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### Stigma management strategies of autistic social media users

#### **Technical Abstract**

#### Background

Research on stigma management strategies in autism relies on questionnaires or experiments, leading to a gap in understanding of how to identify the strategies in naturalistic online interactions. The identification of individual (adapting minority group characteristics) and collective (positively redeveloping the in-group) stigma management strategies in online communication is important for understanding how to improve the quality of social media experiences for autistic users.

#### Methods

Using linguistic analysis and engaging with ethnographic perspectives on relationship management, this article develops a novel approach to the identification of individual and collective stigma management strategies of autistic social media users. We combine online observation and interviews with 34 autistic social media users with a corpus-assisted analysis of their posts, divided into two groups according to regular or limited mentions of autism.

#### Results

We show that posts in the first group focus on information provision and exchange and include markers of shared understanding and community building as part of a collective strategy. Interviews with the authors reveal a strong sense of autistic identity and highlight the importance of staying true to one's specific communicative preferences. Posts in the second group are characterised by tentative language (e.g. 'seem', 'not sure') as a way of avoiding social threats by users who report uncertainty and anxiety about misinterpretation of their messages.

#### Conclusions

We show that autistic social media users have specific preferences in how they communicate and express connection online. However, due to negative experiences of social interactions some do not follow these preferences and instead select linguistic and visual resources that can reduce perceived risks of misunderstanding. We question the claims that the Internet is inherently enabling for autistic users and call for further research and policy effort to ensure autistic sociality rights in all digital environments.

#### 1 Background

Social interactions between autistic and non-autistic people<sup>a</sup> are often characterised by low levels of rapport. While communication is a two-way street, autism is often seen as the cause of misunderstanding even though non-autistic people can be poor at interpreting the thoughts and feelings of autistic people<sup>1,2</sup>. Milton<sup>3</sup> refers to this prevalent inequality as "double empathy problem": autistic people are penalised for not adopting the rules and norms of the non-autistic majority whereas the ineptness of neurotypical people in interactions with autistic people is ignored. Due to the negative stereotypes, and accounts

<sup>&</sup>lt;sup>a</sup> We use the term 'autistic people' instead of 'people with autism' as identity first language is preferred within the autistic community in the UK (Kenny et al., 2016).

of bullying, autistic people are a minority group affected by a stigmatised social status<sup>4</sup>. Research under the umbrella of Social Identity Theory<sup>5</sup> suggests that when a group is stigmatized, group members seek to regain a positive identity through individual and collective strategies<sup>6</sup>. Individual strategies in response to stigma are known as camouflaging and involve dissociating from one's minority in-group (e.g. the autistic community) in order to 'pass' as non-autistic (i.e. 'pass' into a higher status out-group). While camouflaging is not unique to autistic people, autistic camouflaging can be extremely effortful and is linked to poor mental health outcomes<sup>6</sup>. Collective strategies are aimed at positive redevelopment of the in-group (autistic community) through participation in autistic social networks, for example.

Given the impact on psychological wellbeing, understanding how stigma management behaviours are adopted and adapted in online contexts is imperative. Collective strategies of awareness raising and community building have been studied via online discussion groups and blogs<sup>7,8</sup> and on Twitter<sup>9</sup>. Research on online individual strategies is more limited. Jedrzejewska & Dewey<sup>10</sup> compared autistic adolescents' camouflaging online and in face-toface interactions using questionnaires to measure the extent to which individuals consciously employ specific strategies. Camouflaging however is not always conscious<sup>11</sup> which highlights the importance of analysing naturalistic interactions to complement introspection-based sources. In this article we therefore aim to extend current understanding of stigma management strategies of autistic social media users by involving a wider range of research instruments and data sources. Firstly, we use corpus linguistics methods, new to the field of autistic communication, in order to establish patterns and regularities in social media posts by autistic users. Secondly, we show how combining linguistic analysis with interviews and observation, and engaging with ethnographically derived concepts such as *rapport management* and *autistic sociality* can be used to contextualise stigma management strategies to the social media environment.

Stigma management involves rapport management in that it is based on the presentation of self to a community<sup>12</sup>. Spencer-Oatey<sup>13(p13)</sup> proposed that rapport management entails three interconnected components: the management of face, the management of sociality rights and obligations, and the management of interactional goals. The analytical concept of 'social identity face' involves "any group that a person is a member of and is concerned about", ranging from family or friend groups to larger ethnic groups. West and Trester<sup>14</sup> illustrated the centrality of facework to the Facebook practices of commenting, liking, tagging, and to such rituals as sending happy birthday greetings. Similarly, Twitter users adapt language and emojis to suit either face enhancing or redressing actions when they want to protect their own self-image or that of their addressee<sup>15</sup>. However, studies focused on facework alone often disregard how technologies can both enable and restrict one's agency. Bitman<sup>16</sup>, for example, shows how such acts as liking and sharing can limit the collective strategy of disabled users if they fear negative evaluation. Thus, analysis must also consider what Spencer-Oatey<sup>13</sup> refers to as sociality rights and interactional goals.

Sociality rights are defined as "fundamental personal/social entitlements that a person effectively claims for him/herself in his/her interactions with others"<sup>17(p540)</sup>. In addition to perception of their sociality rights people often have specific goals when they interact with others, known as interactional goals. These can be relational (e.g. building solidarity by

claiming common ground) as well as transactional (i.e. task-focused goals such as providing information or enforcing a work protocol) in nature<sup>13(p17)</sup>. These two types of goals are not mutually exclusive – for example, studies have shown that business encounters typically include both transaction- and relation- oriented language<sup>18</sup>. Lack of attention to users' perceptions of sociality rights and interactional goals has led to celebratory claims that online communication allows disabled users to pass as able-bodied<sup>16</sup>. Such claims focus on the ability to present a 'real' self as if the absence of audio-visual cues removes the constraints of disability. Autistic people, however, do not only control potentially exposing information via concealment (by not disclosing autism or avoiding stimming for example) but also by monitoring and adapting linguistic practice to perceived social norms<sup>19</sup>. In order to identify both collective and individual strategies we therefore need to understand interactional 'wants' of autistic social media users and how they may (feel they need to) adapt them to specific contexts.

Research on autistic discursive practices is still predominantly focused on in person interactions (but see<sup>8,20</sup>) and until recently has been dominated by deficit-based representations of autistic people as unemotional and lacking social motivation. Non-clinical research and autistic accounts demonstrate that autistic people build rapport via communicative strategies adapted to autistic<sup>1,21</sup> and non-autistic audiences<sup>22</sup>. Due to the potentially unpredictable nature of social contexts, autistic people may seek comfort in structure through developing routines, focused interests, and everyday scripts<sup>23</sup>. Autistic sociality is therefore described as "interest-based sociality"<sup>24(p173)</sup> where a "generous" assumption of common ground" and "a low demand for coordination" can "ameliorate" interactional challenges if they emerge<sup>1(p916)</sup>. Transactional goals may dominate in such encounters, but this does not mean that relational goals are absent, rather such goals are secondary to shared interests. As Murray points out "In contrast to the notion of reading other individuals' minds in order to guess what they are thinking, or where you stand in relation to them and using language effectively to manipulate others' interest systems, this way of sharing experience is not about presentation of self to self but about a freedom of shared joy and wonder that entirely transcends self"<sup>25(p2)</sup>.

By contrast, autistic people perceive interactions with non-autistic people as driven by relational goals<sup>24</sup> that require attention to face needs and mitigation of potential misunderstandings through language. This is particularly visible in the social media culture which Miller<sup>26</sup> describes as phatic in that it can be dominated by social rather than informational intent. Van Driel and Koteyko<sup>20</sup> have shown how interactions among autistic Twitter users took place via short, information-focused replies while posts addressed to other Twitter users mitigated the risk of misunderstanding through elaborations and justifications. This research demonstrates the importance of a situated as well as a participatory approach<sup>27</sup>. A situated approach rejects "a belief in the intrinsic (im)politeness valence of certain behaviors"<sup>28(p28)</sup> and instead considers how participants themselves define behaviours against the norms of their specific communities of practice<sup>29</sup>. Thus, a direct unmitigated response may not necessarily constitute a face threat in a community of practice formed by autistic social media users but can be part of joint resources for negotiating meaning.

Acknowledging the complexity of digital social practices, we follow Taubner et al.<sup>30</sup> who argue that when studying stigma management online we need to consider not only what participants say but also *where* they choose to communicate and *how*. We therefore focus on the following questions:

- 1. Is stigma management visible at the level of content (what is posted) as well as context of social media posts by autistic users (where they choose to post)?
- 2. Are there any linguistic differences between the posts by autistic users who disclose autism and those who do not?
- 3. How do autistic social media users account for their linguistic and visual choices on social media, including accounts of changing or avoiding specific practices?

# 2. Materials and Methods

# 2.1 Data and Recruitment

We relied on a triangulation of methods combining observation of online activities, social media posts, and qualitative interviews. 34 adult autistic users of Twitter and Facebook were recruited via a research charity using a maximum variation approach<sup>31</sup> by selecting a diverse sample in terms of age, gender, and frequency of social media use from the pool of UK-based respondents to a recruitment advert (Table 1). All 34 participants chose to take part in interviews while only 31 participated in the observation stage. Most participants had a Twitter and a Facebook profile (marked TF in Table 1), 4 participants had a Facebook profile only (F), and 4 participants had a Twitter profile only (T). Frequency of social media use is based on self-reports at the time of recruitment.

It is important to acknowledge that the participants may represent a subgroup that is particularly inclined towards social media use and interaction. Additionally, our sample includes only verbally articulate individuals without intellectual disabilities. These limitations emphasize the need for caution in generalizing our conclusions and highlight avenues for future research to include a broader range of participant characteristics within the autistic community.

The participatory design of the study involved autistic scholars and advocates as collaborators at every stage. This was achieved through regular meetings of our autistic advisory board (reimbursed for their time and expertise) resulting in collaborative decisions that improved accessibility of recruitment and study materials, and clarity of findings. One of the co-authors was a member of the advisory board and another co-author is an autistic researcher.

## 2.2 Ethical approval

The study was approved by our University Research Ethics Committee (Ref: QMERC2020/58) and was conducted in accordance with its ethical procedures.

# 2.3 Methods of analysis

We first observed social media practices noting down mentions of autism or related terms and choices in relation to the placement of posts (RQ1). Linguistic differences between those who mention autism and those who do not were examined through a corpus-assisted analysis of posts (RQ2). We then used interviews (RQ3) to establish participant perspectives.

Methodologically inspired by discourse-oriented online ethnography<sup>32</sup>, observation focused on social media practices, and specifically on differences between practices of users who regularly mention autism and users who do not. In contrast to original netnographies where online cultures were studied in one single and bounded forum, our participants were followed across the platforms and within each platform (e.g. we observed both status updates and contributions to Facebook groups). Twice weekly observations by two (autistic and non-autistic) observers were recorded in fieldnotes per each participant noting down profile information (including changes/editing), topics of discussion, preferences in using visual resources, and frequency of posting. Notes were then compared, and mismatches were discussed and resolved during a meeting. Twitter users were observed for 3 months, whereas Facebook users provided a download of their activities over 3 months<sup>33</sup>. Quantitative engagement metrics were also recorded and analysed elsewhere<sup>34</sup>.

Social media posts (all original posts and all replies) were stored in text format for analysis with corpus linguistic tools of keywords and concordances. Corpus linguistics focuses on "patterns which are otherwise invisible: what is expected, predictable, usual, normal and typical in language use"<sup>35(p155)</sup>. Keywords are words that appear significantly more frequently in one corpus (e.g. tweets by people who disclose being autistic) than would be expected when compared to their frequency in another corpus (tweets by autistic users who don't disclose). We used keywords to establish both the topics discussed and relative frequencies of discourse markers. Following Östman<sup>36</sup> we define discourse markers by their "general behavioural" functions with regard to discourse organisation such as coherence (e.g. *so, but*), the speaker-hearer relation (*you know, I think*) or involvement (expressing attitude such as *lovely*). Keywords were generated with SketchEngine software based on normalised frequency ratio "word W is N times as frequent in corpus X versus corpus Y" with a simple math parameter added to account for the zero problem in divisions<sup>37</sup>. We retrieved the top 100 keywords characterising each data set (Tables 4-7 in Supplementary Material) and used concordances to understand their use in context.

Following observation, interviews helped us gain "insights into the social expectancies and judgements of the people involved"<sup>17(p533)</sup>. Participants were interviewed online via Zoom with an option to fill in a written questionnaire instead. We asked interviewees to comment on intentions behind randomly selected posts, including the use of hashtags and emoji. The analysis was inductive and thematic<sup>38</sup> and led to six themes (detailed in<sup>34</sup>). Interview quotes illustrating three themes relevant for our research questions - Social Norms, Being Authentic, and Control- are presented in the Results. The Social Norms theme focuses on participants' assumptions about expected or popular behaviour among their social circles including observations about 'appropriateness' of linguistic and visual forms. Being Authentic and Control are contrasting responses to such observations of what counts as

appropriate. Being Authentic provides insights into linguistic and visual choices aimed at staying 'true' to one's own preferences in communication despite awareness of non-autistic social norms. The Control theme contains participants' accounts of changing or avoiding linguistic choices in order to follow perceived social norms.

# 3. Results

# 3.1 Observation of profiles and posting activity

Observation at the level of content (mentions of autism) and context (decisions relating to where and for whom to post an autism-related message) led to three groups: (1) those who disclosed autism in Twitter bio<sup>b</sup> and/or regularly mentioned it in their Twitter or Facebook posts; (2) those who did not associate with autism in Twitter bio but occasionally mentioned it in tweets or Facebook posts (e.g. less then 5% of total posts), and (3) those who did not disclose autism in any context. Frequencies of autism mentions can be found in Tables 2-3 (Supplementary material).

The first group engaged in raising awareness by continuously exchanging autism-related experiences with autistic and non-autistic Twitter and Facebook users. Some participants also used the Twitter option of a 'pinned tweet', and/or a variety of visual and linguistic resources in their Twitter bio to mention autism. Most Facebook profiles, and all but one Twitter profiles were public throughout the observation period. Such autism-related posts therefore often constituted a testimonial performance<sup>39</sup> aimed at bringing to light day-to-day injustices encountered by autistic people. The posts of users in the second and third groups were dominated by professional and recreational topics.

## 3.2 Keyword and concordance analysis of social media posts

Tweets and Facebook posts were divided into subcorpora based on the mentions of autism, resulting in 'regular disclosure' corpora (posts by participants in the first group) and 'limited disclosure' corpora (groups two and three as above). Keywords resulting from the comparison of these collections of posts are discussed below.

## 3.2.1 Keywords for 'regular disclosure' corpora

Top of the list for Twitter subcorpus (Table 4 in Supplementary Material) are markers of autistic identity (*autistic, people, autism*) and keywords indicating awareness raising efforts (*language, prefer, stigmatise*). Some of these keywords were used as hashtags to show affiliation with a group<sup>40</sup>. *#ActuallyAutistic* was used to position autistic lives in contrast to media and public portrayals whereas *#AskingAutistics* was used to exchange experiences and advice. Concordances for *autism* and *autistic* show attempts to push back against the stigmatizing conceptions of autism.

Discourse markers (yes, no, yep, ok, fab, ah, just, you know, tbh), mostly used in Replies, occupy a prominent place among the rest of the keywords (Fig 1 in Supplementary

<sup>&</sup>lt;sup>b</sup> Due to the method of data collection specified above we did not have access to information on participants' Facebook profiles.

Material). In contrast to words such as *language* or *autism* which have conceptual meaning discourse markers have a procedural meaning in that they guide the hearer to the interpretation of the utterance<sup>41</sup>. Most of these discourse markers index alignment between interlocutors and signal shared knowledge. Further keywords down the list also index informality such as, for example, *mate, mum, kid*. Pronouns such as *we, our, us* contribute to the picture of community building through showing "that you like or empathize with someone, that you include them in your 'we', your 'in-group'"<sup>42(p135)</sup>.

Analysis of keywords and concordances characterising Facebook posts presents a similar picture. The list includes markers of autistic identity such as *autism, autistic, Aspergers, meltdown*, discourse markers (*yes, yep*), as well as markers of informal interpersonal style, e.g. sign offs *hug, x, xxxx*.

# 3.2.2 Keywords for limited disclosure corpora

Keywords for the Twitter 'limited disclosure corpus' show that discussions centred on topics of sexuality, gender equality, and racism (*man, women, feminism, white, black, racist, race*). Other keywords point to lighter topics of discussion through *love, like,* and *great,* which were used to express positive evaluation of activities and interests. Such uses of *love* (e.g. *love this pic*) keep discussions general, non-threatening, and fitting with the phatic social media culture<sup>26</sup>.

A third subset of keywords include words known as indicators of mitigation<sup>43</sup>: *would, think, might, claim, opinion (in my opinion or for what my opinion is worth), thing (kind of thing, such things),* and sure (*I am not sure*). Concordances show that these words are mostly used as hedges that is linguistic devices that down tone a remark.

Concordances of Facebook keywords also point to hedging through the uses of *think, would, might* and *seem, sound (it sounds like/as though), sort* of, *probably,* and *thing.* These keywords undoubtedly have multiple functions, and some instances indicate uncertainty towards the content of the proposition such as concordance lines 1 and 3 in Figure 2 (Supplementary Material) for the verb *think.* Other instances, however, accompany remarks that hedge potentially over-assertive expressions of opinion (concordance lines 5, and 2 and 4 in Figure 2 where an emoticon further softens the assertion) and therefore represent a mitigation strategy to protect both the hearer's and the speaker's face.

Linguistic research shows that hedging is used in situations where the speaker either has relatively less power, interacts with socially distant persons, or performs face-threatening acts<sup>44</sup>. Twitter is known for ideological battles and is made up of predominantly weak ties<sup>45</sup> so it is not surprising that this group used hedging in discussions around gender and race. On Facebook, however, discussions took place either in less socially distant (e.g. with close ties) and/or less polemic contexts such as local 'neighbourhood groups'<sup>c</sup> or humorous,

<sup>&</sup>lt;sup>c</sup> This was evident from keywords indicating location. These keywords had to be removed from the tables, however, as potential identifiers.

meme-driven groups such as *Cringe Leftist Spotting*. Since these posts rarely contained face threats such as potential for offence or disagreement<sup>d</sup> it is plausible that, as Czerwionka<sup>43</sup> points out, phrases such as *I think* and *it seems* were used to cope with perceived threats due to prior experiences of stigmatisation. The re-use of such phrases may be part of scripted behaviours aimed at reducing vulnerability in social situations when people are not sure they would be understood.

# 3.3 Interview analysis

# 3.3.1 Accounts of the 'regular disclosure' group

The use of discourse markers, pronouns, and hashtags in the posts of participants who discussed autism indicated strong sociality rights and a combination of transaction- and relation-oriented language which we examined further through interviews. In terms of relational goals, participants' accounts included reports about actions and feelings of solidarity and belonging<sup>34</sup> supporting the linguistic evidence in the form of collective pronouns and discourse markers that signal involvement. Elaborating on how they preferred to connect with other autistic users, the participants also commented on the use of 'yes' and concise wording:

It's definitely faster and easier, it's a specific question like, I can't think of an example, have you ever been burnt out? And you can just say, 'Yes', and you're interacting, or you can elaborate if you have time and energy, and it's just an easier way to connect. TF19

I retweet posts which succinctly express a commonly held opinion or truth which the autistic community mostly agree on. This brings us together when it is Liked or further Retweeted. T4

One participant referred to the affordance of commenting as allowing them a greater freedom to join conversations. Contrasting limited sociality rights in mixed neurotype conversations in offline spaces with the flexibility of online interactions the participant said:

...it felt easier to express my opinion for instance, like I didn't feel like I had to go, "Is it okay if I...?" whatever, like I know I would say, "Is it okay if I speak up?" or I would be constantly asking for permission, even though I don't need to. Whereas on social media I'm like, "I'm just going to jump in here and just type a wee comment". TF6

<sup>&</sup>lt;sup>d</sup> It is important to recognise, however, that while mitigation may be a prominent function of some of the keywords, it cannot be infallibly associated with them in all instances. As contextual parameters were not always available from posts and fieldnotes, interviews were instrumental in understanding the relationship between mitigation and vulnerability.

Another participant referred to the decision to disclose autism in Twitter bio as a way of indicating that she would not prioritise facework in her posts:

Which is why I have it in my bio, that I'm honest to the point of brutality because I just thought, "just put it on there because then people know, don't expect nuance, don't expect anything other than the truth"! T2

As the above quote shows, facework was acknowledged but accorded lower importance in interactions on the topics of participants' focused interests (which ranged from autism itself to animal rights and cosplay). Our participants' preference for a direct style which often characterises interest-driven discussions should not be conflated with the inability to recognise and manage face threats (e.g.<sup>46</sup>). Participants were aware of social norms (such as indirectness) and *chose* not to conform as face was not a pervasive concern for them as it is for neurotypical interactants<sup>47</sup>. Instead of maintaining face, staying true to their specific communicative preferences was important:

Not very often, I do sometimes but it's not often that I would use emoji. I often am just straight to the point. TF20

I'm not perhaps as expressive as certain others out there, and I do follow people who tweet in a very different style to myself. TF26

I use emojis when I want to be more emphatic but words seem insincere. A carefully chosen selection of fruit ( ()  $\otimes$  () () () - Gift of fruit) is more meaningful than "Thanks a lot" – as it shows an investment of time. T4

Participants therefore purposefully varied their style according to the perceived audience of their posts. Accounts of Facebook users, for example, show that they felt that faceenhancing posts were needed to accommodate non-autistic friends and family in the network:

But on Facebook, it's also just so that my friends can understand that I do have feelings because a lot of the time, I'm perceived to not have very many feelings, I don't show a lot of empathy and I don't often let on much about my emotions and so very occasionally, it's nice to show that things are going well. TF20

In the quote above the participant indicates that she does not use emotive lexis at the same rate as her non-autistic friends but occasionally chooses to conform to 'phatic' interactions characteristic of social media. Other Facebook users reported negative consequences such as exclusion from online groups when they did not attempt to prioritize relational goals. The following quote shows concerns about equity rights in group interactions when a participant was removed by a moderator:

But I have been ejected from groups for disagreeing with admin, or being direct, even though I am not breaking the rules or being rude. This is socially isolating and unjust, and upsets me. TF11

Overall, the interview accounts support the linguistic evidence of the collective strategy carried out in accordance with autistic preferences in communication and interaction. The

reports of intolerance and negative judgement experienced when acting upon such preference for direct, purpose-driven communication show how it only becomes disabling when socially rejected<sup>48</sup>.

# 3.3.2 Accounts of the 'limited disclosure' group

Autistic social media users who never or rarely mentioned autism invoked the notion of control when discussing motivations behind their online behaviours. Observation showed that these participants also controlled context by choosing a platform or space on a platform that allowed more privacy. Some participants mentioned autism in Twitter profile but not in Facebook status updates, or only posted about autism in closed groups:

Since my dad or my auntie or whoever joined Facebook, I know it's a weird thing, but I think, "Oh, I don't want my mum to get upset. I don't want her to worry too much." I don't want her to see some things, so I post less. I want to be more open about being autistic or autism awareness or whatever, but I feel like I can't because my mum might see. TF13

In this case, the ability to share information about autism is limited by the presence of close ties who subscribe to the negative biomedical view. In line with Goffman's<sup>49</sup> claim that individuals who pass must partition their world into regions via information control, the participant chose to control 'stigma symbols' in some contexts but not others.

Other participants did not disclose autism on any platform. For example, one Facebook and Twitter user did not mention autism during the observation period. On both platforms he primarily (re) shared content by other users on recreational and professional topics. In his interview, the participant foregrounds the importance of control: *"It's great for somebody with autism to be able to interact with lots of people but you've got to control it, you have got to manage it proactively" (TF27)*. Similarly, another participant brought in his past experiences of criticism and rejection during online interactions to account for his limited posting activity:

And I think because of the pace the internet moves, you can very easily be left behind and then, and then if you do a faux pas not everyone is that forgiving so, and it can really make you feel kind of lousy and that's obviously something I would want to avoid personally. TF3

When asked to comment on their choices of specific linguistic and visual forms these participants reported concerns about misinterpretation of their posts, supporting our observation that tentative language might have been used to reduce vulnerability (3.2 above). Participant TF3, for example, is the most frequent user of *I think* in the Facebook 'limited disclosure' corpus, and uses this and other hedges in the interview as well (*I think, kind of, something, would* in the above quote). Other participants reported the vulnerability to be persistent as they aimed to control their language across all situations ('whatever I'm saying', 'to anybody'):

I try to carefully phrase whatever I'm saying, it doesn't come across to anybody that I'm attacking them. [...] I will read 10 times what I want to say and that it doesn't come across abusive or anything like that to anybody. TF25

I guess that yeah, I'm thinking about how it's going to be read and so I try not to make it rude or to mention anything like you shouldn't mention. TF23

While participants in the 'regular disclosure' group spoke about using affective lexis as a deliberate strategy of displaying positive emotions to their friends, this group of social media users designed their posts to be engaging, "positive and uplifting" due to perceptions of limited sociality rights and concerns about misinterpretation. These positively phrased statements, just as those involving the keywords *great*, *love*, and *like* (3.2 above), were used to pre-empt the risk of misunderstanding:

... Yeah, I think that's where autism comes in. I don't go into complex waters, because I can't read the room. I choose to keep it very simple, positive and uplifting, because that goes down well, and I just don't have the social skills to navigate controversy or anything complex. TF15

In a similar vein, emojis were used to make sure that the tone was non-threatening:

So the reason why I use emoji in the second post example that you sent me is because I want to, I only really use emoji when I'm trying to clarify the tone in which a sentence was said. TF10

Given the professional focus of this group (3.1 above) it is possible that the participants carefully balanced what to reveal on Twitter because of potential costs to professional and other intersecting identities. While this is a factor, the interviews show that motivations for controlling content differ from those reported in other studies<sup>50,51</sup>. This is evident through repeated references to stigmatisation and stressful interactions the participants had encountered as autistic people, and the impact this had on their online behaviour:

Yeah I've learnt that the hard way, like as autistic person I've learnt to, I'm sort of masking, even when I'm on Facebook I'm masking, I'm doing my like, my skills of being neurotypical and being polite and everything, even though I'm behind a screen, I'm using those skills. I'm not being my authentic self. TF23

[...] there are about over a dozen people who regularly Like and comment on my posts, and it's like, "Oh, I didn't know that ..." Because obviously having autism, I've grown up with the expectation that people don't like me, because there have been many, many examples of that. TF15

Taken together, the interview accounts shed light on how this group managed context and content to reduce vulnerability associated with both online and offline instances of interaction. In contrast to the participants engaged in the collective strategy who compared perceptions of appropriateness with their own preferences, social media users in this group did not refer to autistic communicative expectations or sociality rights and instead attempted to work out and follow non-autistic social norms<sup>19</sup>.

#### 4. Discussion

Using an innovative approach, this study has combined linguistic methods with observation and interviews in order to provide an in-depth understanding of stigma management in online settings. In relation to the first research question, observation and corpus tools have shown how initial evidence for collective and individual strategies can be gathered on the basis of posting choices and the type of language used. In terms of content, the corpus linguistic focus on "patterns which are otherwise invisible" (Stubbs 2007: 155) has enabled analysis of naturalistic interactions which so far have been side-lined in psychology research that relies on experiments (e.g.<sup>19</sup>) and questionnaires<sup>6</sup>. In particular, and in relation to our second question, the use of keywords as hedges in social media posts provided linguistic evidence for a type of behaviour described in camouflaging research as "deferential engagement"<sup>52(p410)</sup>. Similarly, while research on online autistic communities exists, the keyword analysis documented regularities in how autistic social media users express solidarity and connection for the first time. Furthermore, research on face-to-face interactions has shown that individual strategies represent a psychological safety mechanism that may not always be a conscious strategy to fit in but rather a response to trauma that can arise from lifelong stigma<sup>11</sup>. Our analysis of 'limited disclosure' keywords supports this as it points to a (re)-use of tentative language across different contexts as a way of avoiding social threats.

In terms of our third research question, interviews provided evidence of specific practices aimed at either following autistic preferences or reducing vulnerability and fitting in, and also proved essential for not over- or under- interpreting the linguistic data. Participants in any interaction can claim multiple identities, and frameworks such as conversation analysis can be used to analyse full threads to establish what interactants make relevant in each post (as determined by the analyst). By contrast, the value of our approach lies in establishing the overall differences in language use between the two collections of posts by autistic social media users and relying on interviews to show how participants themselves account for their actions underlying the differences. For example, while the linguistic practices of our 'limited disclosure' group may look like self-censorship common in "publicly private" environments<sup>51</sup> the interviews have shown that for some participants they have little to do with concerns about professional image. Instead, previous negative experiences of both online and offline interactions appear to shape these participants' choice of context and content in systematic ways as they draw on these experiences to justify the 'controlled' use of linguistic and visual forms. The interviews also showed how the use of evaluative language can be either a deliberate choice of displaying affection and enhancing face or an act of "morphing"<sup>53</sup> to an environment that is perceived as potentially hostile.

The study contributes to the growing body of work on autistic sociality<sup>22,54</sup> by showing that the collective strategy of autistic social media users is characterised by specific linguistic and digital practices. We hope that this evidence will help to broaden the literature on communicative styles in online environments and extend "the boundaries of culturally normative sociality"<sup>55(p153)</sup>. However, the feelings of stress and injustice reported by participants when they were excluded from groups for following their preferences indicate that disability and stigma do not simply disappear with online modes of interaction. In contrast to the optimistic statements that "the different symbolic capacity [of autistic

people] was less relevant in the interactional world of the Internet"<sup>56(p140)</sup> further research and policy effort is needed to support autistic flourishing in digital spaces. Future research should focus on "rapport sensitive incidents"<sup>17</sup> between autistic and non-autistic social media users from the intersectionality perspective as people experience neurodivergence and/or marginalisation on multiple axes and identity characteristics. Linguistic methods in such research will be well placed to complement participatory co-design in the field of human computer interaction with the goal of ensuring neurodivergent sociality rights in all digital networking environments.

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No competing financial interests exist.

## **Authorship Contribution Statement**

Author1: Conceptualisation, methodology, and analysis (lead). Author 2: Conceptualization (equal); methodology (equal), formal analysis (supporting); Author 3: Methodology (supporting); writing – review and editing (supporting). Author 4: Analysis (supporting); writing – original draft (supporting). Author 5: Analysis (supporting), Writing – original draft (supporting).

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Gender Identity	Age	Participant Code	
Daily Use			
Female	38	TF8	
Female	30	TF9	
Female	41	TF18	
Female	30	TF19	
Female	30	TF20	
Female	50	T2	
Male	61	TF1	

Table 1. Study Participants

Male	29	TF3		
Male	27	TF26		
Male	58	TF27		
Non-Binary	49	TF5		
Non-Binary	40	TF6		
Non-Binary	44	TF7		
Assigned Male at Birth	48	TF4		
Not Disclosed	58	TF2		
Weekly Use				
Female	27	TF10		
Female	37	TF11		
Female	50	TF12		
Female	39	TF13		
Female	41	TF25		
Male	58	TF14		
Male	37	TF21		
Non-Binary	25	F1		
Monthly Use or Less				
Female	46	TF15		
Female	26	TF22		
Female	45	TF23		
Female	48	F2		
Male	57	TF16		
Male	28	TF24		
Male	66	F3		
Male	44	F4		