Z., Yang, B., Ruan, J., Nie, W., & Fang, S. (2019). Analysis of suicidal ideation patterns of Weibo “Tree Hole” users based on artificial intelligence technology. *Journal of Nursing Science*, 34(24), 42-45.
- Zhang, R., Eschler, J., & Reddy, M. (2018). Online support groups for depression in China: Culturally shaped interactions and motivations. *Computer Supported Cooperative Work*, 27(3), 327-354. <https://doi.org/10.1007/s10606-018-9322-4>
- Zimmermann, J., Brockmeyer, T., Hunn, M., Schauenburg, H., & Wolf, M. (2017). First-person pronoun use in spoken language as a predictor of future depressive symptoms: Preliminary evidence from a clinical sample of depressed patients. *Clinical Psychology & Psychotherapy*, 24(2), 384-391. <https://doi.org/10.1002/cpp.2006>