

How do Neurodivergent People Engage with Tone in Digital Spaces?

A Study on the Written Expression of Tone and Intent

by

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PREVIEW

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## ABSTRACT

The purpose of this thesis is to identify the ways neurodivergent people engage with tone and intent, in spaces where the expression of such things is missing the audible and visual cues that exist in face-to-face communications. Interviews were conducted with four participants who self-identify as neurodivergent, with each of the interviews seeking to understand their experiences with the written expression of tone and intent. The interviews shed light on how direct, semi-direct, and indirect tone indicators are used as tools for understanding the intent and tone of a message, as well as which of the three types of tone indicators are the most helpful in practice. The interviews also touched on how social interactions in digital spaces are often viewed through a neurotypical lens, and thus make understanding the sociolinguistic rules of digitally-based interactions difficult for neurodivergent individuals who are expected to know said rules without being told. Through the course of the interviews, participants expressed a desire for people as whole to be clearer about their tone and intent when communicating in digital spaces, and that tone indicators are vital for communicating such things.

DEDICATION

To my grandfather, Dr. Dan Baxley.

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## CHAPTER 1

### INTRODUCTION

The everchanging nature of the Internet has a direct connection to the development and use of language in the spaces that exist within it. Social and linguistic rules rapidly become mainstream and fall out of public favor, seemingly without reason. The exacerbation of the evolution of language, although fascinating, has potentially left neurodivergent individuals scrambling for a means to adjust to the linguistic drawbacks of purely online interactions. The development of new means of indicating tone and intent, though largely subconscious to neurotypical people, may serve as an olive branch of accessibility for those who struggle with interpreting such things. By exploring how neurodivergent people engage with tone in digital spaces, the general public can be given insight into where struggles exist and how misunderstandings can be rectified and potentially avoided altogether.

This study serves to explore that gap in research, and ultimately offer insight into where headway can be made towards greater accessibility in digital spaces for neurodivergent people. This study will examine the lived experiences of neurodivergent individuals who engage socially online, and seek to reach conclusions on where difficulties exist in tone interpretation and what tools already exist that neurodivergent people use to help them navigate the social scripts of digital interactions. This study centers English speaking communities and takes an interactional approach by considering both the speaker/sender and the receiver in digital communications. Given the lack of research on this area of study, this thesis aims to encourage future research on the neurodivergent experience with language in digital spaces, with an emphasis on the

existence and use of tone indicators, so as to move towards greater accessibility of language on the Internet.

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## CHAPTER 2

### LITERATURE REVIEW

In recent years, the term “neurodivergent” has become a popular general term for any individual who generally falls under the classifications of having a neurodevelopmental disorder, as defined by the American Psychiatric Association (APA) in the Diagnostic and Statistical Manual of Mental Disorders: DSM-5-TR (DSM-5-TR). As stated by the APA (2022), neurodevelopmental disorders are “characterized by developmental deficits or differences in brain processes that produce impairments of personal, social, academic, or occupational functioning,” which allows “neurodivergent” to serve as a coverall term for those who meet the aforementioned characteristics in popular usage, despite the word itself not appearing in the DSM-5-TR. Examples of disorders that meet said criteria include autism spectrum disorder (ASD), attention-deficit/hyperactivity disorder (ADHD), and obsessive-compulsive disorder (OCD), amongst many others (American Psychiatric Association, 2022). While clinical criteria have been the standard for indicating inclusion under the blanket of neurodivergence, Stenning and Rosqvist (2021) note that neurodivergence, and its generalized use, is subject to much fluctuation in its agreed upon definition, and it seems to warp to fit the needs of society at large (p. 1532). As a result of this, it can be assumed that instead of basing neurodivergence solely on the clinical criteria laid out for (for example) autism, we can “leave the possibility open that there are other forms of difference that have yet to be defined” (Stenning & Rosqvist, 2021, p. 1532).

Additionally, given that the disorders/conditions that fall under the term “neurodivergent” are “spectrum conditions which have a range of associated

characteristics,” there are “varying degrees and combinations in neurodivergent individuals (and in the general population). Hence, the characteristics displayed by a person with one or more neurological condition will not necessarily match another person with the same condition(s)” (Bewley & George, 2016, p. 4). Furthermore, disorders that fall under the neurodivergent label can and often are misdiagnosed as a result of the comorbidities that exist between the various neurodevelopmental spectrum disorders (Takara et al., 2015, p. 82). With the understanding that neurodevelopmental disorders often occur in conjunction with other neurodevelopmental disorders as well as other psychiatric and behavioral disorders, the term “neurodivergent” serves as a fluid means of indicating general diagnosis or connection to the spectrum of neurodevelopmental disorders and their social implications (APA, 2022).

As a result, the use of the term neurodivergent helps to create a community for individuals with similar spectrum disorders without the need to constantly specify the nature of one’s disorders/conditions, sometimes without need of a formal diagnosis. For many individuals who self-identify as neurodivergent, the identity allows for inclusion in a community without need of a formal diagnosis, largely due to the complications that many face in seeking a formal diagnosis, as well as the stigma that often follows a diagnosis. To exemplify the struggles that people encounter when seeking a formal diagnosis, the way ASD is diagnosed will be examined; each disorder that falls under the neurodivergent label is different and a spectrum, so different struggles follow each disorder. ASD just serves as an excellent example for how all-encompassing these struggles can be. One of the major issues in attempting to obtain a formal diagnosis of ASD as a whole, is that entire demographics (such as women, people with atypical

symptoms, people with similar disorders, etc.) can be missed in preliminary testing, which means that adults who go undiagnosed in childhood may struggle to obtain a diagnosis. This largely stems from the “difficulty in obtaining accurate developmental history, insufficient experiences of detecting ASD among clinicians, and mild/atypical autistic traits in contrast to prominent psychiatric comorbidities,” meaning that the spectrum nature of ASD and the commonalities between ASD and other neurodevelopmental and psychiatric conditions decrease the likelihood of obtaining a diagnosis (Takara et al., 2015, p. 82). Furthermore, throughout history, the diagnostic standard for ASD has relied on the established measures used to diagnose ASD in predominantly male samples, largely overshadowing female samples and thus basing diagnosis on the symptoms that present in said male samples (Bargiela et al., 2016, p. 3282). Due to the aforementioned, “Compared to males, females are at substantially elevated risk of their [Autism Spectrum Condition (ASC)] going undiagnosed: their difficulties are frequently mislabelled or missed entirely” (Bargiela et al., 2016, p. 3281). Given the difficulties that surround obtaining formal diagnoses, many individuals who experience/relate to the known symptoms of neurodevelopmental disorders will choose to self-identify as neurodivergent, as the process of formally receiving that label can be largely inaccessible to many.

In conjunction with the inaccessibility of formal diagnosis, there still exists much negative stigma surrounding the use and label of formal diagnoses, which may impact willingness to seek a formal diagnosis. Bewley and George (2016) note that official diagnoses are not always necessary, especially in regards to awareness and support in the work place, and such diagnoses may cause more harm than good to the individual (pp. 7-

8). Johnson and Joshi (2016) further this point by noting that a neurodivergent person's decision to disclose their diagnosis "may also open up possibilities for more detrimental consequences," and that part of managing their neurodivergent identity means taking into account "potential to encounter stereotypes, discrimination, and other reactions to stigmatizing information" (p. 435). Furthermore, some neurodivergent individuals with formal diagnoses make a pointed effort to hide their diagnoses as a direct result of the negative stereotypes about their diagnosed neurodivergence. The constant knowledge of a confirmed diagnosis, and the following social vigilance in regards to that diagnosis, certainly causes individuals who identify as neurodivergent to avoid seeking a diagnosis as a means to avoid the social stereotypes and stigma that surround such a diagnosis. For this reason, this research will use participants who self-identify as neurodivergent, meaning that a formal diagnosis is not a participation requirement.

As a whole, neurodivergent individuals generally face certain barriers to social engagements as a result of the nature of their disorders. This includes "impairments of personal, social, academic, or occupational functioning," which means that at the conversational level, many neurodivergent individuals struggle with reading social cues such as audible expressions of intonation and physical expressions of emotion (and what those expressions mean in terms of the intent of the person with whom they are communicating) (APA, 2022). Castelli (2005) notes that, in the example of ASD, even individuals with no outward impairments in reading expressions of emotions in conversation likely still "have difficulties in linking the perceptual level of emotion recognition with the higher level of understanding the social meaning of different expressions" (p. 445). This means that autistic individuals who can mask the symptoms