A socio-political approach on autistic students' sense of belonging in higher education

Henri V. Pesonen[a]*, Juuso Henrik Nieminen[b], Jonathan Vincent[c], Mitzi Waltz[d], Minja Lahdelma[a], Elena V. Syurina[d], Marc Fabri[e]

[a]Faculty of Educational Sciences, P.O. Box 9, Siltavuorenpenger 5, University of Helsinki, Helsinki, Finland.

[b] School of Educational Sciences and Psychology, University of Eastern Finland, Joensuu, Finland

[c] School of Education, Languages, and Psychology, York St. John University, York, United Kingdom

[d]Athena Institute, Vrije Universiteit Amsterdam, Amsterdam, Netherlands

[e]Leeds School of Arts, Leeds Beckett University, Leeds, United Kingdom

*corresponding author: henri.pesonen@helsinki.fi ORCID: 0000-0002-5806-8572

WORD COUNT (excluding title page & bibliography): 6999

This work was supported by the Erasmus+ Key Action 2: Cooperation for innovation and the exchange of good practices under Grant 2018-1-UK01-KA203-048276

No potential conflict of interest was reported by the authors.

Acknowledgements: We would like thank our research participants for their invaluable insights and research assistant Lauren Ebbes for her excellent interviewing skills.

A socio-political approach on autistic students' sense of belonging in higher education

Although an unprecedented number of autistic students are entering higher education, research focusing on their sense of belonging is scarce. Autistic students' sense of belonging can be jeopardized due to the students' encounters with a network of social expectations, activities, responses and biased attitudes. Using a participatory approach, our objective was to examine autistic university students' perceptions about their sense of belonging whilst at university. The study involved semi-structured interviews with 12 autistic university students and graduates from the Netherlands. Data were analysed using theory-guided content analysis and elaborative coding approaches. Findings indicate that autistic students' sense of belonging is multi-dimensional, fluid, and located within affective, spatial, temporal, social and political contexts. Our findings offer a novel and theoretically robust framework to conceptualise and further understand the sense of belonging. Important practical implications are also given.

Key words: autism, autistic student, sense of belonging, inclusion, university

Introduction

Autism refers to a developmental condition that is characterised by impairments in social interaction and communication, involving restricted patterns of cognition or behaviour, as well as sensory-perceptual difficulties (American Psychiatric Association 2013). Autistic students[1] are entering higher education at an unprecedented rate (Bakker et al. 2020; HESA 2018; Jackson et al. 2018). This student group tends to have difficulties in experiencing belonging in adolescence and emerging adulthood (e.g. Pesonen, Kontu, and Pirttimaa 2015) due to the students' encounters with a network of social expectations, activities, responses and attitudes, many of which can act to prevent students from experiencing a sense of belonging (e.g. Lahdenperä and Nieminen 2020). Research further highlights that autistic individuals are surrounded by neurotypical norms and expectations, which can prevent them from experiencing belonging and may result in poor wellbeing (Milton and Sims 2016). Although social and academic challenges encountered by autistic students and improving ongoing support have been documented (Accardo et al. 2019; Anderson et al. 2019; Cox et al. 2017), research focusing on the sense of belonging for autistic university students is scarce.

To address this research gap, 12 autistic students in the context of Dutch higher education were interviewed to learn about their perceptions of sense of belonging during their studies. Our aim was to understand the factors that are associated with the multifaceted nature of a sense of belonging for autistic students.

[1] In this article, we use identity-first language, as it is preferred by many autistic individuals (Kenny et al. 2016; National Autistic Society 2018).

Theoretical background

Sense of belonging refers to the need for acceptance, connectedness and respect from others in various social contexts (Baumeister and Leary 1995; Hagerty et al. 1992). A sense of belonging is a basic human need (Maslow 1962): people want to be socially connected to other people and part of a group throughout life (e.g. family, friends, other students at university, colleagues at work). Research on the psychological aspects of belonging indicates that people who have close and dynamic relationships with others, and experience a sense of belonging, have better mental and physical health (Baumeister and Leary 1995; Juvonen 2006; Pesonen, Kontu, and Pirttimaa 2015). Conversely, a poor sense of belonging can cause serious ill effects, such as contributing to depression (Baumeister and Leary 1995; Pesonen 2016).

Although a sense of belonging is a fundamental human need, much of the literature around belonging tends to focus on the individual, their self-concept and their capacity to relate to others (Allen et al. 2018; Masika and Jones 2016; O'Keeffe 2013). Such a theorisation of belonging infers an ontological standpoint that suggests belonging can be captured and measured, and is static, in some respects (Slaten et al. 2018; Yorke 2016). For this reason, belonging is often viewed within the field of education in functional and operational terms – as something that can be fostered or fixed through interventions, policies and strategies, particularly among populations 'at risk' of attrition (Freeman, Anderman, and Jensen 2007; O'Keefe 2013), poor mental health (Baumeister and Leary 1995; Pesonen 2016), and lower attainment (Wilson et al. 2015). Students who 'lack' a sense of belonging are often identified as deriving from minority ethnic backgrounds, as economically disadvantaged (Read, Archer, and Leathwood 2003), or as having declared a disability, including autism (Pesonen, Kontu, and Pirttimaa 2015).

Earlier studies on sense of belonging in education have sought to reach beyond the individual by utilising Bronfenbrenner's socio-ecological framework (e.g. Allen et al. 2016, 2018). A recent study by Ahn and Davis (2019) identified four domains of students' sense of belonging among a general university population: 1) academic, 2) social, 3) surroundings and 4) personal space. These authors suggest that all four domains should be recognised as enhancing students' sense of belonging to their institution. Our aim with this paper is to develop and apply a more comprehensive understanding of the multidisciplinary nature of sense of belonging within the context of higher education and as it applies particularly to autistic students. It builds on the analytic frameworks developed by Yuval-Davis (2006) and Antonsich (2010), among others, to suggest a multi-dimensional framework that identifies *affect, place, social relationships* and *political status* as central to the sense of belonging, the practices of belonging, and the informal and formal structures of belonging (Fenster 2005).

The dimensions of belonging in higher education

At the most proximal, belonging has an *affective* dimension which includes a longing or 'desire for becoming-other' (Probyn 1996, 5) and emotional responses to memories, risk and fear (Alexander 2008; Mee and Wright 2009). Antonsich (2010) defines this as an individual experiencing familiarity, comfort, security and emotional attachment and thus 'feeling at home.' However, this emotional aspect of sense of belonging is always socially constructed and negotiated through practice and performance (Mee 2009) and so could be described as 'doing belonging' (Skrbis et al. 2007, 262). Rather than being static, the affective dimension of belonging is an active process that changes and flexes over time and situations, and in response to one's own subjectivity. Contrary to much of the literature, belonging is not something that is accomplished or finally achieved, but something that is *felt* in some situations over others (May 2011). For example, university students might experience a sense

of belonging in the classroom due to their professor's warm and understanding instruction, but in contrast, they might not feel this sense in other aspects of student life.

As suggested by Ahn and Davis (2019), surroundings and *place* play a significant role in one's sense of belonging. Here they identify the university campus, students' living arrangements (e.g. shared accommodation) and local neighbourhood as being important. May (2011) notes that place is first experienced in embodied ways through touch, sight, sound, smell and taste. This is particularly important for autistic students, who can experience sensory differences, including hypo- or hyper-sensitivity to stimuli (Tavassoli et al. 2014). Thus, belonging is never an 'isolated or individual affair' (Probyn 1996, 13) but in any given place – including university – is necessarily also social, relational and intersubjective.

Much of the literature around belonging identifies *social* connections as paramount (Allen et al. 2016, 2018; Ranson and Urichuk 2008). Antonsich (2010) describes the relational dimension of belonging as varying from 'emotionally dense relations' with friends and family members to 'weak ties,' such as occasional interactions with strangers or acquaintances, both of which can be viewed as social ties that can enrich life. Ultimately, belonging proceeds when an individual feels accepted, included, connected and respected by others in various social contexts (Baumeister and Leary 1995; Hagerty et al. 1992). Ahn and Davis (2019) locate both the academic and social domains in relation to caring and supportive relationships with academics (Freeman, Anderman, and Jensen 2007; Gizir 2019; O'Keefe 2013) and with other students, friendships, social life, hobbies, and participation in student clubs and societies (Ahn and Davis 2019). Other studies (Hoffman et al. 2002; Read, Archer, and Leathwood 2003) also report the importance of interrelationships and supportive university climate.

Where Yuval-Davis (2006, 204) departs from the models of belonging in education is in her explicit stance regarding the *politics of belonging*. Here she refers to the 'grids of power relations in society' and is concerned with the discourses that separate populations into 'us' and 'them' (see also Nieminen, forthcoming; Nieminen 2019); such discourses have been shown to be particularly strong in neoliberal higher education institutions, the premises of and activities within which have not been designed for students with disabilities (Dolmage 2017). Through exclusionary discourses underpinned by a rhetoric of sameness, 'to belong' often requires an individual to assimilate to the language, culture, values and behaviour of the dominant group and so mask differences (Yuval-Davis 2006). When unsuccessful, the outcomes can be isolation and alienation (Juvonen 2006; Milton and Sims 2016; Pesonen, Kontu, and Pirttimaa 2015) this can be seen in exclusionary discourses which are, at times, internalised by disabled students themselves (Nieminen 2019). Earlier studies have reported that students in higher education might feel stigmatisation amongst their peers (Kendall 2016). However, May (2011) argues that a 'feeling of not belonging' need not always be experienced negatively, and that the tension between wanting to belong and wanting to be different from others can also be productive (Lahdenperä and Nieminen 2020). This resonates strongly with Ahn and Davis's (2019) final category of personal space, which they take to mean independence and the courage to be oneself.

Research objective

Although recent studies have mapped out important factors for university students' sense of belonging (e.g. Ahn and Davis 2020; van Gijn-Grosvenor and Huisman 2020), there has been a scarcity of research focusing on a more comprehensive understanding of the multidisciplinary nature of sense of belonging within the context of higher education, specifically amongst autistic university students, who might need specific accommodation to

experience a sense of belonging. To fill this research gap, the aim of this study is to examine sense of belonging for autistic university students by focusing on participants' perceptions. Twelve university graduates and students from The Netherlands were interviewed about their perceptions on the sense of belonging to address the following aims:

1. To examine factors associated with autistic university students' sense of belonging
2. To explore opportunities to reconceptualize the sense of belonging in a higher education context

Examining autistic students' views on the sense of belonging can provide significant insights into the services and pedagogies required to enhance students' sense of belonging at university. We are particularly interested in hearing what students have to say, as research too often focuses on hearing perspectives of academics on improving practices in higher education.

Methods

Context of the study

University education in the Netherlands consists of three-year Bachelors programmes and one- or two-year Masters programme. Typically, students enter university at the age of 18-19, and those who continue to a Masters degree typically do so immediately after completing their undergraduate degree. Educational approaches differ between institutions as well as between departments due to a high degree of institutional autonomy. That said, universities are seen by Dutch students as highly competitive and students frequently express that they feel stress and pressure to earn high marks (Kuipers 2019).

Accommodation for disabled students are encouraged, although access to needs assessments and adaptations is diagnosis-led, rather than needs-led (ECIO 2020). Therefore, students must officially report their diagnosis to receive necessary help (e.g. extra time for exams). The Netherlands has signed the UN Convention on the Rights of Persons with Disabilities (United Nations 2016) in 2016, and whilst most Dutch universities have institutional inclusion policies and dedicated support staff, such as academic advisors, disability services and psychologists, inclusive higher education remains a challenge (ECIO 2020; Researchned 2019).

Furthermore, Dutch students navigate a social environment that includes culturally specific expectations regarding 'university life': students typically attend university directly after secondary education, move to live near their campus, and take an active part in both organised and informal student activities. This can include membership in exclusive student organisations similar to fraternities or sororities, membership in student clubs and organisations on campus, and going out for food, drinks, dancing or nightclubbing, as well as academic pursuits. There is a tendency for the relationships formed at school or university to be the basis of lifelong friendship groups in the Netherlands, but students who do not easily fit within such groups, such as international students, BAME students, first-generation students and disabled students, can feel shut out. This can also have practical implications: for example, student rentals and study tips are typically passed along through circles of friends (Erasmus Student Network et al. 2019; Kleinjan 2018).

Participants

Twelve autistic adults (6 female and 6 male) from the Netherlands participated in the research. The data were collected as part of a European research project about improving existing support at university (see www.imageautism.com/). Inclusion criteria for this study

included (1) participants had received a formal diagnosis of an Autism Spectrum Disorder (ASD), including Asperger's Syndrome or Pervasive Developmental Disorder, from a health or educational professional; and (2) they were either close to graduation or had graduated from university within the last 10 years.

The participants' ages ranged from 21 to 34 (mean age = 26.00, SD = 4.18). Of the 12 participants, five were to graduate with a university degree within approximately 12 months (2 bachelor's degree, 2 master's degree and 1 PhD), and six were graduates (2 bachelor's degree and 4 master's degree). One participant had terminated their studies close to graduation. Detailed participant descriptions are outlined in *Table 1*.

[Table 1 here]

The participants were purposefully recruited using snowball sampling. The researchers used their professional networks to disseminate information about recruitment of interviewees for the study. Both the researchers and their networks used social media, Internet forums, email and flyers in university careers advice or support offices when disseminating information about the research.

Procedure

Institutional ethics approval was granted by the ethical review board, and written informed consent was obtained from each participant prior to data collection. Participation was voluntary.

The interview protocol was developed in collaboration with autistic students and graduates who were not interviewed for the current study. The interview questions were first drafted by the researchers. The corresponding author then organised two official co-design meetings with the students and graduates. These meetings were based on the principles of

participatory research design (Kemmis and McTaggart 2005). The draft interview questions were the starting point for discussions and an iterative process of creating the interview protocol. The participatory research cycle also included receiving feedback from the wider autism community after the first co-design meeting. This was followed by a further development of the interview protocol during a second co-design meeting, after which the protocol was pilot-tested in an interview with an autistic person who was not included in the actual study. The pilot interview resulted in feedback from the interviewee, and based on their insights, the protocol was finalised. The interview questions covered factors associated with a sense of belonging at university.

Prior to interviews, participants completed a screening questionnaire that provided information about their individual characteristics and preferences regarding interview location and sensory needs, whether to bring a support person to the interview, and possible compensation for travel costs, for instance. Based on this information, semi-structured interviews were conducted in distraction-free environments in a location of the participant's preference. The same interview protocol was followed in each interview. All interviews were audio-recorded. Interview duration ranged from 35 to 75 minutes.

Data analysis

Theory-guided content analysis (Schreier 2012) and elaborative coding (Auerbach and Silverstein 2003) approaches were utilised for analysing the qualitative interview data. To ensure comprehensive qualitative data reporting, the COREQ 32-item checklist was followed ('consolidated criteria for reporting qualitative research') (Tong et al. 2007, 352).

First, interviews were transcribed verbatim, anonymised and, if required, translated into English so that all researchers were able to work with the raw data. The translations were completed with great care to ensure correct meanings by researchers who were fluent in both

languages. Transcriptions were imported into Atlas.ti 8 software for coding and analysis that consisted of three phases. In the first phase, the data were read multiple times with reading being guided by the four domains of belonging (Ahn and Davis 2019). This was followed by the data being coded under the domains using the coding scheme following the main domains description by Ahn and Davis (2019) (see *Table 2*).

[Table 2 here]

In the second phase, the data were further analysed within each domain, continuing the analysis in accordance with the coding scheme and also enabling 'data-driven' (Schreier 2012) themes to be identified related to sense of belonging (see *Table 3*).

[Table 3 here]

In the third phase of the analysis, the dimensions of affect, place, social relationships, and political status guided by a theory-based elaborative coding process (Auerbach and Silverstein 2003; Saldana 2016). The pre-coded material was coded again through the four theoretical lenses of the dimensions of sense of belonging (Yuval-Davis 2006). This process was conducted separately for each of the dimensions by using the concepts related to each of them (see *Table 4*). The third phase of the analysis was repeated until the researchers had gained a comprehensive understanding of how each of the four dimensions of belonging was reflected in the dataset.

[Table 4 here]

For the purposes of trustworthiness, researcher triangulation (Patton 2015) and peer-debriefing (Su'o'ng and Nguyen 2008) were utilised throughout the analysis to discuss the codes and themes. Three data validation meetings (Given 2008) also took place at which the analysis processes and emerged themes were discussed until consensus was reached. Further,

the Atlas.ti 8 software aided the systematic analysis of the data and the abstraction, through which the assigned codes were assessed in relation to other coded extracts, as well as the entire data set. The comment feature of the software also helped to refer to the notes that had been taken during the research process.

Findings

According to the interviews, students' belonging comprised 11themes, which were reinterpreted through the four dimensions of belonging. These are outlined below. The findings are reinforced with original data extracts which are identified with participant codes outlined in *Table 1*.

Affect

Recognising own strengths and preferences

Participants were able to recognise their individual characteristics and preferences as strengths, suggesting that the participants did not long to be otherwise and experienced a sense of belonging either despite or because of these patterns of strengths. For example, 'I'm really good at some things, and not so good at other things. Where I'm good is, for example, detail-oriented topics.' (5). Another interviewee continued:

> Oh, yeah, I think I was able to concentrate on specific subjects that I really liked. And it was kind of fruitful for me in terms of research. Also I...excelled in writing…because I don't like speaking. I always preferred writing, from a really young age. And I think that's why I'm kind of naturally talented maybe. It feels very weird! (6)

Knowing their strengths also appeared to increase their involvement with other students who shared similar interests, which supported sense of belonging. For example:

> Choosing my course was closely linked to what I found interesting. And I noticed that once I was occupied with it then, the things that matched my interests, and also meeting people who had the same interests, then I became very enthusiastic and could really get going. And that really helped me to make friends and really, also with the course, to get totally involved. So, in that way it was very helpful. (2)

Social relationships

Supportive academics

Students' warm and caring relationships with professors, lecturers, researchers and mentors enhanced their sense of belonging. One student described that '…professors were very understanding when I missed deadlines, which I'm very grateful for. And they also gave me the option of like presenting or not presenting if I didn't want to. Which is also super nice.' (6) Another student mentioned how her teacher had faith in her: 'He pushed me through the final year of the course and helped with sorting out my marks so that I could finally get my diploma.' (1) Another participant remarked how his Masters course went faster as he 'had a really relaxed course coordinator.' (4)

Helpful mentors

Findings further showed that participants thrived on relationships with mentors that enhanced their sense of belonging. Mentors included personal academic coaches, study advisors, internship supervisors, psychologists, and guidance counsellors. Students trusted the mentors, and had open and understanding relationships with them. Mentors listened to students and personalised their instruction, which supported sense of belonging. For example, 'I had a

counsellor that I spoke with sometimes… He was a good partner for dialogue. It could be good that he was the only one who knew.' (12) Another participant described:

> I got some extra help from the study advisor with planning and organising my studies. It wasn't going well for me at the time at all, I had very regular meetings with her, to monitor how my studies were progressing and to intervene in time if my grades were going down. (10)

Interactions with peers

Some participants had friendships that supported their belonging. For example, they made friends when they started university: 'I really got on well with my classmates. So, what that meant, from the moment I started university, I began to make some really good friends and yes, soon I had a social life that I was quite happy with.' (2). Another participant had also spent time 'just with two [students] with any regularity.' (3) and one said he was '…part of a group of eight friends who are students.' (5)

However, many participants had limited or non-existent interactions with fellow students, for example: 'I don't fit so well with my fellow students.' (7), 'I had little contact with my fellow students.' (9), and 'Not at all [spending time with other students]. I found it scary.' (1). The interviews further showed that the participants had 'anxiety about strangers' (10) and spending time with fellow students 'cost too much energy.' (9) Being socially isolated sometimes also led to substance abuse related to hopes for meeting people; for example, 'I drank heavily in my favourite pub during the last two years. But I didn't see any of my fellow students there.' (1)

Findings further showed struggles in social situations. For example, 'I am not so strong socially, so that was always a disadvantage for me. And I also notice that for example

when we're working in a group together, there are a lot of challenges for me.' (7) Often, students avoided face-to-face social situations: 'I don't speak to people most of the time apart from online…I don't know how normal people make friends….And it's like: you start talking to somebody, but then you… Something always goes wrong.' (6) The previous extracts also indicate that the students seemed to have a lack of social instructional support, which hindered them from making meaningful social connections and feeling belonging. Since participants had little social interaction and a lack of social participation support, some reported that 'I didn't really have a student life.' (12), 'I have a lot of anxiety about how to work with unknown people' (10), and 'I was heavily depressed.' (1) Some participants also found it upsetting to be isolated from fellow students, although they also enjoyed their own company: 'I like being alone, but I don't like being so separated from other humans.' (6).

Friends outside university

Friendships outside the university appeared to be connections with something familiar, and students wanted to maintain those. For example, some participants reported that they had 'Three friends from high school.' (8) and '…a pair of good friends [outside university], who are still friends.' (12) The interviews further indicated that it was easy to be oneself – for example, there was no need to 'mask' their autism – around those familiar people, who, they had known for years. For example, 'I had a large circle of friends within which there were similar people.' (4). In sum, both student and non-student friendships were important, and the interviews showed that where present, these relationships were also warm and positive.

Place

Shared housing near university

Most of the participants lived nearby or in the same geographical location as the university, which facilitated belonging. As one student stated: ‘I live here, so you don’t sit around on the couch in the evenings, there are usually fun things to do.’ (13) Further, students who lived with other students said that student housing enabled them to experience belonging. Some students did not even wish to make friends with the people from the same course, but those living with other students from different fields became friends in shared housing. For example: ‘I found my fellow students there [in the same course] less interesting, and actually had no interaction with them, but instead with flatmates [I connected with].’ (3) Furthermore, students became friends with their flatmates and did things with them, which further widened their social circles. For example, ‘…I had a pretty good social life. In my student house I had a good time with people.’ (4) and ‘I do a lot with my flatmate. He’s a nice guy.’ (13)

Broader geographical location

Some participants lived away from the university town, which appeared to hinder the formation of sense of belonging. These students were not in the immediate neighbourhood or in shared student accommodation, and that made them physically isolated from student life and belonging. For instance: ‘I didn’t really have a student life. I didn’t live in a student flat.’ (12) Furthermore, traveling to the campus from further away can be already tiring and reducing the energy for social participation: ‘I had to travel by train, and I was already tired when I arrived.’ (9) Overall, it appeared in the participant data that not living with other students, as well as living further away from the immediate university and student life geographical location were barriers to students’ sense of belonging.

Going out

Participants went out to spend time with their friends, which facilitated belonging. For example: ‘I could hang out for hours with people in cafes’(11), which was considered

important, as going out and spending time with friends '…gave me energy.' (12), continued the same participant. One student reported that he went to '…one pub where the music wasn't too loud, with some friends that I know well enough to know that a very nice conversation will follow.' (8) Another participant reported that he would go out with friends he had made at university once a week '…with a group of 7 or 8. A lot of times we just sit around drinking beer. I do sport on Wednesday, and I usually speak with anyone who's around.' (13)

In sum, although most participants reported that they had friends or they had made friends at university, and that this helped to widen social circles and enhanced sense of belonging, these friendships were not a significant theme across all the participant interviews. Students often reported having limited interactions with their fellow students.

Inaccessibility of teaching practices

Inaccessibility of teaching practices was connected with poor sense of belonging in various interviews. Such inaccessibility reflected in teachers' practices that were not designed for the diversity of students. For instance, the physical environments at university were connected with overwhelming sensory overload, distracting students and preventing them from feeling comfortable in the university environment, which is an important factor in order to experience belonging. For example, one student explained how working in the same space with other students caused problems for them:

> The combination of lights, people whispering next to me, but then me also trying to take notes. The lights buzzing, the computer making this static kind of noise. It was, I still kind of feel horrible thinking about it. (6)

Inaccessible teaching practices within the physical learning environments were also connected with students feeling that they did not 'fit in'. For example: 'I can't pay attention in class, and

I can barely follow spoken instructions. Therefore, for me, lecture sessions are almost useless.' (3). Often, the students saw group work as something they could not fit into. A student elaborated on the inaccessibility of group work:

> …it is stupid that so many parts of courses are done in the form of group work, through which autistic students are always disadvantaged. Group work is really, really completely superfluous, 'but it's so nice.' Not nice. Stupid! (1)

The participants also perceived that they could not get a hold of their teachers. For example:

> Assembling scientific evidence, collecting articles, and over time pulling it all together…went really well. But yeah, you know, you have to finish it, and then there's a presentation to do about it, and the lecturer is never around for that sort of thing. (4)

Politics of belonging

University climate

The interviews further showed that in some university climates, autistic students had a strong sense that they could be themselves, and this fostered their sense of belonging. In such an accepting climate, there were presumed to be many other autistic students. For example:

> 'Well, let's be honest… I studied astronomy and maths. I wasn't the only autistic… I almost think the assumption was that you had it and you should have said if it wasn't so. It was so that in our class there was an autism-normatism instead of heteronormatism.' (8)

Even in programmes where autistic students were not present in large numbers, some students had found an accepting climate in which the other students shared a similar mindset that supported experiencing belonging. One stated: 'The people at [theatre school] were

people I could really connect with.' (12) On the contrary, some felt that they studied in a university climate in which '…there was not enough room for any kind of individual problems.' (1) This led them to feel that they could not be themselves, which in turn, prevented them from feeling connected to the social setting.

Stigma

University climates that did not allow the students to identify themselves as autistic led to hiding their unique characteristics of autism, preventing them from feeling accepted. Participants were afraid that they would be rejected by fellow students and academics if they stopped masking their autistic characteristics. For example: 'I have anxiety that I won't be accepted, or maybe rejection [by peers and academics].' (7) Other interviewees continued by stating:

> I tried to come across as as normal as possible, especially when I was with people who didn't know my diagnosis. It wasn't about specific situations at university, but the fact that it is always hard to accept if you are "different" and trying to hide that. (10)

> I think in order to be seen as a competent student, I have to hide a lot of my natural inclinations… So I just have to suffer through it. Sometimes when I was a [subject] student I would leave the classroom and I would cry. And then I would come back. It was torture. (6)

Discussion

This study examined sense of belonging for autistic university students by focusing on their perceptions. The findings offer a novel and theoretically robust framework to conceptualise and further understand the sense of belonging of autistic students in higher education.

Reaching beyond the individual, and psychological, definitions of belonging that are often utilised in higher education studies (e.g., O'Keeffe 2013), we drew on the approaches of Ahn and Davis (2020) and Yuval-Davis (2006) to reframe autistic students' sense of belonging through a wider socio-political lens. Thus, rather than framing belonging as an individual phenomenon that can be captured, measured and nurtured among 'at risk' groups, we see it as multi-dimensional, fluid, and located within affective, spatial, temporal, social and political contexts.

First, we analysed the dimensions of *affect*, *social relationships* and *place* of belonging; students' sense of belonging was constructed in the interplay of these dimensions, rather than simply being identifiable as a psychological process of the individual students. Affect is recognised as being fundamental to autistic students' sense of belonging. Students related how subjective feelings and emotional responses form a substantial part of belonging as they described the performative nature of negotiating their autistic identities at university. Whilst this affective dimension typically includes a desire or longing to be other (Probyn 1996), our sample reported otherness as a positive identity. As noted in earlier studies on university students' sense of belonging, social relationships both supported and hindered belonging to the university setting (Freeman, Anderman, and Jensen 2007; Gizir 2019). Social relationships that facilitated a sense of belonging tended to be emotionally dense (Antonsich 2010): these included relationships with family and usually a small number of close friends, but also included weaker social ties such as mentors, academic staff and other friends. Where our findings diverge from other studies on belonging in higher education (Hurtado and Carter 1997; Lahdenperä and Nieminen 2020) is in suggesting that students actively chose to belong or not in various social contexts, both inside and outside the university setting. This indicates a level of agency and self-sufficiency that might be distinct from other non-autistic students. Crucially, none of the participants described what would be considered a fully 'typical' Dutch

student life, such as being highly active in organised student activities or having a varied and exciting student social life. This suggests unexplored territory regarding why autistic students did not choose these activities, or whether they felt shut out by organised groups.

The spatial dimension of place is central to any conception or experience of belonging (Ahn and Davis 2019). For university students the campus, living arrangements (e.g. shared accommodation) and local neighbourhood are all important spaces where they can potentially belong. Place is always embodied, but our data suggest that place was experienced differently by autistic students who referred to their hypo- or hyper-sensitivity to stimuli (Tavassoli et al. 2014) within the built environments. Thus, universities must be aware of the capacity that non-human objects can afford in enhancing or limiting students' belonging, and strive to design buildings and environments where autistic students are not excluded on this basis.

Importantly, our findings also suggest that belonging is also political, insofar as discursive boundaries exist to indicate who is 'in' and who is 'out' (Antonsich 2010; Yuval-Davis 2006). Illustrative of the politics of belonging, students described the 'university climate' as implicitly communicating the extent to which they belonged there. However, this sense is also informed by *affect, social relationships, and place* -- all of which demarcate what Yuval-Davis calls the 'grids of power relations' in a university. For instance, the students' desire to mask their autistic identities is a political decision precipitated by a fear of stigmatisation (Kendall, 2016) and the exclusionary discourses it entails. Feeling that one must perform an inauthentic identity when with other students can lead to feeling alienated from self and others, and if the performance is found lacking, may not lead to the desired social inclusion. Despite legislation that assures equal rights to education for Dutch students in higher education (Researchned 2019), our participants did not always feel they had equal opportunities to participate and so, at times, found themselves outside the boundaries of sense

of belonging. For instance, the issue of the students being unable to study in the same learning environments and benefit from the same teaching practices as everyone else becomes a political issue regarding the inaccessibility and the exclusionary discourse it produces (Dolmage 2017; Nieminen, forthcoming; Nieminen and Pesonen 2020; Nieminen 2019). Attention to creating inclusive study environments is needed, and in many countries is mandated by law, although universities may need help to understand the access needs of neurodiverse students. Including autistic students in access audits or design discussions are examples of positive responses to this issue. Furthermore, "students as partners" models (see Mercer-Mapstone et al. 2017) could be utilised in designing inclusive higher education with students rather than for them (e.g. autistic students are active participants in the design process of teaching methods that enhance belonging).

The particularly pressured nature of Dutch higher education may make some issues difficult to address (cf. Kuipers 2019). A focus on increasingly neoliberal competition and high achievement, which begins early in the school years, can mean interpersonal skills and aptitudes are underdeveloped for all students, with particular impacts on those with autism. Academics may be able to help by scaffolding potential problem areas, such as group work. For example, defining and rotating roles within groups and adding extra tutorial support when needed can improve access to and comfort within group work. Universities can also support student organisations to be more inclusive, and ensure that the needs of students who need additional support are met. Disability support and student advice staff, as well as disabled students themselves, can also be crucial resources for course designers and policymakers.

Our findings also showed that students experienced *productive* non-belonging to the university setting (cf. Lahdenperä and Nieminen 2020; May 2011). Such student perceptions could also indicate internalised exclusive discourses that prevent students from experiencing a

sense of belonging in their immediate university environment, however. Thus, future studies should address the multifaceted and discursive nature of non-belonging in relation to autistic students, and the role of inaccessible practices that produce such *otherness* (cf. Nieminen and Pesonen 2020; Nieminen, forthcoming; Nieminen 2019).

The notion that students did not like 'being so separated from other humans' holds a lesson not only for higher education practitioners, but for researchers as well. We have argued that the construction of autistic students' belonging is not simply an individual phenomenon but a political one; the same can be said of autism research in the field of higher education. Autism research itself constructs boundaries around 'them,' the autistic students, while participating in the same inclusive or exclusive discourses as did the students in our study. Thus, we call for self-reflective spaces in the field dominated by individual and operational approaches on sense of belonging. While recent important contributors have aimed to widen the functional and operational views on sense of belonging (e.g., Allen et al. 2016, 2018), a research gap still exists where research on belonging and disability studies intersect. The self-reflectivity of research communities towards their own political actions through research is especially crucial while working with underrepresented groups such as autistic students. As Nieminen and Pesonen (2020) note, there is a risk to researching and designing learning environments *for* disabled students, rather than *with* them; similarly, research can either include or exclude.

Limitations and future research

This study has its limitations. First, our analytical approach has conceptualised the dimensions of belonging as separate entities; yet, as Yuval-Davis (2006) and Antonsich (2010) both note, these dimensions are intertwined and are only constructed in relation to each other. Future studies could be more sensitised to the interplay of these various dimensions of belonging in

their analysis. Second, the reader has to be cautious with regard to the transferability of the findings: there is variation even in our small sample in relation to sense of belonging. Thus, there is no 'autistic perspective' on the sense of belonging, but range of experiences within the autistic population in higher education. This should be kept in mind while interpreting and transferring the results to other autistic communities and individuals. Third, a major limitation in our study is linked to its participatory approach, as the students themselves were not provided with an opportunity to comment on the findings and interpretations. Although the research project was built on participatory approaches (e.g. autistic students participated in developing the interview protocol) (see www.imageautism.com), richer interpretations might have emerged from engaging our participants at all stages of the research, including analysis (Vincent 2017).

In this study, we have reframed autistic students' belonging as a socio-political construct. Our approach provides a novel and theoretically robust framework to study autistic students' perceptions. Further, the current study outlines several important factors to be considered while designing more inclusive social and physical environments for autistic students, which undoubtedly has the potential to support all university students. However, it is time to reach beyond seeing this as external and othered 'autistic knowledge' that would only benefit autistic students - and thus taking part in the very exclusive discourses we have described in this study (Nieminen, forthcoming; Yuval-Davis 2006). Listening to the autistic community in how to design for inclusive higher education for all offers an important direction for future research and practice.

References

Accardo, A. L., S. J. Kuder, and J. Woodruff. 2019. “Accommodations and Support Services Preferred by College Students with Autism Spectrum Disorder.” *Autism* 23 (3): 574–583.

Ahn, M. Y., and H. H. Davis. 2020. “Four Domains of Students’ Sense of Belonging to University.” *Studies in Higher Education* 45 (3): 622–634.

Alexander, C. L. 2008. “Safety, Fear and Belonging: The Everyday Realities of Civic Identity Formation in Fenham, Newcastle upon Tyne.” *ACME: An International Journal for Critical Geographies* 7 (2): 173–198.

Allen, K. A., and T. Bowles. 2012. “Belonging as a Guiding Principle in the Education of Adolescents.” *Australian Journal of Educational & Developmental Psychology* 12: 108–119.

Allen, K. A., D. Vella-Brodrick, and L. Waters. 2016. “Fostering School Belonging in Secondary Schools Using a Socio-Ecological Framework.” *The Educational and Developmental Psychologist* 33 (1): 97–121.

Allen, K., M. L. Kern, D. Vella-Brodrick, J. Hattie, and L. Waters. 2018. “What Schools Need to Know about Fostering School Belonging: A Meta-Analysis.” *Educational psychology review* 30 (1): 1–34.

American Psychiatric Association. 2013. *Diagnostic and Statistical Manual of Mental Disorders: DSM-5TM*. 5th ed. Washington, DC: American Psychiatric Association.

Anderson, A. H., J. Stephenson, M. Carter, and S. Carlon. 2019. “A Systematic Literature Review of Empirical Research on Postsecondary Students with Autism Spectrum Disorder.” *Journal of Autism and Developmental Disorders* 49 (4): 1531–1558. doi:10.1007/s10803-018-3840-2.

Antonsich, M. 2010. “Searching for Belonging - an Analytical Framework.” *Geography Compass* 4 (6): 644–659.

Auerbach, C. F., and L. B. Silverstein. 2003. *Qualitative Data: An Introduction to Coding and Analysis.* New York: New York University Press.

Bakker, T. C., L. Krabbendam, S. Bhulai, and S. Begeer. 2020. ”First-Year Progression and Retention of Autistic Students in Higher Education: A Propensity Score-Weighted Population Study.” *Autism in Adulthood*. doi:10.1089/aut.2019.0053.

Baumeister, R.F., and M. R. Leary. 1995. “The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation.” *Psychological Bulletin* 117: 497–529.

Bronfenbrenner, U. 1977. “Toward an Experimental Ecology of Human Development.” *American Psychologist* 32: 513–531.

Bronfenbrenner, U. 1979. *The Ecology of Human Development: Experiments by Nature and Design.* Cambridge, MA: Harvard University Press.

Cage, E., and J. Howes. 2020. “Dropping out and Moving On: A Qualitative Study of Autistic People’s Experiences of University.” *Autism*: 136236132091875. doi:10.1177/1362361320918750.

Cox, B. E., K. Thompson, A. Anderson, A. Mintz, T. Locks, L. Morgan, and A. Wolz. 2017. “College Experiences for Students with Autism Spectrum Disorder: Personal Identity, Public Disclosure, and Institutional Support.” *Journal of College Student Development* 58 (1): 71–87. doi:10.1353/csd.2017.0004.

Dente, C. L., and K. Parkinson Coles. 2012. “Ecological Approaches to Transition Planning for Students with Autism and Asperger's Syndrome.” *Children & Schools* 34 (1): 27–36.

Dolmage, J. T. 2017. *Academic Ableism: Disability and Higher Education*. University of Michigan Press.

ECIO. 2020. Contributing to a Successful Transition from Secondary to Higher Education for Students with Support Needs. Accessed 17 August 2020. https://www.ecio.nl/wp-content/uploads/sites/2/2020/04/003ENG-ECIO_Handreiking_succesvolle_overgang_vo_ho_EN.pdf

Erasmus Student Network, Landelijk Studenten Vakbond and Interstedelijk Studenten Organisatie. 2019. "Annual International Student Survey 2019." Accessed 5 August 2020. http://www.iso.nl/wp-content/uploads/2019/06/AISS_2019_EN.pdf

Fenster, T. 2005. "The Right to the Gendered City: Different Formations of Belonging in Everyday Life." *Journal of Gender Studies* 14 (3): 217–231. doi:10.1080/09589230500264109.

Freeman, T. M., L. H. Anderman, and J. M. Jensen. 2007. " Sense of Belonging in College Freshmen at the Classroom and Campus Levels." *The journal of experimental education* 75 (3): 203–220. doi:10.3200/JEXE.75.3.203-220.

van Gijn-Grosvenor, E. L., and P. Huisman. 2020. "A Sense of Belonging among Australian University Students." *Higher Education Research & Development* 39 (2): 376–389.

Given, L. M. 2008. *The SAGE Encyclopedia of Qualitative Research Methods*. Thousand Oaks, CA: SAGE Publications Inc.

Gizir, S. 2019. "The Sense of Classroom Belonging among Pre-Service Teachers: Testing a Theoretical Model." *European Journal of Educational Research* 8 (1): 87–97.

Hagerty, B.M.K., J. Lynch-Sauer, K. L. Patusky, M. Bouwsema, and P. Collier. 1992. “Sense of Belonging: A Vital Mental Health Concept.” *Psychiatric Nursing* 3: 172–177.

HESA (Higher Education Statistics Agency). 2018. “UK Domiciled Student Enrolments by Disability and Sex 2014/15 to 2017/18.” Higher Education Statistics Agency. Accessed 10 October 2019. https://www.hesa.ac.uk/data-and-analysis/students/table-15

Hurtado, S., and D. F. Carter. 1997. “Effects of College Transition and Perceptions of the Campus Racial Climate on Latino College Students’ Sense of Belonging.” *Sociology of Education* 70 (4): 324–345.

Jackson, S. L., L. Hart, and F. R. Volkmar. 2018. “Preface: Special Issue – College Experiences for Students with Autism Spectrum Disorder.” *Journal of Autism and Developmental Disorders* 48 (3): 639–642. doi:10.1007/s10803-018-3463-7.

Juvonen, J. 2006. “Sense of Belonging, Social Bonds, and School Functioning.” In *Handbook of Educational Psychology,* edited by Patricia A. Alexander and Philip H. Winne, 655–674. 2nd ed. New York: Macmillan.

Kemmis, S., and R. McTaggart. 2005. “Participatory Action Research: Communicative Action and the Public Sphere.” In *The Sage Handbook of Qualitative Research*, edited by N. K. Denzin, and Y. S. Lincoln, 559–603. Thousand Oaks, CA: Sage Publications Ltd.

Kenny L, C. Hattersley, B. Molins, C. Buckley, C. Povey, and E. Pellicano. 2016. “Which Terms Should Be Used to Describe Autism? Perspectives from the UK Autism Community.” *Autism* 20 (4): 442–462.

Kleinjan, G-J. 2018. "De wereld van de student is ingrijpend veranderd, het is er niet leuker op geworden." Trouw, 18 December. Accessed 5 August 2020.

https://www.trouw.nl/nieuws/de-wereld-van-de-student-is-ingrijpend-veranderd-het-is-er-niet-leuker-op-geworden~b8db5fc8/

Kuhn, J., K. Ford, and L. S. Dawalt. 2018. “Brief Report: Mapping Systems of Support and Psychological Well-Being of Mothers of Adolescents with Autism Spectrum Disorders.” *Journal of Autism and Developmental Disorders* 48: 940–946. doi:10.1007/s10803-017-3381-0.

Lahdenperä, J., and J. H. Nieminen. 2020. ”How Does a Mathematician Fit in? A Mixed-Methods Analysis of University Students’ Sense of Belonging in Mathematics.” *International Journal of Research in Undergraduate Mathematics Education* 1–20. doi:10.1007/s40753-020-00118-5.

Masika, R., and J. Jones. 2016. “Building Student Belonging and Engagement: Insights into Higher Education Students’ Experiences of Participating and Learning Together.” *Teaching in Higher Education* 21 (2): 138–150.

Maslow, A. 1962. *Toward Psychology of Being*. Princeton, NJ: Van Nostrand.

May, V. 2011. “Self, Belonging and Social Change.” *Sociology* 45 (3): 363–378.

Mee, K. J. 2009. “A Space to Care, a Space of Care: Public Housing, Belonging, and Care in Inner Newcastle, Australia.” *Environment and Planning A* 41 (4): 842–858. doi: 10.1068/a40197.

Mee, K. J., and S. Wright. 2009. “Geographies of Belonging. Why Belonging? Why Geography?” *Environment and Planning* 41: 772–779. doi:10.1068/a41364.

Mercer-Mapstone, L., S. L. Dvorakova, K. Matthews, S. Abbot, B. Cheng, P. Felten, K. Kris Knorr, E. Marquis, R. Shammas, andK. Swaim.2017.“A Systematic Literature Review of

Students as Partners in Higher Education.”International Journal ofStudents as Partners1 (1): 1–23.

Milton, D., and T. Sims. 2016. “How Is a Sense of Well-Being and Belonging Constructed in the Accounts of Autistic Adults?” *Disability & Society* 31 (4): 520–534. doi:10.1080/09687599.2016.1186529.

National Autistic Society. 2018. “The Language We Use to Describe Autism.” National Autistic Society. Accessed 28 July 2020. https://www.autism.org.uk/about/what-is/describing.aspx

Neal, J. W., and Z. P. Neal. 2013. “Nested or Networked? Future Directions for Ecological Systems Theory.” *Social Development* 22 (4): 722–737.

Nieminen, J. H. 2019. “Discourse of Otherness in a Universally Designed Undergraduate Mathematics Course.” In *Proceedings of the Eleventh Congress of the European Society for Research in Mathematics Education*, 6–10. Utrecht, The Netherlands.

Nieminen, J. H. (forthcoming). “Student Conceptions of Assessment Accommodations in University Mathematics: An Analysis of Power.” *Nordic Studies in Mathematics Education*.

Nieminen, J. H., and H. V. Pesonen. 2020. ”Taking Universal Design Back to Its Roots: Perspectives on Accessibility and Identity in Undergraduate Mathematics.” *Education Sciences* 10 (1): 12.

O'Keeffe, P. 2013. “A Sense of Belonging: Improving Student Retention.” *College Student Journal* 47 (4): 605–613.

Patton, M. Q. 2015. *Qualitative Research & Evaluation Methods*. London: SAGE.

Pesonen, H. 2016. “Sense of Belonging for Students with Intensive Special Education Needs: An Exploration of Students’ Belonging and Teachers’ Role in Implementing Support.” Doctoral dissertation. Helsinki: University of Helsinki. https://helda.helsinki.fi/bitstream/handle/10138/159852/senseofb.pdf?sequence=1&isAllowed=y

Pesonen, H., E. Kontu, and R. Pirttimaa. 2015. ”Sense of Belonging and Life Transitions for Two Females with Autism Spectrum Disorder in Finland.” *Journal of International Special Needs Education* 18 (2): 73–86.

Probyn, E. 1996. *Outside Belongings*. New York: Routledge.

Ranson, K. E., and L. J. Urichuk. 2008. “The effect of parent–child attachment relationships on child biopsychosocial outcomes: a review.” *Early Child Development and Care* 178 (2), 129–152.

Read, B., L. Archer, and C. Leathwood. 2003. “Challenging Cultures? Student Conceptions of 'Belonging' and 'Isolation'at a Post-1992 University.” *Studies in higher education*, 28 (3): 261–277.

Reseaerchned. 2019. Monitor Beleidsmaatregelen hoger onderwijs 2018-2019. Accessed 18 August 2020. http://www.researchned.nl/wp-content/uploads/2019/09/Monitor-Beleidsmaatregelen-2018-2019.pdf

Skrbiš, Z., L. Baldassar, and S. Poynting. 2007. ” Introduction–negotiating Belonging: Migration and Generations.” *Journal of Intercultural Studies* 28 (3): 261–269.

Slaten, C. D., Z. M. Elison, E.D. Deemer, H. A. Hughes, and D. A. Shemwell. 2018. “The Development and Validation of the University Belonging Questionnaire.” *The Journal of Experimental Education* 86 (4): 633–651.

Su’o’ng, T., and T. Nguyen. 2008. “Peer Debriefing.” In The SAGE Encyclopedia of Qualitative Research Methods edited by L. M Given, 605. Accessed 22 July 2020. doi: 10.4135/9781412963909.n312

Tavassoli, T., L. J. Miller, S. A. Schoen, D. M. Nielsen, and S. Baron-Cohen. 2014. ” Sensory over-Responsivity in Adults with Autism Spectrum Conditions.” *Autism* 18 (4): 428–432.

Tong, A., P. Sainbury, and J. Craig. 2007. “Consolidated Criteria for Reporting Qualitative Research (COREQ): A 32-Item Checklist for Interviews and Focus Groups.” *International Journal for Quality in Health Care* 19 (6): 349–357. doi:10.1093/intqhc/mzm042.

United Nations. 2016. “The Netherlands Ratifies CRPD.” Department of Economic and Social Affair, July 14. https://www.un.org/development/desa/disabilities/news/dspd/the-netherlands-ratifies-crpd-total-166.html

Vincent, J., M. Potts, D. Fletcher, S. Hodges, J. Howells, A. Mitchell, B. Mallon, and T. Ledger. 2017. “‘I Think Autism Is like Running on Windows While Everyone Else Is a Mac’: Using a Participatory Action Research Approach with Students on the Autistic Spectrum to Rearticulate Autism and the Lived Experience of University.” *Educational Action Research* 25 (2): 300–315.

Wilson, D., D. Jones, F. Bocell, J. Crawford, M. J. Kim, N. Veilleux, T. Floyd-Smith, R. Bates, and M. Plett. 2015. “Belonging and Academic Engagement among Undergraduate STEM Students: A Multi-Institutional Study.” *Research in Higher Education* 56 (7): 750–776.

Yorke, M. 2016. “The Development and Initial Use of a Survey of Student ‘Belongingness’, Engagement and Self-Confidence in UK Higher Education.” *Assessment & Evaluation in Higher Education* 41 (1): 154–166.

Yuval-Davis, N. 2006. “Belonging and the politics of belonging.” *Patterns of prejudice* 40 (3): 197–214.