MA Digital Media
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How Facebook affects the social understanding and self-development
of adults with High-functioning Autism.

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Abstract

Instigated by Theresa Sauter (2014) in her theory that Social Networking Sites act as an aid for forming understandings of self and others (p.832), this study investigates the effects of the use of Social Networking Sites on the social and personal development of adults with high-functioning Autism. Although the benefits of online communication have previously been researched in relation to autism, this is the first time that it has been studied with regards to self-development. Using data collected from six qualitative interviews, it was concluded that Social Networking Sites act as a tool for improving one's social understanding and consequently advancing self development.

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Introduction

In 2011, shortly before my 16th birthday, I was diagnosed with high-functioning autism. Although it is more commonly referred to as Asperger Syndrome, I prefer to use the term Autism Spectrum Disorder (ASD) and will be doing so throughout this study. ASD is a lifelong developmental disability that affects how someone perceives and interacts with the world and those around them. As suggested by the name, autism is considered a spectrum condition, this means that despite sharing specific difficulties all autistic people will be affected differently, no two people experience it in the same way. Those with high-functioning autism, such as each of my interviewees, have an average or above average intelligence, meaning they don't have the learning disabilities that many autistic people do, however, this does not prevent them from struggling with the understanding and processing of language (National Autistic Society, 2018). This concept of autism being a spectrum condition is one of the reasons I favour using the terminology ASD rather than Asperger Syndrome as, due to media influence amongst other things, many stereotypes have developed in recent years. A common assumption formed about people with ASD is that they lack interest in social interaction, however, this is not necessarily the case. In fact multiple studies have shown that people with ASD desire friendships and frequently suffer from loneliness and consequently depression (Dill-Shackleford, Mazurek and Ward, 2018, p.205). Due to the fact that people with ASD find non-verbal communication difficult to decipher, amongst other concerns, is why the use of Social Networking Sites (SNSs) is considered to be a more suited form of communication for people on the autistic spectrum (as I will discuss further in my literature review).

SNSs are considered to be similar to many other genres of social media and online communities, all of which support computer-mediated communication. However, SNSs are different as they offer users a combination of features allowing one to (1) construct a public or semi-public profile, (2) express a list of other users with whom they shares a connection, and (3) view and edit said list of connections as well as seeing those made by others within the system (boyd and Ellison, 2007,

cited in boyd, 2011, pp.42-43). Each of these assets plays a role in the social development of users and is among the reasons that SNSs are currently so popular.

In today's millennial-influenced society more and more people are becoming reliant on the use of social media, including those with ASD. Despite this, however, Dill-Shackleford, Mazurek and Ward reported that only one previous study has directly addressed the use of SNSs in adults with ASD, as the majority of published studies look at adolescents rather than adults and when looking at social development the studies are very much focused on children. However, I did find studies looking at adults with ASD in relation to slightly broader topics such as computer-mediated communication or simply just the internet (see Burke, Kraut and Williams, 2010., van Schalkwyk *et al.,* 2017). Another insufficiency that I noted is the fact that not a lot of existent studies have focused on the high-functioning end of the spectrum, this research deficiency leads to a lack of understanding about adults with autism and just how beneficial the use of SNSs can be in the development of one's social abilities and understandings. With a stronger knowledge of how the use of SNSs affects these developments, new techniques can be developed to help improve the social development of people with high-functioning autism, opening up wider opportunities for them socially, educationally and even in terms of employment.

To take this study further I returned to my previous experience looking at SNSs and using my personal observations as a high-functioning autistic adult, in collaboration with Theresa Sauter's (2014) study on using Facebook as a tool for self-formation, I began to develop a theory into how using SNSs may have more of an effect on the self-development of those with ASD than initially expected. Sauter (2014) essentially concludes that, posting online status updates acts not just as a means of communication but also as a form of self-writing, consequently helping one to develop understandings of their self and establish normative ways of behaving (p.824). Although the self and social media have been researched together from many angles, never before has it been done looking specifically at people with ASD. If a deeper understanding is reached on how the

use of SNSs affects one's self-development and whether this then has an effect on one's social-development, the techniques suggested above could be even more helpful and successful.

This study focussed on answering three main questions:

1. How does the use of SNSs improve the overall social understandings of people with ASD?

2. How does the use of SNSs affect the self development of people with ASD?

3. How do the online selves of people with ASD differ from their real-life selves?

The first chapter supplies the theoretical background for this study alongside an insight into previous research, emphasising the significant gaps currently existent within this department of research. The second chapter explains the methodology adopted throughout this qualitative research study, including the recruitment process, the interviews, the coding and analysis process as well as the modifications made to better suit my autistic interviewees and the ethical concerns existent when dealing with potentially vulnerable participants. Chapter three classifies the main results obtained from the interviews, whilst chapter four holds the analysis and discussion of these results; split into three main themes: Social Development, Trust and Confidence, and Self Development.

I.   Literature Review

As alluded to in the introduction above, this first chapter discusses the theoretical background of this study. Using two main search terms I collected a range of studies discussing: (1) Autism and Social Media, and (2) Social Media and Self. I used these pieces to put together an analysis of the data that already exists and how this can help me further my own research. I also discussed the gaps that currently occur in this area of study, highlighting just how important continuing research is.

I.1 Autism and Social Media

Many common symptoms of autism are related to social communication and interaction. Not only do those with ASD struggle with interpreting both verbal and non-verbal language (ie gestures or tone of voice) but they also often struggle in 'reading' other people and interpreting feelings and intentions. As a result of this many autistic people find it difficult to form and maintain friendships (The National Autistic Society, 2018).

Despite the symptoms discussed above, research has shown that many people with ASD long for friendships and experience significant loneliness. With face-to-face communication posing a particularly difficult challenge, social media has the potential to offer an alternative platform that can alleviate these issues, offering those with ASD more time to consider their responses and use 'text talk' and emojis as a means for understanding emotions better (Dill-Shackleford, Mazurek, and Ward, 2018, p.205).

It has been argued that social media offers ways for people with ASD to considerably increase the social opportunities they get by using platforms that are better suited to their individual communicative styles. Beneficial aspects of SNSs include more structured rules of engagement and less reliance on non-verbal cues such as facial expressions and tone-of-voice (van Schalkwyk, *et al.* 2017, p 2805). These difficulties are even more daunting to those at the 'high-functioning' end of the spectrum, as despite having normal or high intelligence skills and verbal abilities understanding these non-verbal cues can be very difficult, leading to their interactions appearing inappropriate or odd (Benford and Standen, 2009, p.44). It is these misunderstandings that can lead to negative reactions.

Although the benefits of social media for those with ASD has been researched on multiple occasions, most previous studies have used quantitative based methods to collect data that was then analysed from a psychological or medical perspective. Despite this, however, they highlight how important online communication is for those with ASD.

This is emphasised further when one looks at the regularity of social anxiety amongst people with ASD. Maddox and White reported that although the correlation between ASD and social anxiety has been researched on multiple occasions very few studies have looked at adults. They suggest that one reason for this may be the widespread assumption that all individuals with ASD favour social isolation and intrinsically lack interest in social interaction. As stated above, this is not the case for all and particularly those with high-functioning autism who are aware of their social difficulties and desire a solution. This recognition of one's social deficits magnifies the sense of anxiety and increases the fear of negative evaluation by others, leading to inaccurate interpretations of social cues and an avoidance of social encounters consequently offering fewer opportunities to learn and practice social skills (2015, p.3950, see also White and Roberson-Nay, 2009, pp.1006-1007).

Again, as beneficial as this information is, a lot of the studies previously done on this topic therefore delivering limited insight into the social and communicative hindrance actually caused by these types of anxieties.

I.2 Social Media and Self

With Facebook retaining its status as the most popular SNS for longer than any alternative platform, I narrowed down my research to concentrate on this specific site. As Sauter suggests, people use Facebook to write and update their 'status' not just as a form of communication but also as a way of developing understandings of self and establishing normative ways of behaving. This helps them ascertain how to manage their daily action and interactions, whilst navigating the quandaries surrounding their public appearance in relation to self and others (2014, p.824). SNSs, like Facebook, encourage users to make information about themselves available to others, subsequently exhibiting themselves to a semi-public readership. This publication, often displayed in the form of a 'status' update, acts as a means of seeking self-substantiation, recognition and of obtaining help and advice (ibid., pp. 832-834).

With reference to G.H. Mead's theory of identity-formation, Adams emphasises how all forms of self are reliant on social content and a direct product of one's existing social relations (2003, p. 231), highlighting the significance of the aforementioned public readership. He concludes that in order to objectively perceive oneself, an individual needs the ability to look from an 'outside' point of view, using others around them to initiate and confirm opinions. The responses one receives when posting text, images or videos online acts as an apparatus for viewing oneself through the eyes and attitudes of others (ibid., pp.232-233).

As suggested by Mead, our encounters with these 'others' can be split into two categories: encounters with 'generalised others' and 'significant others'. The generalised other being the mass of society and social forces and the significant others referring to individuals and groups. Mead argued that as a result of these encounters individuals begin to see themselves through the eyes of others and consequently symbolise or imagine their self (Mead, 1934, cited in Stuart, 1998, pp.144-245). Both of these categories can be easily defined within social media, Facebook's 'friend' system makes 'significant others' much more prominent across the site, however, joining 'Groups' opens up the opportunity to communicate with people one does not necessarily know.

There are four reasons one may choose to join a Facebook Group: interacting, entertainment, self-status seeking and information (Park, Kerk, Valenzuela, 2009, p.731). These Groups are simply a place for people with shared interests to discuss whatever it is they like in a semi-private space. Those who join groups are said to have a stronger sense of belonging than those who do not (Pi, Chou, Liao, 2013, p.1972).

This links the discussion directly back to ASD because it is common for people on the spectrum to have intense and highly-focused interests, alternatively referred to as obsessions or special interests (The National Autistic Society, 2018). Stuart argues that individuals reside within groups

and cultures and that through the act of interaction and communication with others, individuals begin to identify a 'self' (1998, p.142). For those with obsessive hobbies these groups can play an even bigger role in the development of one's self. Using Rabinow's summarisation, Stuart discusses Foucault's argument that by creating labels such as 'disabled' or more specifically 'autistic' new identities are automatically developed. In other words, '[i]n this process of social objectification and categorisation, human beings are given both a social and a personal identity.' (Rabinow, 1991, p.8, cited in Stuart, 1998, p.143).

Before looking specifically at trust online one must first ask what it actually means to trust someone. Whilst trust can be defined in multiple ways across a variety of perspectives, one element that remains across all theorisations is the expectation of goodwill, (Koehn, 2003, p.7) encompassing ability, benevolence and integrity (Mayer et al 1995, cited in O'Brien and Torres, 2012, p.65). Koehn (2003, pp.5-7) argues that there are four types of trust:

(1) *Goal-based Trust* is formed between two people who believe they share the same intentions, these plans can be bad or good.

(2) *Calculative Trust* is developed when one attempts to predict what the other party will do by seeking evidence of their trustworthiness. Normally as part of utility relationships, in these occurrences trust is less relational and often supported by contracts or rules.

(3) *Knowledge-based Trust* arises when people are familiar with each other and/or frequently interact, it is essentially a friendship rather than a utility relationship.

(4) *Respect-based Trust* exists when two parties share an equal appreciation of integrity and intelligence. Koehn considers this to be the most common form of trust amongst friends who are also good people. With a high level of respect for one another and a disregard for exploitation they openly accept criticisms from those they appreciate, valuing each other to a strong enough extent that one party may even trust the other to make decisions on his or her behalf.

As Golbeck (2013) suggests, trust is rarely all-encompassing. One normally trusts a person about specific things based on the skills and abilities one knows they have (p.78), this highlights how one can feel about all four of these forms of trust towards different people. Facebook's broad demographic appeal and ever-growing list of multiple uses means each of these forms of trust are present when using the application.

As discussed above, people not only have to trust both generalised and significant others on Facebook, but they also have to trust the site itself. Making the decision of whether or not to trust someone involves taking risk and putting oneself in a potentially vulnerable situation (ibid., 2013, p.76). The risk-taking behaviour that is expressed, simply by joining a SNS can be considered the outcome of trust. Creating an account alone consists of numerous trust-based behaviours: revealing personal information, (not) adjusting privacy settings and exchanging social support (Bitter and Grabner-Kräuter, 2015, pp.52-53).

In recent years, concerns over whether sites such as Facebook truly have the users' best interests at heart have increased. O'Brien and Torres (2012) report that concern reached a previous peak back in 2010 after all users' information was made publicly accessible (p.64). In March 2018 it was revealed that the data from as many as 50 million Facebook profiles was given to political data analysts Cambridge Analytica, this number was later increased to 87 million (The Guardian, 2018). Although the effect of this scandal is not yet clear, it is fair to suggest that occurrences like this can and should increase concerns among users. These concerns are by no means new, the main apprehension mentioned by the participants in O'Brien and Torres' (2012) study was the idea that their information is accessible and can be sold on to third parties (p.87) who may use the information to invade one's privacy without permission or awareness.

Even without fears over data breaches, however, it is difficult to completely trust when posting online, as one does not necessarily know everyone that has access to what they are posting. This means there is no history on which to build faith and in certain situations even knowing someone's

true identity can be difficult (Golbeck, 2013, p.82). Despite the majority of people setting their account privacy settings to 'friends only', due to the large amount of friends people have on Facebook they are still exposing their information to what Debatin *et al.* describes as, 'a loosely defined group' (2009, p.102, cited in O'Brien and Torres, 2012, p.89).

Due to the fact that people with ASD supposedly struggle to decipher trustworthiness and instead show a trust bias towards other people's testimonies, unconditionally believing what they are told (Yang, *et al.*, 2017, p.615), I questioned whether they felt the same concerns as the participants in the studies above and whether these suspicions added to their social anxieties when communicating online. If this is the case then the benefits of using sites like Facebook, particularly the less controllable aspects like Facebook groups could, be missed out on.

II. Methodology

This segment explains the methodology adopted throughout this qualitative research study, discussing in detail the recruitment process, interviews and the coding and analysis process. Considering the demographic being researched, I also describe the modifications made to better suit my autistic interviewees, as well as the ethical process when dealing with potentially vulnerable participants.

II1. Recruitment

I began the process by putting together a short quantitative survey online, which I shared on both Facebook and Twitter, tagging key autism based charities and advocates. This was simply a tool to gain a basic understanding of the situation and attract the attention of those who may be willing to participate in a face-to-face interview as organisations and institutions cannot give away the names of autistic people. The survey was completed by 24 people, 11 of whom showed interest in the second stage of research.

Unsurprisingly, due to the social anxieties associated with ASD, very few of those who showed interest actually responded when I later contacted them. This lead to me having to directly contact people I know who have an autism diagnosis.

All the responses I did receive in relation to interviews were from male participants, this too is not a surprise, as although the comparative ratio between male and female diagnoses varies drastically across different researches, ranging from 2:1 to 16:1 (The National Autistic Society, 2018), it is proven that females have a significantly higher risk of their autism being overlooked and undiagnosed. One theory behind this is that there is a female autism phenotype; a female-specific manifestation of the condition that does not fit the current male-based perceptions of autism (Bargiela, Mandy and Steward, 2016, pp.3281-3282).

II2. Measures

A total of 6 qualitative interviews were conducted each of which lasted between 10 and 25 minutes asking approximately 20 questions. All interviews were done in private either face-to-face or via Skype and they were audio-recorded and later transcribed verbatim to aid analysis. In order to preserve the anonymity of participants, each interviewee chose a pseudonym to be used in the analysis of this study.

Interviews were designed using a mixture of techniques from the *Main Branches of Tree* and *River and Channel* methods (Rubin and Rubin, 2012, pp.124-125). I divided the interview into three main sections (branches) reigning in the specificity as the interview proceeded. This gave me the ability to obtain a sense of depth, detail and nuance for each part of the study, however, to ensure the data I collected contained detailed cases and experiences, I made sure not to restrict myself to simply following the list of questions and instead allowed the discourse to choose which channel to follow depending on the responses received by each interviewee. As my research continued I sent follow up questions to participants via email.

I approached this study by looking at the topic from three different perspectives, both in the construction of my interview questions and the structure of my analysis (which I will later discuss in further detail). These three divisions are: (1) Social Media Use, (2) Social Development, and (3) Self Development.

II3. Alterations and Modifications

As described by Byrne (2012), interviews are above all else a 'form of communication'. When looking at interviewing as a tool of social research, one must consider all variables which may affect the results. These include who is doing the interview, who is being interviewed, the location of the interview and the style of questioning (pp. 207-208). Even more consideration must be put in place when interviewing people with intellectual disabilities like ASD. Rubin and Rubin (2012) briefly discuss interviewing 'specialised populations', concentrating on the young, the old and the mentally ill. As they suggest, interviewing these groups of people is important as is interviewing those with ASD, however, in order to do so one must modify the basic responsive interview model (p.173).

The main issue with ASD is that, as discussed in the introduction, autism is indeed a spectrum, affecting each and every individual differently. The alterations made need to be reconsidered for each interviewee in order to fulfil their needs. To fully understand the considerations I needed to make I did some further research into professional recommendations.

It is known that individuals with intellectual disabilities like autism, commonly have difficulties when it comes to communication. This has an effect on their ability to accurately respond in interviews. Previous studies have reported that participants had a tendency to acquiesce or respond 'yes' regardless of the question being asked, this type of response has been interpreted as interviewees responding as they believe is expected rather than what is true. It is advised that in order to prevent this happening, extra time is spent making sure the participant fully

understands the question and on top of that feels comfortable answering it. In order to make sure there were not any inadequate answers as a result of misunderstanding I made sure to send each participate the questions in advance with the option to question me on anything they did not fully understand (Sigstad, 2014, pp.189-192). I also chose not to reveal too much of what the project was about during the interview, without this information interviewees could not make the subconscious decision of what response would be preferable.

Semi-Structured interviews provide a focus based around key topics but at the same time allow interviewees to expand on what they have to say and discuss related subjects that they feel fit. As previously discussed, however, those with ASD may find these questions difficult to answer so it is important to have the ability to reformulate and repeat them until the participant fully understands. As Sigstad suggests an interview guide is a good starting point when preparing your interviewees for the interview (ibid, p.197), I prepared one that includes information about the process as well as the core questions in advance. However, confidence is key and seeing as a lot of my participants live far enough away that Skype was the only option we had for performing the interview, I offered a 'warm-up call' with all of those who I do not personally know. This gave them a chance to get to know me and vice versa whilst also allowing them to clarify anything they were unsure about.

II4. Coding and Analysis

The coding was done manually (without the assistance of specialised software), as most of the previous research I found was quantitative based, coding was done using methods as described by Saldaña (2013), that are reminiscent of the early stages of grounded theory (p.51). This study differs from grounded theory in that only one round of sampling and interviewing was conducted and this being a first exploration means a fully developed theory cannot be constructed from the data collected. However, I did follow some of the main principles of grounded theory as described by Seale, relying on *Theoretical Sampling* as a means for theory construction as well

as a test of theory and *Constant Comparison* as an aid for developing and refining theoretical categories (pp.395-397).

To be more precise I used *Process Coding* and *In Vivo Coding* as a means for focusing on participants' actions on Facebook and in day-to-day life and *Values Coding* as a mode of analysing both the conscious and subconscious 'rules for action' (Stern and Porr, 2011, cited in Saldaña, 2013, p. 111). Using ideas conveyed in each participants' interview responses I created categories which were later adapted and added to as the interviewing process continued.

Once all interviews had been conducted and the coding process was complete I began my initial analysis using the techniques described by Rubin and Rubin (2012). To start, I grouped together all quotes from the same codes and objectively summarised the content, ranking each comment as I went along. Ranking these quotes not only made the data easier for me to process but also gave me additional modes of potential comparison (pp.224-225), this concept is expanded on by Saldaña (2013) who suggests one organises the quotes in multiple orders (ie. hierarchy, chronologically, narratively etc.) as a means of discovering alternative ways of structuring or outlining the final write-up (p.247).

Considering the variety of responses I received, whilst going through this organisation phase I also did some 'weighing and combining'. For each question I received opposite answers so weighing up which was dominant and finding correlations amongst all responses was key in order for me to create my own, reliable interpretations of the results (Rubin and Rubin, 2012, pp. 226-227).

Having arranged the quotes within each separate code I began *Code Mapping*. A simple method of comparing codes before sorting them into categories in order to see which fit well together. Repeating this multiple times is a straightforward method of creating a condensed textual view of

the overall study (Saldaña, 2013, pp.196-198). I did this with the hope that the final categories would answer my initial research questions, the codes were mapped into 8 final categories.

II5. Research Ethics

Due to the fact that the demographic I chose to interview is considered vulnerable, as a result I prepared an ethical review, which was later approved by the University of Sussex Social Sciences & Arts C-REC. There is evidence that suggests ethics committees are more often than not cautious about approving qualitative research projects that involve 'vulnerable' subjects (see Hannigan and Allen, 2003).

The main ethical concern when dealing with people with intellectual deficiencies is their potential inability to give voluntary informed consent. Participants must sufficiently understand what they are consenting to, one's comprehension of situations like this is influenced by intellectual, verbal and memory ability, all things that can be affected by ASD (Dye, Hare and Hendy, 2003, p.12). In order to help inform participants I sent out a sheet of 'consent information' as part of the interview guide. This combined with the back and forth communication we had before each interview, helped guarantee each participant knew exactly what they were taking part in and was also aware of their right to withdraw from the study at any time without giving reason.

Another concern is causing anxiety based on the communicative aspect of the interview, as discussed above alterations and modifications, which were all approved by the ethics committee, were put in place to help participants deal with these difficult situations.

On top of this, the recruitment process, as discussed previously, was made harder by laws such as the Safeguarding Vulnerable Groups Act 2006, personal information cannot be shared by organisations who work with such people. This meant I had to find each of my participants first hand using the methods described above.

III Results

This section presents the main results obtained from the six qualitative interviews that took place. The results are divided into five categories of discussion, (1) Fear of Misinterpretation, (2) The Perks of Online Communication, (3) Trust and Anonymity, (4) One's Self, and (5) Community.

III1. Fear of Misinterpretation

Several of the studies mentioned in my literature review suggest that online communication, particularly that which takes place on SNSs, is better suited to people with autism simply due to the lack of non-verbal cues one has to decipher (see van Schalkwyk, *et al*. 2017, p.2805., Mazurek, 2013, p.1710., Burke, Kraut and Williams, 2010, p.428). However, when asked whether they preferred communicating online, four out of the six interviewees said they actually favour communicating face-to-face, with their main reason being this absence of non-verbal cues. Being unable to read the other person causes significant social anxiety for these participants and a fear of misinterpretation.

> Aidan: 'Getting a message and not knowing the context from facial expression or body language makes it a *lot* more difficult to interpret. I'm worried that I'll misinterpret it.'

> Xavier: 'Messenger is all very cold-cut, all you have is straight text. I like being able to read how a person is when they're talking to me so I can engage in the situation and respond accordingly.'

> Jeffrey: 'You have to make sure that you say things in such a way that it can't be misinterpreted, if you haven't thought it through it can come across in a few ways.'

Emojis are considered a growing part of today's language, used specifically to convey emotional context by replacing facial expressions, they play a critical role when it comes to understanding

online conversations (Browning and Seale, 2017, pp.14-15). All participants agreed that emojis help control their fear of misinterpretation albeit to different extents.

> Gary: 'Ah yes, very much so. See I know it's maybe not cool to use emojis, they're prone to being overused, but I still find them very useful for conveying whatever it is I want to convey.'

> Jeffrey: 'Some things which potentially could be a joke or could be marked as offensive, if you just send it to people they may take offence to it, but anything sent with a laughing emoji you can assume is a joke.'

> Aidan: 'If I receive a message with a smiling or laughing emoji, I know it's a positive message and the same if it's a negative emoji, so I know how to react accordingly.'

> Ben: 'If anything it makes me understand them a bit more, as sometimes it is a bit difficult to understand people's emotions.'

> Xavier: 'Emojis sometimes help but even then you can sometimes misinterpret them or you don't quite understand what kind of tone they're trying to convey.'

> Bradley: 'They are a very visual way of augmenting what I write. So it adds a visual layer, of not necessarily emotion but meaning. I don't find it hugely useful.'

The fear felt by these interviewees could be accentuated by the fact that they all have high-functioning diagnoses as discussed by White and Roberson-Nay (2009, p.1006). In terms of why this anxiety is felt more online than when communicating face-to-face, it could be argued that this simply comes down to a matter of experience, several participants joined Facebook at what

would be considered a 'late age' (a few due to peer-pressure), however, they've all been talking to people their entire lives.

III2. The Perks of Online Communication

Despite feeling anxious when communicating online, for many of the participants the functionality of sites like Facebook outweighs the negatives making it their primary form of communication.

> Gary: 'I reckon social media is definitely useful for staying in touch. That's how I stay in contact with my partner who lives in Sweden. Messenger is actually very important for us.'

> Xavier: 'My favourite thing is just being able to contact or keep in touch with people no matter where they are, that's always the best part.'

> Aidan: 'It's useful to keep in contact with people when they're not in the same city as you.'

> Bradley: 'My favourite thing would be the ease of communication, how it links people, makes it very easy to reach people across a spectrum of interests and maintain relationships with them.'

Two positive aspects of SNSs that were mentioned by Benford and Standen (2009) are visual anonymity and flexible timing (p.51). Both of these were also mentioned by interviewees, in fact anonymity gives several participants a significant boost in confidence when talking to people online as does the reduced time-pressure.

> Xavier: 'With the slight anonymity that online presence gives you, it gives you more confidence to do things that you probably couldn't say or do in real-life.'

Aidan: 'What I say online *is a lot* better thought out than how I speak because I have time to draft a message and go back over it, where as face-to-face is more on the fly.'

Jeffrey: 'I don't hide details of my life, but have maybe a slight amount of extra confidence than I would have if I was physically speaking to someone, because I'm sitting behind the anonymity of a keyboard.'

These positives, amongst others, have an ever growing impact on the user's self-development and how social media use affects it.

III3. Trust and Anonymity

It has been noted that an increasing number of SNS users, specifically young adults (aged 18-29), are becoming increasingly aware and anxious about their online activity, as the profiles they create online remain available to employers, co-workers and friends both in the present and in the future (O'Brien and Torres, 2012, p.67). This was evident amongst a small percentage of my interviewees.

Xavier: 'One thing about Facebook, is that unless you set your profile to private it does make you a bit too exposed to certain people. If they know what your name they can find you. [Q: Is yours private?] No mine isn't private.'

Gary: 'If people have my name they can potentially look me up and all of that old stuff is still out there in the public domain. I've deleted some of it perhaps out of paranoia that it may be used against me at some point, by either a government or a private individual.'

One way of reducing this anxiety is for one to retain a sense of anonymity. As discussed above this increases users' confidence and makes them feel more able to share certain aspects of their life. O'Brien and Torres (2012) concluded that although Facebook users are cautious with what

they post online, some decisions still seem to be driven by a longing for social acceptance (p.93). This is even more important for those with autism as a growing body of research indicates that many people with ASD experience significant loneliness (Dill-Shackleford, Mazurek and Ward, 2018, p.205).

III4. One's Self

As argued by Benford and Standen (2009), social media is liberating for individuals with high-functioning autism, delivering the ability to explore and express their identities and increasing their social confidence (p.51). Using this theory, as well as taking guidance from Sauter's (2014) concept that online self-exposure acts as a means for people to navigate right and wrong conduct in the context of increasingly complex social realities, establishing ways of directing future behaviour (p.833), I looked into whether my participants felt their online self was any different to their real-life self and whether using social media over the years had changed them in any way.

When discussing their online selves in comparison to real-life selves, multiple participants returned to the idea of anonymity, saying that it gives them more confidence and the ability to hide certain aspects of their lives.

> Jeffrey: 'You can tell people what you want them to know, I would never invent a story but if I want to leave a very specific aspect out, I just won't bother mentioning it.'

Others simply mentioned specific dissimilarities between their online self and real-life self,

> Bradley: 'My online self is much more serious. Because I partially use social media for networking so I want to present a more professional, mature image of myself.'

Deliberating whether their online selves have changed, the responses were very varied, with some claiming to be exactly the same, others claiming they no longer use Facebook enough to inspect the changes and a few participants describing a varied selection of personal modifications.

Ben: 'I'm not telling people every detail about my life anymore so I'm therefore not infringing on them, that's my main feeling. In the early days I used to talk about anything and everything especially trains, since then I've quietened down a lot. I think I'm a lot more reigned in.'

Aidan: 'I think my online self has changed in that I use over-explanation more. I previously noticed that people would misinterpret what I was saying, so over time I've just added more and more explanation.'

Jeffrey: 'I now discuss more things on Facebook than I ever thought I would, but more because I now have friends that I can speak about more in-depth stuff with.'

Throughout the process more than one interviewee displayed negative opinions of their younger selves, albeit potentially subconsciously. This insinuates a feeling of personal change even if they did not directly admit to it.

Ben: 'Facebook memories remind me daily that I was a fool on social media.'

Gary: 'Not much has changed, well other than the fact that I was embarrassing as a teenager.'

Jeffrey: 'Being younger I was viewed as one of those weirdos at school, who was nerdy, played video games and spent too much time reading, you know the stereotype.'

Although these opinions were not developed directly as a result of using SNSs, the overall understanding one gains from using sites like Facebook, of not just one's self but also other people in general, helps establish a sense of normative behaviour. Several of those who spoke negatively of themselves also discussed gaining an understanding of other people.

> Gary: 'I've got an improved understanding of people.'

> Ben: 'I understand people's emotions when they talk, I understand a bit more of the diversity of people's opinions, generally I've just learnt to understand people better.'

In order to gain an objective self-awareness, an individual needs the ability to look from an 'outside' point of view, using others around us to initiate and confirm opinions. The act of reflection itself is solely reliant on the beliefs and actions of those around us (Adams, 2003, pp.232-233). In today's society social media acts as a key tool for this, the responses one receives when posting text, images or videos online acts as an apparatus for viewing oneself through the eyes and attitudes of others. One is not necessarily consciously aware of these beliefs yet reacts to them none-the-less.

III5. Community

It is highly common for people with ASD to have intense and highly-focused interests, alternatively referred to as obsessions or special interests (The National Autistic Society, 2018). SNSs like Facebook offer significant social benefits as they present online communities which provide a forum, for people with similar interests and experiences, to converse at any time of day or night (Burke, Kraut and Williams, 2010, p.426). All interviewees affirmed that they are or at least were members of Facebook Groups which are connected to their special interests.

Jeffrey: I'm part of many communities connected to the games I like, where I speak to people on a regular basis, most of whom I've never met.

Xavier: I'm still a member of the Animation Society and Doctor Who Society from University and I am also part of two groups on Facebook called CBBC Edposting, which is people making jokes or saying 'hey d'you remember this from CBBC' and also Geek Asylum which is just general nerd culture.

Bradley: There's a couple of foody groups on Facebook that I'm a member of and actively post on.

Aidan: I used to but I find they just clutter up the News Feed.

Groups are one of the most popular features of Facebook, acting as discussion forums and threads based on common interests and activities (Park, Kerk and Valenzuela, 2009, p.729), however, Facebook Groups and sense of community that comes with joining one offers more than just a space to communicate.

Jeffrey: 'When I was at school, I used to feel like an outcast because there's not many people who are the clever, nerdy sort. So going home and being able to speak to like-minded people was kind of an outlet.'

Those who join groups are said to have a stronger sense of belonging than those who do not (Pi, Chou, Liao, 2013, p.1972). This idea of community and belonging links to the development of self. Returning to Rabinow's translation of Foucault, the process of social objectification and categorisation, gives people both a social and a personal identity (Rabinow, 1991, p.8, cited in Stuart, 1998, p.143). These categorisations can be based on anything associated with a person

and alterations can be made to detach oneself from labels that one no longer wants to be associated with.

IV Discussion

This chapter blends theoretical insights, some of which were previously discussed in the literature review, with the experiences discussed by the participants. It is split into three main themes: (1) Social Development, (2) Trust and Confidence, and (3) Self Development. Aspects of these categories may overlap. It is this deliberation that lead to my conclusion that will be present in the next section.

IV1. Social Anxiety

Social deficits are considered a common symptom of ASD as is social anxiety. According to Albert Mehrabian, communication is split into three sections: 7% is verbal, 38% is tonal and 55% is displayed via non-verbal body language (Mehrabian, 1981, cited in Kiatkulpiboone and Paris, 2018). Considering that 93% of communication is non-verbal and those with autism struggle to decipher non-verbal cues (Mazurek, 2013, p.1710) and also as I will discuss in relation to my interviewees further on, have difficulty reading tones of voice, it is not surprising that many adults with ASD experience significant levels of social anxiety (ibid., p,1709).

Maddox and White (2015) describe social anxiety as an excessive apprehension about social situations, a common cause of which is a fear of receiving negative responses or opinions from others (p.3949). This definition strongly coincides with the answers given by my interviewees when asked what makes them anxious online.

Ben explained that when posting statuses on Facebook he gains a sense of trepidation due to his hopes versus expectations of response. Essentially what he is saying is that despite hoping for 'likes' and positive comments he expects he will receive the opposite, this is unsurprising as out

of all interviewees Ben was the most open about his self-doubt, albeit not necessarily consciously. It could be due to his high-functioning diagnosis and his understanding of his social deficits that he is certain he will receive a negative evaluation from others (ibid., p.3950). All six interviewees have high-functioning diagnoses, however, Ben is the most active when posting statuses on Facebook, so other participants experience these anxieties in alternative ways.

Both Bradley and Xavier specifically mentioned feeling insecure when they are alerted to the fact that someone has 'read' a message they have sent but not responded. This feature, amongst others, is known for making people feel a significant amount of social pressure. Messaging apps, like the one associated with Facebook, are becoming ever increasingly pivotal to social communication and those using them expect an immediate response. As discussed by Pielot et al. (2014) this expectation of immediacy can cause anxiety for both the sender and receiver. From the sender's perspective not receiving a reply within the expected time-frame can lead to a sense of insecurity. Receivers, on the other hand, feel an ever-increasing pressure to respond to potentially dozens of messages from multiple people within the expected amount of time (p.3319).

Features such as one's 'online' or 'offline' status and the ability to see when a message has been received and then also read, can have a significant effect on site-users as people commonly read too much into this information, Xavier himself admitted to doing just that. Having this information at one's disposal creates a sense of social pressure for both sides of the conversation and can also leave people feeling as though their privacy is being slightly violated.

When the other party fails to respond to queries on whether something has been misunderstood or taken offensively, it can quickly increase levels of anxiety. Over-thinking the situation and getting oneself into a panic-attack is a potential scenario common amongst adults with autism.

IV2. Misinterpretation

To further discuss social anxiety whilst looking specifically at the fears and experiences of online misinterpretation, I shall look at a concept referred to as Poe's Law. In 2005, a creationist forum user who went by the name of 'Nathan Poe' posted a comment which developed into the idea that is Poe's Law, he stated:

> 'POE'S LAW: Without a winking smiley or other blatant display of [humour], it is utterly impossible to parody a Creationist in such a way that someone won't mistake for the genuine article.'

Although originally conceived in relation to jokes about religious views, Poe's Law acts universally across discourse on social media, essentially stating that online jokes are indistinguishable from genuine opinions without the addition of emojis or similar symbols (Aikin, 2013, p.301).

The theory of Poe's Law was used by Gary when describing why using emojis in conversation is so important to him, he admitted to misinterpreting satirical content on multiple occasions. In addition, when looked at in further detail, Poe's Law conforms to the experiences of several other participants too.

A good example of this is sarcasm. When spoken face-to-face sarcastic comments are delivered with an altered tone of voice, however, this cannot be replicated via text so emojis must be used instead (ibid., p.303). Three of my interviewees directly agree with this having specifically mentioned the lack of tone in their interviews. Bradley reluctantly admitted to misinterpreting online messages, blaming it on the fact that tone is non-existent within written content and therefore emojis definitely help. Xavier discussed that one is able to convey a lot via verbal tone, something which does not traverse into digital communication leading to misinterpretation. Jeffrey too, spoke about how without a voice or emoji displaying the context he can often completely misinterpret messages.

Returning to Mehrabian's concept of silent messages, only 7% of communication actually relies on words. Kiatkulpiboone and Paris (2018) argue that when communicating online emojis act as a replacement for the other 93% (p.25). This is a significant amount and includes the aspects, which as mentioned previously, those with ASD typically find harder to interpret.

Looking at emojis in further detail, despite discussing them in relation to court cases, a lot of what Browning and Seale (2017) say is very relevant when observing emojis from a general perspective and even more so when considering it from an autistic perspective. In fact, when describing the positive uses of emojis in investigations, the highlighted aspects match up to those discussed by my interviewees. Browning and Seale explain how emojis offer a sense of context and help clarify the meanings of messages potentially transforming a sentence from a serious statement into a joke (p.14).

Despite these positives, however, Riordan (2017) suggests that emojis do not translate as well from writer to reader as non-verbal cues do when talking face-to-face (p.553). Based on the fact that many of my interviewees specifically stated that the lack of non-verbal cues is the reason they prefer not to communicate online, I believe this is probably the case. Riordan argues that the reason behind this is that using emojis is a deliberate action whereas smiling when someone says something funny is involuntary. Therefore, when one reads a message with a smiley face at the end of it, one cannot be sure whether the sender is displaying an honest emotion or not (ibid., p. 553). Of course for those who find non-verbal cues difficult to read, or even difficult to display, emojis can be easier to understand and very helpful when trying to display one's own feelings.

It is already evident that the use of emojis has both positive and negative effects when communicating online, however, it becomes even more complex when one considers non-face emojis. Non-face emojis can be used to represent both actual objects and concepts, the key example being the aubergine emoji which is frequently used as a symbol of male genitalia. In

fact, meanings of emojis are flexible, potentially altering from person to person (ibid., p.555). This sense of elasticity can be seen as a negative when it comes to people with autism. Emojis are used to understand the context of conversation, but if emojis are being used metaphorically then this can be difficult as adults with high-functioning autism have been found to have a tendency to read everything literally, struggling to recognise sarcasm and metaphors and therefore misunderstanding the intentions of conversation (Joliffe and Baron-Cohen, 2000, p.1183).

This inability links in to something I will discuss in further detail in the next section, which is that those with autism have difficulties recognising the truth from lies, more often that not believing what other people tell them. Returning to Poe's Law, the theory states that for each parody site there is at least one genuine page with potentially even more extreme views on it. Therefore without evidence that the site is specifically parodic one cannot be expected to be able to tell the difference between the two (Aikin, 2013, p.304), even less so when on the autistic spectrum. When it comes to sites like Facebook one can normally tell whether a close friend is joking or not as they are familiar with their style of humour and overall writing, however, when on a 'Page' with people one does not know or even just when seeing statuses posted by people with whom one is less familiar, making these decisions is not as easy and can lead to unnecessary conflict. Aidan affirmed that it can take him up to a year to adapt to a 'friend's' style of messaging and he often misinterprets what they say in the meantime.

Another topic I will look at in greater detail, further on in this discussion, is that of Facebook Groups. The fact is, when online one not only has to worry about communicating with individual friends but also groups of people, some of whom one is likely to not know. Poe's Law comes into play as even when a disclaimer has been made, that posts must either be all satirical or all true, you cannot guarantee that everyone will abide by the rules. This means that even in what seems like a more controlled environment one cannot actually tell if someone is being serious or joking (Milner, 2013, p.74). What makes this situation even harder to master is the fact that when in a closed Group, everyone is more than probably 'in on the joke', however, once things start getting

shared and publicised this can no longer be expected let alone guaranteed (Phillips, cited in Ellis, 2017).

Milner concludes that Poe's Law has a significant effect on online public discourse. Arguing that even when one can easily read content and form, the more subtle aspects of discord such as tone and intent are much harder to read (2013, p.89). With four out of six interviewees admitting to finding online conversations difficult for this exact reason there is no doubt that what Milner says is correct and as online communication broadens and becomes ever more essential to everyday life so too does the power of Poe's Law (Ellis, 2017).

IV3. The Positives of Social Media

Although the majority of interviewees said that they preferred communicating face-to-face they did all agree that using SNSs had benefited their communication in one way or another. Previous research has also revealed other positives, for example Dill-Shackleford, Mazurek and Ward (2018) reported that individuals with ASD who use social media are happier than those who do not and those who use Facebook specifically are again happier than those who do not (p.207). Mental health and happiness was not something I questioned my participants on and this is not my expertise, however, it was a topic that appeared in several of the readings quoted in my literature review. Based on what I have read and what my interviewees have told me, I do believe that some of the beneficial aspects of SNSs, which I will now discuss in more detail, play a significant role in helping users feel happier.

When asked what their favourite thing about Facebook was, two of my six participants replied by discussing the site's 'usefulness'. This is just one of several positive aspects of Facebook that was mentioned by my interviewees. Four out of six discussed the ease of communication when online and how using Facebook helps them stay in-touch with friends and partners who live in alternative cities or even countries. As Bradley discussed this flexibility covers more than just area, Facebook

give one the ability to build and maintain relationships with people who have a variety of interests and backgrounds.

One thing which makes this form of communication straightforward for people with ASD is the reduced pressure one feels due to the extended time one has to process and construct messages. This means when sending messages one has the ability to make sure they are communicating appropriately and tactfully, whilst also having more control over the structure of the conversation (Benford and Standen, 2009, p.48). Interviewee Aidan agreed that when online he is able to think through what he says, drafting messages and going back over them multiple times, whereas when speaking face-to-face the conversation is more 'on the fly'.

Considering that sleep problems, including insomnia, are regarded one of the most common comorbid conditions experienced by individuals with ASD (see Baker and Richdale, 2017), the flexibility of time online offers multiple benefits. Facebook gives one the ability to contact and converse with people who have similar interest and experiences at any time of day or night (Burke, Kraut and Williams, 2010, p.426).

Another positive which was discussed in several of the readings quoted in my literature review as well as by my interviewees, is the concept of visual anonymity. I shall not go into much detail now as I will be discussing this idea in further detail later on. However, Benford and Standen (2009) argue that it is this sense of visual anonymity along with flexible timing that helps reduce the social and emotional pressures of interpersonal communication and the complex cognitive process involved (p.51) when communicating online.

IV4. Trust and Security

As discussed previously, signing up to and then posting on SNSs sites such as Facebook not only involves developing a sense of trust for the specific site and corporation but also for the other users. I believe this is very relevant to the development of one's online self.

Returning to Sauter's (2014) theory that posting 'status' updates on Facebook acts as a means of self-development, it becomes clear that trust is pivotal to this process. A lack of trust can limit what one feels safe writing, preventing them from using social media to help shape and reveal the way in which they understand and relate to themselves and others (p.834).

Even more so, when opening up a personal vulnerability, as the social impairment people with autism have can make them more susceptible to the deceptive behaviour of others (Benford and Standen, 2009, p.49). Although discussed specifically by very few participants, what was said matched up well to previous findings. Gary admitted to feeling paranoid that things he's posted in the past may be used against him either by the government or private individuals, displaying a concern that what is posted online is not necessarily secure. Xavier on the other hand confessed that despite feeling that Facebook can be a bit too exposing, due to the fact that if someone knows your name they can very easily find you, he has not chosen to set his security settings to private.

It has been noted by O'Brien and Torres (2012) that an increasing number of social media users are becoming aware of their online activity and the fact that the profiles they create remain visible to employers, co-workers and friends both in the present and in the future (p.67), they also concluded that despite the majority of their interviewees presenting concerns over their information being sold on to third parties not all of them have actually changed their privacy settings.

Many of Burke, Kraut and Williams' (2010) participants disclosed stories of bullying and being taken advantage of as triggered by their willingness to believe others. Repeated occurrences of victimisation leads to a wariness of new 'friends' online (p.430). Four out of six of my interviewees also reported negative experiences online including posting offensive pictures, videos and comments about/of them online. However, when discussing these experiences both Jeffrey and

Gary were keen to come up with an excuse, blaming it either on their own naïvety or the immaturity of others.

Although my interviewees seem to have coped reasonably well with these negative experiences, for some it can cause a significant amount of anxiety, leading to one holding back from posting more personal or controversial topics online. For those with ASD who require direct responses to understand what is considered acceptable or 'normal' this can restrict their understanding and development. On top of this the stress itself can prevent them from posting at all, leading to a feeling of isolation and loneliness. In fact, Aidan specifically said that using Facebook to retain communication with people prevents him from being isolated.

Despite these reported concerns the majority of people still feel safe posting highly personal information online, one suggestion as to why this is the case is that when online the desire for social interaction outweighs the concerns one has about online privacy (ibid., p.67). Both Ben and Aidan admitted that they joined Facebook due to peer-pressure and the majority of interviewees mentioned using it to keep in touch with friends.

One of the most popular features of Facebook is Groups, acting as discussion forums and threads based on common interests and activities (Park, Kerk and Valenzuela, 2009, p.729), unless the group is set-up privately anyone can join and therefore one does not know who potentially has the ability to see what they post. In fact, due to the algorithms that selectively decide which data is shown to whom, even if one posts with a specific person in mind, who views that post in only partially within one's control (Hogan, 2010, p.381). This is made worse when one considers the fact that, despite the majority of people setting their account to the privacy setting 'friends only', due to the large amount of friends people have on Facebook they are still exposing their information to what Debatin *et al.* describes as, 'a loosely defined group' (2009, p.102, cited in O'Brien and Torres, 2012, p.89).

This becomes even more complex when one attempts to control it, Ervin Goffman discusses how one presents one's self differently depending on the group of people one is with, Rettberg (2017) uses this to examine how when on Facebook, one is friends with a variety of people, ranging from close family members to people that one has never met, even if one is attempting to keep these publics separate from each other it can sometimes be impossible (p.7). This leads to context collision, even if the immediate audience understands the intended message, the potential audience may not and can easily misinterpret what is being said (boyd, 2011, p.50). This is even more likely if one has a special interest which they enjoy posting about. Although it causes confusion and potential anxiety this sense of being unknown online does have its positives.

IV5. Anonymity

One aspect of SNSs which is linked strongly to the issue of trust is the potential of anonymity. Although sites like Facebook are designed as a means to connect with one's friends, there are also multiple opportunities to communicate with people whom one does not actually know, some of whom may not be fully open with their identity.

Both Bitter and Grabner-Kräuter (2015) and Ziegler and Golbeck (2007) mentioned this whilst discussing online trust, as uncertainty and anonymity play a significant role when it comes to making decisions. The provision of anonymity facilitates one with the ability to share false and misleading information. Trust gives one the ability to decipher the relevant and reliable sources from the unreliable, playing a significant role in reducing one's sense of uncertainty and simplifying relationships. This act of deciphering can be hard for those with autism, however, as research shows they struggle and tend to show a trust bias towards other people's testimonies, unconditionally believing what they are told (Yang *et al.,* 2017, p.615).

Just as the desire for social interaction lightens the negative weight of online trust issues, anonymity acts as a means of reducing online social anxiety counteracting with the concerns caused by the potential uncertainty. Jeffrey said that by remaining partially or completely

anonymous online, he has a higher level of confidence than he would have if he were speaking to people face-to-face. Xavier also admitted that being unknown on SNSs gives him an assurance to do and say things he would not feel able to in real-life situations.

This increased level of confidence can be liberating for individuals with high-functioning autism as it consequently expands their opportunities in terms of support, education and even employment (Benford and Standen, 2009, p.51). The more people feel able to communicate and converse with others the more they do so, continuously improving and developing their social abilities and understandings. When one feels anxious one is less likely to approach and communicate with people face-to-face, potentially leading to social isolation.

IV6. One's Self

According to Sigmund Freud the self is divided into three sections, which were translated as: the ego, the super-ego and the id. The ego is the self-consciousness, the part of one's self identified by one, the super-ego is the conscience, the moral and ethical values instilled in one throughout life, keeping an eye on one's thoughts and actions attempting to prevent one from doing anything unacceptable, and the id contains all the aspects of one's self which one chooses to repress or deny (Freud, 1930, cited in Burkitt, 2008, p.22). In this discussion I will look at concepts that encompass all three forms of self.

To first put things simply, however, our self is 'who we are'. Yet, as Burkitt (2008) argues, in today's complex society one can become many different things to many different people, meaning there may not be just one single answer to the question, 'who am I?' Furthermore, it is possible that none of the roles one plays feel correct (p.1).

Looking at Stuart's discussion of Foucault, this idea of feeling as though one's self does not quite fit the bill, could be caused by the creation and placement of labels. As '[i]n this process of social objectification and categorisation, human beings are given both a social and a personal

identity.' (Rabinow, 1991, p.8, cited in Stuart, 1998, p.143). If receiving a label has this effect, then it can be expected that so too would receiving a diagnosis such as High Functioning Autism or Asperger Syndrome, consequently connoting the idea that autism makes one who they are. When I asked my participants whether they felt their condition defined them I received a range of answers, with one straight no and several more complex responses. Gary described it as a tricky question, as it is the only way he knows how to live but he believes one should not let it limit them. Xavier suggested that it comes down to how other people see you and whether it defines one in their eyes.

This idea of using other people's opinions to work out aspects of one's self is not surprising. According to Burkitt (2008), whether one notices it or not, the process of discovering one's self perpetually involves engaging with others (p.1) and this is where the use of social media comes into the equation. With social anxiety leading to avoidance of social encounters, people with ASD frequently turn to communicating via SNSs where they feel far less social and emotional pressure.

For a long time, writing has been used as a tool for self-formation. With the rise of SNSs writing has been transferred from pen and paper to Facebook, where people write and post 'status' updates not just as a means of communication but also as a way of developing understandings of their self and establishing normative ways of behaving. This helps them to figure out how to manage their daily actions and interactions, whilst navigating their public appearance and relation to self and others (Sauter, 2014, p.824), developing these understandings as a result of using social media is key when it comes to increasing one's social confidence.

Making these recognitions and deploying them links back to the concept of having a super-ego. One's conscience is considered to be an 'inner self-regulatory system' (Kochanska and Aksan, 2006, p.1589), noticing that one is not adhering to the social norms is a sign of self-regulation. Making the decision to start changing the way one communicates in order to comply with what is considered socially correct is an act of the super-ego.

Although the majority of my participants felt that social media had not had a significant effect on their face-to-face communication skills, I believe using sites like Facebook has provided invaluable levels of understanding which inadvertently have had an evident effect on their social confidence and overall selves.

This development was highlighted by the negative opinions several of my participants displayed throughout the process about their own past selves. In particular Ben, who referred to himself as being a fool on four separate occasions, stating that the Memories section on Facebook notifies him daily of the foolish things he used to post. Gary claimed that the only change in his online self was the fact that he was embarrassing as a teenager, with the 'was' emphasising the fact that he no longer feels he is, Gary also admitted that he has recently deleted a significant amount of his old posts partially as a reaction to paranoia but also as a means of hiding his previous self from potential employees.

This denial of development accompanied by this disapproval of one's previous self is not the only evidence of the id shown throughout the interviewing process. Several participants also suppressed the fact that they were bullied online either blaming their negative experiences on the naïvety and ignorance of their online 'friends' or their own naïvety, claiming that it is only expected based on what they used to post. This act of taking the blame links back in to the self animosity described above.

Although these opinions are not directly derived from the use of SNSs, they clearly show a development in understanding of what is considered to be socially normal. Sauter (2014) argues that using sites like Facebook as a means of self-exposure helps one navigate what is right and what is wrong in the context of an increasingly complex social reality. Self-writing assists one in addressing and reflecting upon social norms, concluding in an establishment of ethical guidelines by which to live. Writing about one's errors and mistakes online not only documents failure but at

the same time indicates an attempt to adhere to social norms. Revealing one's faults to others and engaging with their conduct helps to establish ways of guiding future behaviour, feedback in particular assist us in shaping our future selves (pp.832-833).

In February of 2016, Facebook made a significant change to the mechanics of their site when they introduced 'Reactions'. This gives users six options, displayed in the form of emojis, of how they want to respond to another person's post, rather than just the ability to 'like' it. The reactions available include: like, love, haha, wow, sad and angry. Being able to receive negative responses as well as positive opinions adds an extra level to the information one can gain based on engagement and feedback. As argued by Adams (2003), the responses one receives when posting text, images or videos online acts as an apparatus for viewing oneself through the eyes and attitudes of others (p.233). The clarity one receives as a result of these responses helps develop one's understanding and provides in the process of establishing what is considered to be normative behaviour.

Admittedly one could argue that this increase in understanding is merely an aspect of growing up, however, it has been found that using SNSs offers individuals with high-functioning autism methods of considerably increasing the social opportunities they get by using platforms that are better suited to their individual communicative styles (van Schalkwyk, 2017, p.2805). These easier to use platforms deliver users the ability to explore and express their identities whilst increasing their social confidence, consequently expanding their opportunities in terms of support, education and even employment (Benford and Standen, 2009, p.51).

As explained above the ego is what one recognises about one's self. However, this is not necessarily what one displays online. A representation is considered an object or a sign that has been constructed and is exhibited instead of the object to which it refers. Representations cannot mirror reality as everyone has different experiences and interpretation of 'reality', meaning each

and every person interprets things differently, this is also the case for overall cultures (boyd, 2011, pp.3-4). This concept of representation is emphasised when discussing online alterations.

IV7. Alterations

Lincoln and Robards (2017) reported that although those interviewed admitted that their use of Facebook is no longer consistent, their profiles hold too much data for them to completely discard the account. Facebook is essentially an affluent archive of textual and visual memories (p.520). This corresponds with the responses I received, considering that the majority of my interviewees discussed a significant reduction in their Facebook use yet none of them have deleted their accounts. This of course links back to the usefulness of the site and the ease it brings to one's communication.

Although this concept of 'profile' is not unique to SNSs, it is central to them. Acting as both a centre of communication and interaction and an online representation of the individual user. Due to the inherent social nature of one's Facebook profile, alongside the fact it is potentially public, participants are known to actively and consciously craft their profiles based on how they intend others to see them (boyd, 2011, p.43). This act of crafting is displayed firstly through what one decides to post in the first place, due to the fact that the majority of my interviewees admitted their use of Facebook has altered in one way or another since they first began using it, it is clear to see that this is something taken into consideration. It is shown secondly, when one decides to remove past posts or photos, there are multiple reasons one may do this.

Having the ability to scroll back through one's timeline gives one the ability to reflect upon past posts and how relevant they are to one's current identity (ibid., pp.529-530). Looking back over past posts was made easier back in 2015 when Facebook introduced On This Day, a new way of looking back over one's past by displaying posts from the same date in previous years, this application was then relaunched as Memories in 2018 (Newsroom, 2018). With the ability to receive daily notifications of one's memories it is easier than ever to reminisce or as described by

Ben above, be reminded of the foolish things one used to post. Returning to the idea of self-development, being reminded of these previous habits and being given the opportunity to objectively perceive oneself from an 'outside' point of view (Adams, 2003, p.232), can help further one's development even more, the ability to see how people previously responded to posts in comparison to more recent uploads also helps one establish normative ways of behaving.

However, due to the fact that many users of Facebook are not fans of their past selves, they do not want this archive to exist. This causes an increased level of self-consciousness and anxiety and is often triggered by key life-transitions such as starting a professional career or a romantic relationship. Content gets edited or removed from accounts in order to re-define one's identity to fit the perceptions intended for new audiences. This also helps one retain similarities between their new, developed self and their online self (Lincoln and Robards, 2017, p.529). Gary agreed with this when he admitted to spending several nights removing content from his Facebook account after recently receiving a job, he also confessed that paranoia played a role in making the decision to do so.

This paranoia is not completely illogical when one considers the excessive accessibility any member of the public has to one's account so long as they know one's name. After all, as described by Debatin, *et al.,* Facebook allows users to create 'superficial' social relationships with a large but loosely defined group of people (2009, pp.101-102). However, there are aspects of Facebook that help one create better defined groups of people with whom to share specific posts. In fact, for many people with ASD, Facebook delivers a hub of community that appears to be inaccessible in the 'real-world'.

IV8. Community

Groups are one the most popular features on Facebook, acting as discussion forums and threads based on common interests and activities. Park, Kerk and Valenzuela (2009) reported that there are four reasons one may choose to join a Facebook Group: socialisation, entertainment, self-

status seeking and information (pp.729-731), each of which is evident in this discussion. However, joining and participating in Facebook Groups delivers far more than what is connot ed by these four suggestions.

Returning to the concept of special interests or obsessions, a common trait amongst people with ASD, Facebook groups provide users with a forum for people in which people with similar interest and experiences can converse at any time, discuss whatever it is they like in a semi-private space. This gives people the ability to become part of a community, share opinions and connect with others who share similar interests consequently developing a stronger sense of belonging than those who choose not to participate (see, O'Brien and Torres, 2012, p.63., Pi, Chou, Liao, 2013, p.1972., and Burke, Kraut and Williams, 2010, p.426).

As was suggested by my interviewees, this sense of community is utterly essential to the social development and mental well-being of people with autism. When managed correctly, online communities provide one with a platform on which one can comfortably interact without being concerned about receiving negativity or prejudice from others (Benford and Standen, 2009, p.50). Jeffrey expressed how, whilst at school, he found being able to return home and speak to like-minded people online acted as an outlet for his difficulties, explaining how he often felt like an outcast in the 'real-world' but not online. For many the internet is instrumental when it comes to reducing loneliness and developing social networks, one not only gains support from groups but on a one-to-one basis also (ibid., p.50), when discussing how SNSs help him retain contact with his friends, Aidan suggested that without this tool of communication he would end up being very isolated as he has been in the past.

As argued by Stuart (1998), individuals who reside within groups and cultures use the act of interaction and communication with others to begin identifying their self (p.142). This is backed by Ivanic (1993) who stated that the boundaries and differences between social groups play a significant role in the process of establishing one's identity (cited in Bolton, 1998, pp.145-146).

Considering several of the notions discussed in previous sections it only makes sense that becoming part of an online community would help further one's self-development. Many online fan-based communities, also known as fandoms, have nicknames that help distinguish them from other communities. For example members of the Doctor Who community are referred to as Whovians, whilst Star Trek fans identify as Trekkies. Returning to Stuart's discussion on Foucault and my previous suggestion that receiving an autism diagnoses could give someone a sense of identity, it is logical to assume that receiving a community title would have the same effect (1998, p.143). On top of this, with Groups being designed specifically as a means of conversation, they simply offer users an even greater opportunity to develop one's social understanding and consequently receive a chance to explore and express one's own identities whilst increasing their social confidence.

Despite these benefits the use of Facebook Groups, like everything, has negative aspects too. Firstly, there is the previously discussed concern that one does not necessarily know everyone in the group and therefore one cannot be certain who may have the ability to see what is posted. Secondly there is the issue that, even when one does know the other members, it can still be challenging as everyone has different opinions both socially and in terms of what is considered appropriate (boyd, 2011, p.50). When one is conversing in a fan-based Group, opinions can also be excessively varied in terms of the Group subject, this can be hard for people with ASD to process particularly when referring to their special interests. Group based 'banter' and inside-jokes are other aspects of this situation that people with autism may find difficult to navigate, especially when they are new to the community.

V Conclusion

V1. Limitations

Researching a condition that I suffer from myself arguably reduced my objectivity, as stated by Sigstad (2014), it is crucial for researchers to maintain a distance from their own preconceptions

(p.196). Throughout the study I came across multiple suggestions and experiences that matched my own and although this undermined my objectivity, being able to use my own experiences as a means of comparison gave me the ability to further interpret what was said by my interviewees, significantly increasing my subjectivity which is highly important when performing a qualitative research study. Admittedly due to my own social deficits the interviews were not as smooth or fluid as I initially intended, however, I believe the data I received was strong enough on which to build a justifiable conclusion.

My minimal experience in qualitative research also had an effect on the efficiency of my analysis. Having never used coding methods before I found the process difficult to conduct, using Saldaña's (2013) coding manual was helpful but it also introduced me to over 20 different forms of coding. I believe that over-thinking the situation, alongside a lack of confidence, lead to me following the wrong method and perhaps sticking too rigidly to instructions given across the literature that I read.

Debatably, the most significant limitation of this study was the difficulty experienced during the recruitment stage. With only six interviewees all of whom are male, one could argue that the sample is very limited. As I will discuss further in my conclusion, despite this restriction I received a wide variety of results which I was able to use to develop a strong theory. As discussed previously, alterations were made to the methodology of this study in an attempt to create ease for the participants and make sure they were able to answer the questions honestly rather than as they saw fit. Although I do not believe I received any dishonest responses, in hindsight there was quite a lot of denial amongst the interviewees and I feel a lack of confidence lead to several of them holding back on their responses.

The scarcity of previous research looking at social networking use amongst adults with autism was made even more restrictive due to the variation of results as well as the lack of qualitative

studies. However, using my own experiences alongside the research that exists, I was able to develop a concept upon which to work.

V2. Conclusion

Despite the limitations discussed above, strong data was collected throughout the research process. I have used this information to decipher a conclusion in relation to the three main questions that this qualitative research study initially set out to answer:

1. How does the use of SNSs improve the overall social understandings of people with ASD?

2. How does the use of SNSs affect the self development of people with ASD?

3. How do the online selves of people with ASD differ from their real-life selves?

The first conclusion that can be drawn from the data collected is that, everyone uses SNSs for different reasons and consequently experiences alternative benefits and negatives as a result of their use. This is not surprising considering that ASD is considered to be a spectrum condition, affecting everyone in different ways (National Autistic Society, 2018). In fact, despite the amount of interviews performed being minimal, every interviewee delivered different responses throughout the process, creating a broad insight into the variation across the autistic spectrum.

Looking specifically at the research questions, however, distinct conclusions can be made. In relation to how the use of SNSs improves the overall social understandings of people with ASD, I can conclude that the increase in confidence, felt when communicating online, is indeed liberating for individuals with high-functioning autism (Benford and Standen, 2009, p.51). It only makes sense that the more people feel able to communicate and converse with others the more they do so, continuously improving and developing their social abilities and understandings. Not only do SNSs give people with ASD a platform on which to confidently confer with others but social media also acts as a tool that helps this development take place.

By using status posts as a form of self-writing, one can establish an understanding of what is considered normative behaviour, helping one navigate what is right and what is wrong in the context of an increasingly complex society. Engaging with others helps formulate these distinctions, receiving feedback in particular is essential in developing these guidelines (Sauter, 2014, pp.832-833). In fact, even if one prefers to simply drift through their Newsfeed without posting their own content, the ability of seeing what other people post and how others react to it clarifies what is acceptable and what is not. This gives people with ASD a deeper level of social understanding that they can transfer to face-to-face communication.

As said by Burkitt (2008), whether one notices it or not, the process of discovering one's self perpetually involves engaging with others (p.1); this puts into simple terms just how SNSs influence one's self-development. The use of these platforms, that have been proven to be better suited to the communicative styles of people with ASD, gives one the opportunity to explore and express one's identity whilst, at the same time, increasing one's level of social confidence (Benford and Standen, 2009, p.51). The communities one becomes a part of online also play a significant role. Individuals who belong to specific groups use the act of interaction and communication with like-minded others to develop an identification of one's self (Stuart, 1998, p. 142). Many online fan-based communities, also known as fandoms, have nicknames that help distinguish them from other communities, by becoming a member of these groups and gaining a sense of belonging one develops a connection leading to self-entitlement of said nickname. This process of objectification and categorisation leads to the delivery of both a social and personal identity (Rabinow, 1991, p.8, cited in Stuart, 1998, p.143).

Although the difference between one's online self and real-life self is not as evident as the other research focuses, it is indisputable that the way people with ASD behave and communicate online is not the same as in real-life. Whether this is down to the fact that they have more time to process discussions and contemplate how to respond or due to a confidence boost received as a result of online anonymity all participants showed signs of differentiation. These alterations are

highlighted further when profile editing is added into the equation. Not only is one able to amend or remove content from their accounts in order to re-define one's identity and retain similarities between their new, developed self and their online self (Lincoln and Robards, 2017, p.529), but as suggested by participants, due to the anonymity one can choose to leave out aspects of one's self that one does not wish to share with the general public.

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