**How Emoji Usage is Affected by and Changes with Age**

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# Introduction

Released to the public at the end of 2008, emoji, or emoticons, have been a staple of conversations on mobile phones. Emoji initially was released on the iPhone and since their release, there have been many expansions upon the initial batch of emoji. Emoji differ from emoticons because emoji are not tied to the confines of the symbols, numbers, and letters on a keyboard, whereas emoticons can be created through the use of different combinations of the keys on a keyboard that can then be transformed on the device to be perceived in a cartoon format (Grannan, n.d.). Emoji are more commonly used than emoticons because emoji can encompass emoticons since they are both cartoon representations that do not have to be tied to symbols, numbers, or letters on a keyboard. Therefore, this paper will primarily focus on emoji rather than emoticons. Presently there are 3,136 emoji that are available for consumers to use, which is a result of 13 updates with each one building upon the one before (Buchholz, 2020). With the wide variety of options of emoji to use in everyday conversation, emoji use has a way of reflecting the individual that utilizes them. The use of different emoji differs across a wide variety of demographics. Emoji also have their associated meanings depending on the context they are used in and the speaker and interlocutor. Emoji have a way of creating a divide between demographics, providing hidden meanings, and processing and interpreting themselves. As a result of this, I would like to propose a study that would focus on how emoji are used in different demographics and if emoji usage develops as one goes through life and enters different stages of their life.

# Section 1: Demographic Use

Demographics can alter the prevalence of certain emoji within conversations of a community. Conversations about differing emoji usage are most common between different age groups. As people use emoji more they become more “savvy” and knowledgeable in the connotations of certain emoji, but back when emoji was first released there were many instances of middle-aged family members utilizing emoji in ways that did not line up with how the younger generations use and understand them. The name of the emoji as Unicode Consortium intended it to be is not always how it is interpreted. For example, the emoji of a woman with her palm facing up that is close to her ear,💁‍♀️, was intended to be an information desk woman giving information but it is used as a sign of sassiness. This is because of their practical use and societal understanding is typically dictated by younger generations, such as teens or college students. Since they have grown up with technology and will have a mutual understanding of what the emoji mean between those in their age group, they will teach their parents and grandparents what they interpret the emoji as. Therefore, slowly the older age groups will be able to understand but their initial interpretations of the emoji are different than their most common interpretations. That being said, emoji also have a way of reflecting the individual that uses them. “For example, participants who reported using more emoji also reported more positive attitudes and identified more with the motives for using them” (Prada et al., 2018, 1930). The correlation between positivity and increased emoji use draws a distinct line that shows that there are differences in emoji based on the individuals who use them. Emoji have the power to convey emotions through text in a more succinct format rather than having to go on lengthy discussions on the emotional context the sender wanted to lace their message with. As emoji have become more commonplace in our society there has been an understanding of overall emoji use. This is because, “[the] symbolism of emoji is socially acculturated, and therefore the meaning of emoji is widely understood and interpreted on a global scale” (Brasher, 2017). Due to exposure to emoji, there has been an overall understanding of what most emoji mean. A frowny face is understood to show sadness towards a situation, a message, or reflecting the sender’s overall emotional disposition. Overall there are broad understandings of what a particular emoji was intended to represent. These understandings are most common with facial emoji.

# Section 2: Hidden Meaning of Emoji

However, an emoji’s meaning is not always as straightforward as some interpret it as. There are subtle nuances between a smiley face with open eyes and a big grin (😃) in comparison to the big grinned smiley face with the closed eyes (😄). There is more room for interpretation with non-facial emoji. This is because the meaning behind some emoji is not always what one would think of right away. This often leads to misunderstandings, miscommunications, and misinterpretations. This is often a result of differing ages and a difference in emoji connotation knowledge. One of the most prominent examples is the use of emoji in adult relationship contexts. “The other day I ended a mildly threatening text to my husband with a devil emoji to show I meant business… It turned out I’d just told her father that I was feeling horny. (I so wasn’t)” (Halliwell, 2015, 1-2). For certain emoji, situations like the one Halliwell found herself in with her 16-year-old and 20-year-old daughters. The confusion lies in the literal versus symbolic understandings of emoji. Oftentimes emoji can be understood and taken at face value. However, over the years the younger demographics have taken emoji and given them symbolic understandings that pertain to relationships. Instances and interactions such as these are fairly common and are not few nor far between. Especially when emoji were just released to the public there were many magazine articles written in an effort to “expose” the younger generation and to educate their parents or grandparents of the potential hidden meanings in the text messages they were sending.

In an attempt to create a mass understanding and a standardized definition for emoji, there have been many “emoji translators” that have been created. The function of these is to create a mass understanding of a single or a combination of emoji. However, in practice, these translator applications result in the same situation that occurs between generations. For the same emoji that Halliwell “used inappropriately” according to her daughter, 😈, the translator application Google Translate defines it as “smile with horns”. There is a disconnect between the Unicode Consortium programmed definition and the societal contextual definition and use. The seemingly only way to mitigate this disparity is for there to be more exposure to and less stigmatization from the older age groups that use those emoji in ways outside of their societal usage. Since these emoji are often used in relation to or in the context of romantic or sexual conversations there is stigmatization towards them which prohibits their societal usage to spread to other age groups, furthering the prevalence of misunderstandings and miscommunications.

These misunderstandings could also stem from the structure of how emoji are used themselves. “Emoji do not have the grammar or vocabulary to substitute for written language. In social media, emoji make up for the lack of gestures, facial expressions, and intonation that are found in speech. They also add useful ambiguity to messages, allowing the writer to convey many different possible concepts at the same time.” (Davis & Edberg, 2020). Since there is no formal grammar that Unicode established it vastly affects how emoji are used, interpreted, or confused. Since emoji are simply pictures used in conversation and the Unicode Consortium never specified the syntactic regulations to emoji could lead to ambiguity in messages. This ambiguity could lead to the confusion we see with certain emoji. It could also be through a combination of structural ambiguity and societal connotation to emoji that results in their incongruent uses.

# Section 3: Processing Emoji

Aside from the different meanings and interpretations that emoji have, emoji can also express different emotions. This is dependent on their context and the relationship between interlocutors. The emotional context of the emoji’s use and the conversation could change the meaning of the emoji itself. This is all dependent on if the receiver can accurately interpret and process the emoji. “...experiments revealed that irony delivered by emoji elicits the same brain response as irony delivered by words…” (Weissman & Tanner, 2018, 20). This shows that normally irony is not lost through text conversations and that tone is still able to be processed by the receiver. Since irony is not lost through text conversation it is then appropriate to assume that emoji and their occasional ironic use enables the tone to be conveyed to the interlocutor. Given that the study was studying the responses of the brain it helps affirm that emotion is conveyed through emoji and not through the textual context. In a study that focused on the use of emoji concerning food tweets, “[results] confirmed that consumers spontaneously express food-related emotions in their daily life. Emoticons and emoji were more frequently used than words for this purpose” (Vidal et al., 2016, 126). In relation to food, emoji are able to convey the emotion and intention of the message better than words can. Since food typically elicits extreme emotions, either positive due to the great taste or negative due to disappointing or inedible flavors, emoji provide a perfect method of conveying the intended emoji. Twitter has a maximum character limit on all of their tweets, emoji have the ability to convey a thousand words in its singular character picture depiction. Moreover, due to the informality of Twitter as a social media platform for most people emoji are encouraged to ensure that the tweet can stay within the confines of the tweet parameters.

The formality of the situation could also dictate the usage of emoji in an individual. In an exploratory study that asked participants to translate the novel, Moby Dick, into emoji and then had other participants vote on the best translation. They found that in their pilot study they found that, “[the] overarching direction of this work are to characterize broader temporal trends about how people use emoji, how a community of users settles on specific interpretations of emoji…” (Radford et al., 2016). Even though it was just a pilot study it was still able to find a trend in the data that showed that there were trends in how people used emoji. Given that the participants were given the same source material to “translate” into emoji there was not too much room for creativity, but it can show the trends in emoji understanding. If the same combination of emoji were used to convey a single idea across multiple different participants it shows that there is a shared understanding of those emoji and their uses among the community of study. This would be applicable outside of the study to everyday communities and their emoji usage. Within age demographics and regions, emoji use tends to be similar within that in-group because there was an understanding of what the emoji meant without an explicit conversation.

# Section 4: Proposed Study

If I were to pursue this topic I would do a longitudinal study that followed participants from different age groups. The division of age for participants would be 12-14, 15-18, 19-24, 25-30, 31-40, and 41-50. The reason for these age groups is that normally children begin to get cell phones anywhere between 10 and 12 years of age and the typical age to end middle school, or junior high would be 14 years old. Most students are 15 years old when they are in high school and they graduate when they are 18 years old. The age range of 19-24-year-olds encompasses undergraduate and graduate student participants. 25-30-year-olds are those who have begun their career, but they cannot always identify with their coworkers due to differences in lifestyles and places in life. The distinction between the 31-40 and 41-50-year-olds is that 31-40-year-olds will have more in common with the 25-30. Meanwhile, the 41-50 group have spent considerable time in the workforce and have become well versed with professional business-appropriate forms of communication which could interfere with the informal nature of emoji usage. Initially, to see if the study is worth implementing on a larger scale, there would be an equal number of participants from each age range that are all native English speakers taken from roughly the same area of the United States. This would be to eliminate any regional dialect differences to ensure that any differences noticed would be attributed to the age differences, not because of the geographical and dialectical differences.

In this longitudinal study, the participants would be given a series of phrases that they would have to convey using emoji, as well as a series of emoji phrases that they would have to “translate” into English. Additionally, they would be given a series of phrases that have text words and emoji and they will tell the researcher what the sentence means, who it would be coming from, what the emotional context is for it, and how likely they would be to use those emoji in the same way. For the phrases, they would have to convey using emoji they would have to explain what the emotional tone of the phrase is intended as. This would be to understand how emotion in different age groups dictates the emoji that was used. For the emoji phrases, the participants would glean through the combinations of emoji to understand what the intended message is as well as the emotional tone. This would be able to determine what definition and connotation each age group denotes to the emoji that are used. Moreover, it would demonstrate an individual’s literacy in emoji’s and explain what emoji have fundamental differences in their perceived understanding. Finally, when the participants have to explain the phrases that contain words and emoji this would attempt to replicate everyday speech and how the participants interact with emoji in phrases and how they initially perceive them. Since they will have to explain what the sentence means, what emotion they associate with the phrase, the anticipated sender, and the accordance with their own speech this part of the study would analyze their understanding of emoji when paired with text. Moreover, this would exhibit the participant’s emotional association with certain emoji when paired with text, as well as displaying a participant’s understanding or perception of how other age groups use emoji’s. Finally, it would show how the phrase given would align with the age groups and how the participants identify with emoji usage.

In comparing the sets of data between the age groups the assumption would be that the participants in the same age group would have similar responses throughout the study but the older age groups would have more similarities than the younger age groups would. However, to understand the full range of emoji usage in the age group, there needs to be the repetition of the interview to show how the use of emoji changes and develops in an age group over time. To illustrate this the participants would need to participate in the interview roughly every six months for ten years. This time frame would be able to show the researchers the synchrony and diachrony of their findings.

One key aspect of this methodology that would need to be highly scrutinized is the formulation of the phrases for the participants to interact with. To avoid bias from the researchers of different age groups, there should be multiple different people that would help in the formulation of the phrases. There would need to be representation from different age groups to ensure that there would be phrases that would reflect the emoji usage of each age group and participant rather than the assimilation of the age groups to that particular mean of emoji usage. Moreover, there would need to be careful selection of what researcher is talking to the participants to ensure that the participant’s responses are as accurate and natural to their first instinct and usage of emoji rather than what they perceive they should do. The difference is that to have conclusive data and analyses of said data there needs to be the assumption that the participants are being honest and answering according to what they would do in normal conversation rather than what they believe the “correct” answer would be.

Once the study on age group use of emoji is done, and if the data shows that there could be a difference, this study could be used to apply to different English dialects. Dialects such as African American Vernacular English (AAVE) could potentially show a difference in emoji use. Depending on whether there is a shown difference between age groups and their use of emoji the study would need to change to include participants of one dialect to study if there is an age group difference in that dialect. Afterwards it could be further applied by studying participants across dialects regardless of age to study whether there is a dialect difference in emoji understanding or if it is a result of age difference or other factors.

# Section 5: Implications

The study of emoji could affect linguistics’ understanding of technological use in human communication and how that evolves. Even from 2008 to 2020 there has been an expansion of emoji and they are almost used as their form of communication. As the emoji lexicon increased so did the frequency of emoji use. Emoji have a way of being able to express an emotion that text just is not able to convey on its own through technology. There is the ability to show that a text is supposed to be interpreted one way when without the emoji the intention could be ambiguous. There has been so much change in the study of emoji even though they have only been available for cellular phone usage in 2008. In such a short period of time, there have been studies that explored the misunderstandings behind emoji, emoji usage in a community, and other areas. However, it has only been 12 years since emoji became a cell phone staple. In the greater field of linguistics, this is still a synchronic depiction of emoji use. In the future, once there is enough time and data to be able to see the diachronic effect, further research could show how emoji affect the in-person speech of communities and individuals, how emoji usage differs across languages, and potentially how the usage of emoji affect the emoji that get released. For example, hand signals were created as emoji, but eventually, these emoji were created in a variety of skin tones. Once there is a better diachronic view of emoji research linguists will be able to see how emoji affect speech globally. Emoji research will continue to affect future generations and this is a rich subject to study and explore in the linguistics sphere.

# Conclusion

Emoji vary greatly depending on their use and perception by the receiver. However, this provides a great deal of information and context that is available to the fields of pragmatics and para-linguistics. These cartoons may be pictures incorporated into text conversations to express emotions in the phrase, but as the cliche goes a picture is worth a thousand words. Emoji can express emotions, feelings, irony, and humor that text is not about to do, or able to efficiently do. Emoji used by those who don’t understand the hidden meaning seems like it is an entire language entirely. However, despite these miscommunications, it is clear that emoji have changed the way people communicate via text messages. These miscommunications could stem from stigmatization towards those who use the societal connotation of the emoji most often, the lack of formal syntax integrated into emoji use, or a combination of the two. A longitudinal study on how emoji use affects different age demographics, and how the usage changes over time could provide linguists with a diachronic view of emoji usage and its effect on the English language. Compared to languages with native speakers, an emoji is a new form of communication whose speakers are still understanding how to communicate with others. With further research and time, the linguistics community will know the intricacies of emoji and could explain how emoji enables different demographics to effectively communicate with each other.

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