

# Effects of Depression on Language Use

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## Abstract

This paper has covered two questions. First is 'what is depression?'. A general view of depression is given in this paper. Symptoms of depression are discussed. Depression assessment tools are described. In this paper I want to focus depression effects on language use. Second question covered in this paper are 'how does depression affect in language use?' Lexical decision task in depression suggested higher percentage of recall negative words in depression. In this paper some papers are reviewed to explain the language use in depression. One conclusion can be drawn from this review that more uses of negative words and first person word are seen in depressed individual's language use. 'I am nothing', 'I am failed', 'I am worthless' these types of use of sentences are more common to depressed people. There is an increased use of first person singular pronouns among depressed people. Depression is a debilitating condition that cripples all aspects of daily life functioning in people. It affects the behaviour by increasing a bias toward processing negative stimuli. It also affects the brain by altering the neuronal networks of the ventromedial, dorsolateral, amygdala connectivity along with front striatal connectivity. As a result its effect on language use is significant. Analysis of linguistic content may provide a new dimension in understanding the disorder and changes induced by the disorder.

*Keywords:* Amygdala-where emotions are given meaning, Lexicon-language's inventory of lexemes.

Depression is a debilitating affective disorder in all communities of the world. The world mental health survey conducted in 17 countries found that on an average about 1 in 20 people reported having an episode of depression. The depressive disorder may affect at a very young age. According to WHO (2008), risk of depression is 50% higher for females than males. Depressed individuals tend to feel helpless and hopeless and blame themselves for having such feelings. Daily life activity such as day to day working and concentrating on task, sensitivity to taking interest and pleasure, from the daily events such as sleeping and eating may be disrupted with the onset of depression. People afflicted with depression present many somatic symptoms like, chronic pain, headaches, feeling restless for a long time, irritability and anger.

Depression may also be present with anxiety. Depressed individuals may become overwhelmed and exhausted. Depressed individuals prefer staying far away from their family and friends. Some depressed people may also think about suicide. Depression sometimes may co-occur with other medical illness such as cancer, diabetes, heart disease. Many factors may

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play clinical role in developing depression, including genetics, brain biology and chemistry, trauma, loss of loved one, difficult relation, early childhood experience or stressful situation. Thus, depression is often a signal that certain mental, emotional and physical aspects of a person's life are out of balance. Results show that suicidal poets used more first-person singular words (I, Me, My), and fewer words pertaining to the social collective (We, Us, Our) and in this study, groups did not differ in their use of negative or positive emotion words

### **Symptoms of Depression**

If someone experiences any of the following signs and symptoms for at least past two weeks, he/she may be suffering from depression. This signs and symptoms are–

1. Persistent sadness, anxiety
2. Feeling of hopelessness
3. Loss of interest or pleasure
4. Decreased energy
5. Feelings of guilt or low self-worth
6. Disturbed sleep or appetite
7. Poor concentration
8. Insomnia or oversleep
9. Appetite or overeating or weight loss or weight gain
10. Restless and irritability

Depression can lead to suicide. These core symptoms of depression are described from 'the diagnostic and statistical manual of mental disorders (DSM-V, American psychiatric Association, 1994).

### **Assessment Tools**

A lot of assessment tools for depression have been developed and used. Such as-i) Hamilton Depression Rating Scale(HRDS)

- Beck Depression Inventory (BDI)
- Patient Health Questionnaire (PHQ)
- Major Inventory Depression (MID)

- Center for Epidemiologic Studies Depression(CES-D)
- Zung Self-Rating Depression Scale (SDS)
- Geriatric Depression Scale (GDS)
- Cornell Scale for Depression in Dementia (CSDD)

### **Existing study on language deficiency in depressed mood**

Language is not only a social and emotional communicative tool, but also powerful indicator of personality, social and emotional status and also our mental state. Previous studies indicate that, the words which people use in speech are indication of their psychological state. Written text materials of individuals with depression have also been analysed. The content of the written text varies from poems written by depressed poets who committed suicide to texting samples collected from social media such as reddif.com (Stirman & Pennebaker,2001).

According to Beck cognitive theory, depressed people think differently than non-depressed. These differences in thinking causes them to become more depressed. According to Aaron Beck (1967), negative thoughts, dysfunctional beliefs are primary cause of depressive symptoms. ‘This dysfunctional belief theme are called schema.This schema is determining the biases in information processing and ultimately shapes the interpretations of experience and expectations’ (Beck). The content of schema is such as, “I am nothing”, “I am failed”, “I am worthless” etc. Three main dysfunctional belief or schemas are described by Aron Beck’s negative cognitive triad. These three schemas are 1. ‘I am defective’, 2. ‘All my experiences results in failures’, 3. The future is hopeless. This triad also describes the negative view of past experiences, the future and the self. According to Aron Beck individuals are prone to depression schemas that lead depressive individuals see themselves and the world in negative terms. It is also well established that depressed individuals have relatively higher negative perspectives (Hamilton and Abramson, 1983, Holton, Kendell and Lumry, 1986, krantz and Rude, 1984). The depressive schemas might be latent. When other stressful events trigger the activation of depressive schemas, this depressive episodes may occur.

Depressed individuals tend to be self-critical, have negative expectation. And have a negative view of past experiences. When a depressed individual is interpreting experiences, he/she tends to focus on the negative aspect and ignore the positive one. According to Beck when schema is activated, they cause events to be perceived and then interpreted in a negative light. An

associative network model of mood and memory states that emotional states are represented as nodes in semantic network (Anerson,1976). A node is a unit in memory and it is made up of a group of concepts. Every node is linked with related nodes that mean positive nodes are linked positive memory and negative nodes are linked with negative memory. When an emotion is experienced, it lowers the threshold of excitation of related nodes, such that the nodes represent descriptions of event that occurred when emotion was experienced and other related themes and words.

Schema theory provides view about how depressed individuals see the world and associative network theory provides a detail of how biased processing takes place in negative light. Ingram (1984) has also explained the depression on his “loss-associative cognitive” theory. He stated that, experience of loss in childhood link memories of these losses with feelings of depression. These linkages are a permanent part of the network and also cause of similar situations to elicit similar feelings. Events, memories and beliefs surrounding the depressive episodes are part of the network. Depressed individuals are not capable of stopping this automatic process voluntarily. The linkages in the loss-associated network are stronger in depressed individuals than normal.

This view is also supported by Emil durkheim’s (1951) social integration or disengagement model of suicide. This model states that the perception of oneself as not integrated into society as detached from social life is the key to suicidality. So, it is also relevant to depressed persons’ self-perception. Pyszczynsky and Greenberg Posit that self-focus plays a causal role in bringing about depression. It may be that self-focus constitutes a dispositional vulnerability to depression, the tendency to engage in self-focus has not been examined in depression prone individuals. Alternatively individuals who have a tendency to interpret events and situations in terms of themselves may be more likely to become depressed.

Some studies have shown that, there is an increased use of first person singular pronouns among depressed people. Stirman and Peanbaker (2001) have provided evidence which are consistent with self-focus and social integration perspectives. This study compared 300 poems from those who have later committed suicide and some of those who did not. Results show that suicidal poets used more first-person singular words (I, Me, My), and fewer words pertaining to the social collective (We, Us, Our) and in this study, groups did not differ in their use of negative or positive emotion words. In this study, they examined word usage in suicidal as compared to non-suicidal poets. This study is not concerned about depression measurement; their study

results are inferred that the suicidal poets were more depressed than non-suicidal poets. In another study by Clark and Teasdale (1985), a list of positive and negative trait words and positive and negative abstract nouns were given to non-depressed participants. Then the same were introduced to elated or depressed mood through musical mood induction. They show only the female participants had better recall of negative adjectives if the participants were in a depressed mood rather than elated mood and positive trait words were recalled better if the participants were in elated mood rather than depressed mood. They also showed their second study result, where the words were related for how often each participant would use each of the trait words when thinking or talking about the person's behaviour. The women rated many of the words as having higher usage than the men did.

Another study, examined linguistic patterns of depressed and depressed prone persons (Rude, Gortner, Pennebaker, 2004). In this study, they examined the language use of depressed, formerly-depressed and never depressed college students for clues about the cognitive processes and pre-occupations associated with depression and vulnerability to depression. In this study, some essay tasks in the context are given to the participants. Essay instruction was such as, "write about your deepest thoughts and feelings about coming to college". They want to show that whether patterns similar to the ones observed for depressed individuals might emerge toward the end of essays. Depressive individuals have a greater tendency to self-focus. They showed that, formerly depressed students showed significantly greater use of "I" (first person singular number) compared to the use of never depressed students only during the later of the essays. This use of "I" is characterized by apparent conflict about expression of negative emotions, as well as with a focus on self-evaluation. This study suggested that depressed individuals are pre-occupied with negative thoughts and also with heightened self-awareness. This also provides support for the inhibition of thoughts and emotions, as displayed in the language of formerly-depressed individuals plays a role in continuing vulnerability to depression.

Depression is characterized by decreased activity in ventromedial and dorsolateral prefrontal cortices (Beavers et al., 2011; Fales et al., 2008). These regions of the brain are also associated with modulation of attentional resources and general executive functioning. When viewing emotional stimuli or describing an emotional situation, these areas have been shown to be under activated. Also dorsolateral prefrontal cortex (dlPFC) also inhibits amygdala indirectly (Disner et al., 2011), an area involved in emotional processing of the threat related stimuli. Number of

grey matter episodes is also associated with the decrease in grey matter density in dlPFC (Frodl et al., 2008) and depressed individuals show more intense and longer lasting activation of amygdala than healthy controls (Siege et al., 2002). This aspect persists even after clinical remission of depression in patients (Neumeister et al., 2006).

In conclusion the research on depression and language use suggest that increased attention to and processing of negative stimuli, enhances amygdala activity and decreased PFC activity may effect word use, word selection and linguistic framing during communication with others.

## References

- Beck, A. . (1967). New york: Harper & Row. Depression: Clinical Experimental and Theoretical Aspects.
- Bernard, J. D., Baddeley, J. L., Rodriguez, B. F., & Burke, P. A. (2015). Depression, Language, and Affect: An Examination of the Influence of Baseline Depression and Affect Induction on Language. *Journal of Language and Social Psychology*, 35(3), 1–10. <https://doi.org/10.1177/0261927X15589186>
- Diagnostic and statistical manual of mental disorders. (2016). American Psychiatric Association, 16–168.
- Durkheim, E. (1951). New York Press. Suicide.
- 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>
- Hemmen, C. (1980). Depression in college students: Beyond the Beck Depression Inventory. *Journal of Consulting and Clinical Psychology*, 48, 126–128.
- Hersen, Michel, Rosqvist, J. (n.d.). A handbook of psychological assessment case conceptualization and treatment, 1.
- Kessler, R.C., & Walters, E. . (1998). Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the national comorbidity survey. *Depression and Anxiety*, 3–14.
- Kessler, Re, B. (2013). The epidemiology of depression across cultures. *Annual Review of Public Health*.

- Richtfort, E. A. (2008). The Effect of Depression on a Lexical Decision Task, (1995).
- Rude, s.s., & McCarthy, C. T. (2003). Emotional functioning in depressed and depression-vulnerable college students. *Cognitive Therapy and Research*, 17, 799–806.
- Rude, S.S., Covich, J., Jarold, W., Hedlund, S., & Zenter, M. (2001). Detecting depressive schemata in vulnerable individuals: questionnaires versus laboratory tasks. *Cognitive Therapy and Research*, 12, 103–116.
- Schwartz, H. A., Eichstaedt, J., Kern, M. L., Park, G., Sap, M., Stillwell, D., ... Ungar, L. (2014). Towards Assessing Changes in Degree of Depression through Facebook. *Proceedings of the Workshop on Computational Linguistics and Clinical Psychology: From Linguistic Signal to Clinical Reality*, 118–125. Retrieved from <http://www.aclweb.org/anthology/W/W14/W14-3214>
- Sciencedirect, S. (2017a). Recommended articles Language Deficits in Dyslexic Children/ : Speech Per ... Citing articles ( 56 ), 3–5.
- Segrin, C. (1998). Interpersonal communication problems associated with depression and loneliness. *The Handbook of Communication and Emotion*, 215–242.
- Stephanie S. Rude, Eva-Maria Gortner, & J. W. P. (2004). Language use of depressed and depression-vulnerable college students. *University of Texas at Austin*, 18, 1121–1133.
- Stip, E., Lecours, A. R., Chertkow, H., Elie, R., & O'Connor, K. (1994). Influence of affective words on lexical decision task in major depression. *Journal of Psychiatry & Neuroscience/ : JPN*, 19(3), 202–207.
- Stirman, S. W., & Pennebaker, J. W. (2001). Word use in poetry of suicidal and non-suicidal poets. *Psychosomatic Medicine*, 63, 517–522.
- American Psychological Association. (2010). Understanding Depression and Effective Treatment, 1–2. <https://doi.org/10.1037/e519092012-001>
- Bouffard, R. (1984). Digital Commons @ Becker The clinical evaluation of language functions ( CELF ): its applicability for hearing-impaired children.
- Deldin, P., Keller, J., Casas, B. R., Best, J., Gergen, J., & Miller, G. A. (2006). Normal N400 in mood disorders. *Biological Psychology*, 71(1), 74–79. <https://doi.org/10.1016/j.biopsycho.2005.02.005>

- Diagnostic and statistical manual of mental disorders. (2016). American Psychiatric Association, 16–168.
- Klumpp, H., Keller, J., Miller, G. A., Casas, B. R., Best, J. L., & Deldin, P. J. (2010). Semantic processing of emotional words in depression and schizophrenia. *International Journal of Psychophysiology*, 75(2), 211–215. <https://doi.org/10.1016/j.ijpsycho.2009.12.004>
- Richtfort, E. A. (2008). The Effect of Depression on a Lexical Decision Task, (1995).
- Stip, E., Lecours, A. R., Chertkow, H., Elie, R., & O'Connor, K. (1994). Influence of affective words on lexical decision task in major depression. *Journal of Psychiatry & Neuroscience/ : JPN*, 19(3), 202–207.
- Weekly, C. I. O. (2010). What you need to know. *Automotive Design & Production*, 122(March), 24–25.