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Exploring the phenomenology of autistic attention

Daniel Poole¹, Helen Molloy¹, Beatrix Butnicu¹, Elizabeth Milne¹ & Karen Leneh Buckle²

1 School of Psychology, University of Sheffield, UK

2 Division of Psychology, Communication and Human Neuroscience, University of
Manchester, UK

Corresponding author Dr Daniel Poole (daniel.poole@sheffield.ac.uk)

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Abstract

Background: Existing research has identified areas of strength and challenge in relation to autistic attention. However, this existing work has tended to rely on comparisons to neurotypical benchmarks meaning that how attention is lived and embodied by autistic people has been under-explored. This study addresses this critical gap via the first phenomenological account of how autistic adults experience their attention within everyday contexts.

Methods: Thirteen autistic adults took part in semi-structured interviews. To help participants express their complex and potentially hard to verbalise experiences, we integrated photo elicitation using researcher-selected photographs as prompts for participants to discuss their attention experiences. Data were analysed using Interpretative Phenomenological Analysis which was inductively driven but informed by a Merleau-Pontian framework.

Results: Three Group Experiential Themes (GETs) were developed. GET1, Interruption is Devastating: Participants described their attention as a sequential, deeply engrossed process. Interruptions, especially from other people, were profoundly challenging, often leading to a collapse of their focus and an exhausting state of vigilance. GET2, Interest Engagement as a Sanctuary: Time spent deeply focused on interests was described as a sanctuary, providing both joy and replenishment of cognitive resources depleting through navigating inaccessible environments. GET3, Attentional Normativity, exposed the friction between participants' attentional style and entrenched normative expectations about how attention 'should' function, which particularly impacted their experiences in the workplace.

Conclusion: This work provides novel insights into the phenomenology of autistic attention. We highlight elements across themes which support the monotropism theory of attention, within a lived and embodied subjectivity. We discuss the importance of challenging normative expectations of attention for creating neuroinclusive environments, particularly in the workplace.

Community Brief

Why is this an important issue?

Most research on autistic attention has been done using psychology experiments, comparing autistic people to non-autistic people. This can miss out on what attention is like in the real world. Understanding autistic people's lived experiences, not only in comparison to non-autistic people, is important for creating a more accurate understanding of what it is like to be autistic. This is important for making sure autistic people are appropriately supported.

What was the purpose of this study?

This study aimed to understand how autistic people understand and experience their attention, distraction and focus in their everyday lives.

What did the researchers do?

The researchers interviewed thirteen autistic adults, this included showing photos as prompts to explore their experiences around attention. The participants' responses were

analysed using Interpretative Phenomenological Analysis, which is a way of identifying important ideas based on the participants' exploration of their own experiences.

What were the results and conclusions of the study?

There were three themes

1. Interruption is Devastating. Participants described their focus as working on a single-track, focusing on one thing at a time. Interruptions, particularly from other people, created challenges which had an impact on their performance and wellbeing
2. Interest Engagement as a Sanctuary: Deep focus on interests was a source of joy that helped people recharge their mental energy
3. Attentional Normativity: Participants faced pressure from themselves and others to follow expectations about how attention "should" function. There was an impact on their wellbeing when they did meet these expectations and they described difficulties getting simple accommodations.

What is new or controversial about these findings?

The findings are new because they provide rich insight directly from autistic adults about what their attention is like. This work supports monotropism theory which describes how attention can be driven by interest. The theory says that people who are more monotropic focus their attention on a few interests at a time. Monotropism is popular with autistic people but has not been widely tested in research.

What are potential weaknesses in the study?

The interview we used might have encouraged participants to respond in a particular way.

How will these findings help autistic adults now or in the future?

These findings may validate the experiences of autistic adults, or help others to articulate their own experiences. This work has highlighted the impact interruptions can have on autistic people and how important time focused on interests can be. In the future, work like this can help with designing environments which are inclusive for different attention styles.

Key words: attention; monotropism; interruptions; interest; normativity

Introduction

In this study, we asked autistic people about their experiences of attention. We adopted a broad definition of attention as the mental processes which determine which signals enter conscious awareness. Underlying this definition is the assumption that awareness has a limited capacity,¹ meaning that some signals must be preferentially processed at the expense of others. We acknowledge that there is considerable academic debate about what attention is²⁻⁴ and intentionally adopted a broad, lay definition to avoid constraining insight from participants. This study is part of a wider research effort to systematically develop an autistic phenomenology,^{5,6} providing a rich account of autistic people's lived experiences and developing potential frameworks for research programmes about autistic and neurodivergent attention.

Autistic attention has primarily been studied using cognitive psychology experiments,^{7,8} findings indicate reduced attentional control, such as slower disengagement⁹ and distractor interference,^{10,11} alongside strengths, including enhanced visual search,^{12,13} and increased perceptual capacity.^{14,15} This experimental work has been valuable in characterising differences between autistic and neurotypical cognition. In the context of a broader autism literature which has been focused on deficit based understandings of autism, attention research has been notable for identifying autistic cognitive strengths. However, insights are necessarily limited by the use of measures and theories designed for the general population, meaning that attention has been measured in comparison to a neurotypical benchmark. Currently, attention theories do not provide a framework for estimating what size of effect observed on experimental tasks should be expected to translate into differences which shape experiences of attention in everyday life. Additionally, the reliance on theories from the general population has meant that common experiences for autistic people, which may be less relevant for neurotypicals, have been neglected. Most notably, the experience of deep focus. Autistic scholars have developed theoretical accounts relevant to the experience of deep focus, including the theory of monotropism,¹⁶ autistic flow,¹⁷ and inertia.¹⁸ However, there is currently limited empirical work testing these theories.

Moving beyond experimental research, there has been a recent emergence of qualitative studies on the nature of autistic attention which has incorporated an examination of the experience of deep focus. Irvine et al.¹⁹ used an open-ended survey asking autistic, ADHD, Autistic and ADHD (AuDHD), and neurotypical adults about their everyday attention experiences. Data was analysed within the enhanced perceptual capacity framework (i.e. developed from perceptual load theory of attention).²⁰ Participants described the common experience of being overwhelmed by both sensory signals and internal thoughts. Additionally, the pleasures of deep focus, a hyper-vigilance to surroundings and a need for environmental control were also raised. Broadly similar experiences were also described in a follow up study where intellectually disabled autistic people were interviewed.²¹ Rapaport et al.²² interviewed autistic adults about their experiences of being immersed in a task, analysing the data within the framework of autistic flow. Participants used a range of phrases to capture the depth of their absorption when immersed in a task, including "hyper-focused", "immersed", "in a state of flow" and "in the zone". Participants described this absorption as something which could be all encompassing, but brought a sense of joy, control and was a key part of understanding their identity. At the other end of the autistic attentional experience, a recent interview study explored how autistic burnout feels in 'the body and the

mind'.²³ Participants described exhaustion from periods of overstimulation leading to a profound impact on physical action. Following periods of burnout participants required time away from others and sensory stimulation to recuperate, or reported using substances to cope.

These emerging qualitative insights indicate that deep focus, attention switching, distraction and overwhelm are not isolated cognitive processes, but a significant aspect of autistic peoples' everyday experience that are deeply felt and shape (in)action.^{18,22,23} As such, an inductive phenomenological investigation of autistic attention is essential for capturing how the interaction between these processes are felt and shape interaction with the real world. This involves investigating how autistic participants understand their experience of attention without constraining them to a specific attentional construct (like flow) nor theoretical approach to attention (like perceptual capacity). In the present work our research question was foundational: how do autistic people make sense of their experience of attention?

Method

Approach

We made use of the interpretative phenomenological analysis method²⁴ to enable a close examination of autistic people's own meaning-making about their attention.²⁵ This is essential to understanding autistic attention, as what is meaningful to the individual drives what captures and holds focus.²⁶ To capture this, we adopted a Merleau-Pontian approach in the present study,²⁵ conceptualising attention as an embodied, situated phenomenon, involving an autistic person interpreting and interacting with environments which have meaning for them. The benefits of IPA as a methodology for autism research have been highlighted elsewhere.^{27,28} We highlight four ways in which Merleau-Pontian IPA is aligned with the neurodiversity paradigm.^{29,30} First, by treating neurodivergent people as experts in their own experience, with these experiences as worthy of detailed investigation and not only via comparison with neurotypical people. Second, through the double hermeneutic process³¹ requiring the researcher to reflect on and interpret cognitive disposition which may be different from their own.³² Third, its ideographic approach,³³ requiring case-by-case analysis honours diverse ways of experiencing the world, a core goal of the neurodiversity paradigm. Finally, understanding attention from a situated perspective, shifts research from an individualised differences to environmental mismatches and in doing so can address epistemic injustices.³⁴

We made use of photo elicitation³⁵ within the interviews, whereby researcher-selected photos served as visual prompts for participants to reflect on the nature of their attention in different contexts. Photo-elicitation is well aligned with the IPA method as both prioritise the lived experience of the participant and the collaborative construction of meaning with the researcher.^{36,37} Photo elicitation supports the hermeneutic process: first, the participant is required to make sense of their own experience through their interpretations of the images and 'show' this to the researcher. The researcher is then required to interpret this process of meaning making. We considered that using researcher-selected images had the potential to challenge the participants' own reflective assumptions about their attention and invite a deep and critical reflection on their experience.

This study is reported in line with the Standards for Reporting Qualitative Research.³⁸ The completed checklist is available as part of the materials available on the study Open Science Framework page (<https://osf.io/ht694>). We also include a short, co-produced comic which is a companion piece to the current work.

Participants

Participants were recruited from the Sheffield Autism Research Lab database. Participants responded to a recruitment email seeking autistic adults to explain what their attention is like.

Thirteen autistic adults took part in online interviews between April 2023 and August 2024. Four participants gave their age in years between 18 - 30; three between 31 - 40; three between 41 - 50; two between 51 - 60 and one between 61 - 70. Eight participants described their gender as male (including one TransMale) and five as female. Ten participants described their ethnicity as white British, one as Arab, one as Black African and one as Mixed Heritage. All participants in the study had a formal diagnosis of autism. Three participants described themselves as AuDHD. This sample size was determined based on guidance about robust IPA which encourages the use of relatively smaller samples to maintain an ideographic approach.^{31,39} Additionally, we were confident that our sample held high information power⁴⁰ as our participants held highly specific insider perspectives about their attentional experience and the communicative depth of the interviews was enhanced through the use of photo-elicitation.

All participants completed an online consent form prior to taking part in the study. Ethical approval for the study was obtained from the University of Sheffield (reference number 049363).

Procedure

In line with best practice in autism research,⁴¹ participants were provided with the interview schedule in advance of the interviews. The interview was semi-structured with participants encouraged to elaborate on anything that was important to them on the topic and the interviewer deviated from the order of the questions to follow salient points. Participants were given the option to take part online or in-person according to their own preference. Twelve participants were interviewed via Google Meet, Average interview duration was 42.5 minutes (SD = 8.27). One participant was interviewed via email. DP conducted twelve of the interviews and HM conducted one interview.

The interview began with photo elicitation, where participants were asked if any images were reflective of what their attention was like. The images were: a spotlight, fireworks, a hamster in a wheel, out of focus light (bokeh), pouring molasses, a person meditating by a lake, a tangle of electrical wires and a juggling unicyclist. Participants were told that they could choose more than one, or describe something else. Participants were then asked questions about focusing and being distracted, including being encouraged to recount specific experiences. They were also asked about workarounds they used and what would improve problems they experienced. The written version of the interview included examples to provide participants with a framework for responding to abstract questions about distraction and focus, but these were not directly referenced by the interviewer. The interview schedule is available as part of the materials available on the study [Open Science Framework page](https://osf.io/ht694).

Analysis

The analysis was inductive but drew from Merleau-Ponty's philosophy of phenomenology.²⁵ Specifically, DP was attentive to how participants described their bodily sensations and physical actions within their experiences of attention. This included prioritising the affective and physical subjective experience of attention and how these experiences might be shaped by interactions with the environment and other people.

Interview audio recordings were professionally transcribed. DP analysed the data following the IPA method.²⁴ This began with a detailed reading of each case and writing a brief summary statement on this initial reading. Following this, DP analysed each case consecutively, beginning with a process of line-by-line exploratory note taking. DP used the following analytic approaches: rephrasing statements into a single conceptual framework, making notes on the embodied phrases and metaphor the participants used when describing their attention experiences and making conceptual notes on possible meanings underlying participant statements. Once this was completed, DP formulated Experiential Statements from the exploratory notes within chunks of text. DP clustered Experiential Statements according to shared meaning. DP used Google Gemini to reorganise the Experiential Statements away from the structure of the interview to enable a deeper, more interpretative analysis when identifying clusters of meaning. No raw participant data was entered into Gemini and it was not used for interpretations. Personal Experiential Themes (PETs) were developed through identifying central organising concepts within clusters with iterative refinement to minimise redundancy. Once this entire process was completed, it was repeated for the next participant. A table of all Personal Experiential Themes, including underlying Experiential Statements and supporting quotes are provided in the [materials](#) available on the study Open Science Framework repository.

Personal Experiential Themes and the underlying Experiential Statements were audited by neurodivergent researchers (LB, BB, HM) leading to some relabelling and refinement. Cross case analysis of finalised Personal Experiential Themes was conducted to identify shared and unique experiences across participants and develop GETs. These were also discussed with the research team. All participants were sent a summary of the themes and were asked to respond to the following questions: Are there any points here which stand out to you? Does the summary spark any new thoughts or reflections? All four participants who responded endorsed the summaries with some refinements to wording which were incorporated in the finalised write-up.

Positionality

The epistemological position of the analysis was critical realist,⁴³ acknowledging a shared reality which is mediated by individual subjectivity. In the current study, understanding that attention experiences arise through the interaction between an individual's neurotype and their environment (rather than being a social or linguistic construct).

I (DP) bring training in IPA and experience of using qualitative methods. Prior to beginning the interviews, I completed a bracketing exercise,⁴⁴ working through the interview schedule to surface my *a priori* expectations about what the participants might say and my own responses to the questions. Briefly, I highlighted the contextual factors which I expected would shape participants' attentional experiences, with task interest likely to shape the

degree to which participants would be distracted by external stimuli. I noted an expectation that participants would highlight more challenges associated with attentional control in childhood which would have been mitigated through increased autonomy in adulthood and through the use of workarounds. Throughout the interviews and analysis I kept a detailed reflexive diary which I referenced throughout the analytic process. Additionally, I acknowledge ways in which my identity and experience will have shaped the interpretations reported here. I am a non-autistic autism and neurodiversity researcher. Whilst experienced with qualitative methods, my PhD training was in cognitive psychology, which likely shaped my interpretation and labelling of concepts highlighted by participants. The study was part of a larger research project making use of multiple methods to characterise autistic adults' experience of distraction which was supervised by EM who is a non-autistic professor of cognitive neuroscience who has primarily researched autistic attention and perception using experimental methods. LB, who is an autistic and ADHD researcher who is completing a PhD studying autistic inertia, was a consultant on this project. LB and DP co-developed the interview schedule, including the selection of images for photo elicitation. The images were selected to invite reflection on aspects of autistic attention which are commonly described within the autistic community and the research literature. LB also provided supervision, with additional auditing and supervision from neurodivergent researchers BB and HM who have researched monotropism and perceptual capacity respectively. LB, BB and HM also completed bracketing exercises prior to beginning the analysis

Results

There were three GETs: Interruption is Devastating, Interest Engagement as a Sanctuary and Attentional Normativity. The relationship with the underlying Personal Experiential Themes is represented in Table 1.

Table 1. Group Experiential Themes (GET) with the underlying Personal Experiential Themes (PET) and supporting quotes for that theme. Note that PETs "Carol": Overwhelm and burning out and "Emily": Overwhelm, self-worth and unmet security needs appear in GET1 and GET2. See the study Open Science Framework page for a description of each PET and their underlying experiential statements

GET	PETs	Supporting Quotes
GET1: Interruption is Devastating	"George": Single track attention "Daniel": Imposing order "Carol": Overwhelm and burning out "Emily": Overwhelm, self-worth and unmet security needs "Emily": (Dis-)Embodied attention "Adam": Attentional Self-Management	It becomes paralysing because, one of the problems of being autistic, is that I can only actually focus on one thing at a time, but my mind's trying to take in lots of things at the same time. [George] And even when it's quiet, I can't relax because any second that quiet could be shattered into a million pieces, so I'm tense permanently and I never relax [Carol] You know that it might happen at some point today, and therefore,

	“Carol”: The hidden labour of preparing for distractions “Liam”: Preparing for disruption: the exhaustion of always being ready	you’re constantly thinking to yourself, I’ve got to be ready for that or it’s going to blast my ears off and I’m going to feel terrible [Liam]
GET2: Interest Engagement as a Sanctuary	“Adam”: Attention tunnels as a cognitive state “George”: Hyper-focus as a sanctuary “Sarah”: Interest as the source of meaning. “Omar”: “Suffocation” of disinterest “Daniel”: Resources for focus “Aisha”: Getting to the baseline: Flow as a neutral state but a respite “Alex”: Interest as a fundamental drive “Carol”: Overwhelm and burning out “Emily”: Overwhelm, self-worth and unmet security needs	I don’t really notice my body, it’s like my body becomes, like it ceases to exist, I’m not aware of my body, I’m not aware of needing to go to the toilet or needing to eat or anything like that [George] My brain is, it’s like I’m an elastic band, so when I’m trying to walk away from the interest, there’s more and more resistance until I can, kind of, [think about my interest]... And it does feel like this elastic band is trying to pull me back all the time... I want to be focussing on the work or the conversation I’m having, and I feel that it’s difficult to do so because my brain is wanting to go back to where it feels comfortable. [“Sarah”]
GET3: Attentional Normativity	“Ian”: Friction between own attention style and others needs “Omar”: Guilt over 'wrong' focus. “Hannah”: A Lifetime of Navigating Normative Expectations of Attention “Liam”: The resource cost of masking: navigating stigma and normative expectations at work “Sarah”: Mismatches of salience “Jacob”: Loss of attentional autonomy through expectations “Alex”: Attentional needs:	But I feel like, if I put any attention onto things that I want, I just think it’s not attention on things that other people want... I always want to do my things when I want to, in my time, and it’s not always possible. So, it makes me feel a bit...well, other people can make me feel very selfish and self-centred about my own projects and what I want to do and whether it takes up too much time. [Ian] it, sort of, brings you out of your zone, and then you’ve got to start acting like a ‘normal’ person, instead of like an autistic person, when you’re at the door. And then you come back and then you, you’ve lost

	environmental mismatch and other's misinterpretations	your train of thought [Liam]
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GET 1: Interruption is devastating

Participants described attention as a sequential process, whereby they deeply engaged with a thought, item, or stimulus before moving on to the next. As George described: *"one of the problems of being autistic, is that I can only actually focus on one thing at a time"* with Ian also highlighting *"I can only think of one thing at one time"*. When able to sustain periods of focus after *"just being left alone"*, participants described being able to *"zone out"* [Hannah] from external demands and focus deeply on the current task. Interruptions were described as a violent rupture of this attentional state. Abrupt sensory stimuli, particularly motion in peripheral vision or sudden sounds could disrupt the sequential flow of attention. However, the sensory environment was typically described more as a barrier to initiating engagement, whereas interruptions from other people collapsed the focused state the participant had achieved. Indeed, participants who were interrupted by family members during their interviews highlighted how this disruption made it profoundly challenging to recollect their thoughts and continue, even with the aid of the interview schedule on screen.

Participants described a hidden labour associated with managing the interruptions in their daily lives. This was an attempt to establish control by reshaping tasks and actively physically restructuring their environment in a way which could facilitate the sequential nature of attention. For instance, considerable time was put into cognitive offloading like breaking tasks down *"by putting it all in a particular order, that really helps me to focus"* [Carol] and carefully listing the sequence of the fragmented parts *"as a physical brain"* [Adam]. There was a sense of relief in successfully preserving cognitive resources through offloading, as Daniel noted *"It's a, sort of, compulsion feeling... it's, kind of, pleasant in a way maybe... it stops my brain from jumping from one thing to the next all the time."* [Daniel]. However, ultimately offloading was essential to completing tasks as *"I find it difficult to return to things"* [Carol].

There were also resource costs as a consequence of interruptions. It was widely noted that even minor interruptions, intended to be benign, had a significant impact: *"Even a manager coming over to see how I'm getting on is a distraction to my concentration"* [Hannah]. Open plan offices were described as environments particularly challenging for this attention style, due to a continued threat of interruption:

[in an open plan office] *you'd have people walking back and forth behind you, where you think I don't know if this person is specifically coming to talk to me, or if they're just happening to walk in that direction right behind me. And you'd be sitting there, and anyone might come up behind you and be like, oh hey, can I do this? And it's, like, you can't focus on anything in that situation.* [Liam]

Liam later noted how the impact of an interruption could far exceed the intentions by making the comparison to having someone *"come with a megaphone and scream at your ear"*. Existing in a state of hyper-vigilance constantly anticipating interruptions depleted

participants' cognitive resources, but was seen as inevitable where they had limited control over their environment: *"sometimes you're doing one job and then suddenly you have to do another one and I've got used to doing that. So, it's...I'm not happy about it, but what can I do?"* [Ian] Participants described resource loss⁴⁸ from spending extended periods being interrupted and anticipating interruptions. Carol described how continuous workplace interruptions physically manifested: *"In my later years of working. I would go and silent scream in the ladies' room"* [Carol]. Here Carol is describing a desperate expression of pain from the conflict between neurotype and an overwhelming, inaccessible environment.

GET2: Interest Engagement as a Sanctuary

Interest in a topic or activity was described as the key determinant of attentional function *"It's very polar, I think. There's that really far end of, sort of, the hyperfocus, where I'm only paying attention to that thing and nothing else, and then this other side, where I'm finding it really difficult to focus and pay attention to things"* [Alex]. When their interest was appropriately stimulated, participants described a special state of being *'in the zone'*. The deep immersion of this state so completely consumed their attentional resources that the external world would *"fade away until it's me and the thing I need to be doing"* [Aisha], or experiencing a complete detachment of subjective from physical experience becoming *"totally oblivious to my own body"* [George]. Participants described self-reinforcing loops where deep focus created new connections which further sustained their engagement: *"I get really obsessive about knowing everything. And then linking it to other things as well, I think, with the same theme"* [Sarah]. Within this state, many participants felt able to process stimuli and information in a way that was otherwise inconsistent with their perception of their own cognitive abilities. These experiences of increased function also reinforced the desire to remain focused on their interest.

At the other end of the continuum of interest engagement was the sense of panic participants evoked when describing trying to engage their focus when their interest was not stimulated in the task: *"suffocated... Just talking about it now and I'm feeling a bit short of breath, it's intense"* [Omar]. Here Omar is describing a literal, physiological response from the memory of profound disinterest. A common experience was the struggle to focus on conversation around non-stimulating topics and activities. However, it was also noted that engagement was not only dependent on the topic, but also on the delivery of the speaker. In this instance, when others spoke *"enthusiastically"* this could make a topic easy to engage with, whereas the effort required to follow *"small talk"* was seen as disconnecting.

There were also costs associated with the singular focus on interests. Adam described failing to be sufficiently reactive to his partner:

"I might not register my partner talking to me, she said she could say my name two or three times or hearing her but needing to finish a thought, so looking at her but seeming like I'm ignoring but just had to finish the thought first" [Adam].

Deep focus could also impact on the degree to which participants attended to their own physical needs:

"I was enjoying it and I was taking every opportunity I could to get as much into it, and to do as much research as I could... Because, obviously, if I'm enjoying something, as I

mentioned earlier, why would I want to stop doing it? But I also do have to remember that I am a human and not just some sort of vessel of information. I do need to look after myself [Alex].

Alex here provides a reminder to himself of his own physical needs as the external direction of attention is so complete that the experience is disembodied.

Although participants expressed regrets at missing important signals when deeply engaged in their interest, focusing on one thing alone also served as a respite. It was noted that attentional resources being absorbed in an interest left none for rumination: *“the little voices in the back of the head, they’re not there, there’s no self-hatred and no thinking about problems or anything”* [Aisha]. It would also serve as a balm for the pains of overwhelming sensory environments: *“It’s like...once you get into that focus it can become very relaxing and very enjoyable, ‘cause, I mean, life as an autistic person is very chaotic, you hear everything, you see everything”* [George]. There was an intense need to protect this replenishing time, a need that participants compared to the need for sleep: *“I’m closing my eyes, I’m staying in this dream, this dream’s great, don’t you dare wake me up out of this dream”* [Aisha].

Crucially, time spent focused on interests played a role in restoring cognitive resources. Sarah embodied this concept using the metaphor of her interest pulling her like an ‘*elastic band*’ when engaging in tasks which depleted attentional resources. This created a tension which was physically felt, pulling her towards her interest:

“I want to be focussing on the work or the conversation I’m having, and I feel that it’s difficult to do so because my brain is wanting to go back to where it feels comfortable” [Sarah].

GET3: Attentional Normativity

Participants made negative comparisons between how their attention functioned and perceived norms about attention. Self-expectations were linked to what the attention of a productive, and thus valued, person should be like. Participants reflected on their own limits at managing multiple tasks simultaneously and how this entrenched feelings of low self-worth: *“it’s almost like a compounding my sense of failure in a way because I feel like they all need doing [different tasks] and they all need attention and I’m sort of failing because I can’t do them”* [Emily]. Frustrations at not being able to focus in the ‘right way’ fed into resource loss and overwhelm.

Participants also commented on how they internalised expectations about what should be considered salient and appropriate to prioritise. This included feeling guilty that the activities they tended to engage in were not acceptable: *“if I’ve won the game, yes, I feel happy. But, it comes with it very sad and angry from myself that I shouldn’t be wasting so much time on this game or this, doing gaming anyway”* [Omar]. Participants described the common disconnect between what they considered salient and external expectations. They acknowledged that the activities and topics which they were intrinsically motivated to engage in, were not well aligned with what others needed from them: *“juggling between what I want to focus on, to what my wife wants me to focus on, what’s expected of me at work and things like that”* [Ian]. Participants accepted that this compromise was part of being a responsible person and required to participate in society. However, there were frustrations that these

accommodations for differences in attentional style were not reciprocated as they were left with the feeling that what was salient to them was seen as trivial and that their motivation to spend time engaged in their interests was self-indulgent:

“But I feel like, if I put any attention onto things that I want, I just think it’s not attention on things that other people want...it makes me feel a bit...well, other people can make me feel very selfish and self-centred about my own projects and what I want to do and whether it takes up too much time” [Ian].

Participants described interacting with deep rooted norms about how appropriate it is to express passionate interest in particular topics:

“When I was a kid it was like, this is amazing, this...and they’re like, okay, yeah, good, yeah, great, that’s what you’re meant to be interested in, go ahead, knock yourself out. But now it’s like, why are you talking about this?” [Sarah]

Normative expectations about how attention should function were felt acutely in the workplace and suggestive of an ingrained sense of being different from the attentional norm: *“I’ve got a pattern of focus that’s, kind of, different than what the job needs at times” [Jacob].* A specific consequence of this mismatch was the expectation from other staff that the autistic person would share an understanding of what should be considered salient without explicitly communicating this to them: *“when I was given more than one task at the same time, I was really struggling to prioritise them, if you know what I mean, unless they specifically said, this is the most important one, so please focus on this” [Omar].* The indifference from others left participants feeling helpless, the challenges dismissed as their own personal failing. Indeed, participants found it difficult to ask for adjustments to better support their attention at work due to fears of being viewed as incapable: *“people would just get fed up of me and then I’ll be devalued” [Ian].* There was a fear that adjustments, which might be trivial to implement, were impossible to request as they required established norms to be upended. For instance, Sarah commented on how valuable it would be to be able to use her break times to engage with her interests to replenish the cognitive resources she needed to work, but instead there was an expectation to spend it engaged in small talk with colleagues: *“I think in an ideal world I would be able to, my break would, kind of, be dedicated to that interest. I would be a bit embarrassed to be, like, I need you to leave right now... so the elastic band isn’t so taut” [Sarah].* There was widespread frustration that adjustments would be simple to offer, but what was truly needed was some flexibility from management in thinking about what employees might need to succeed at work. Control was central to participants’ attentional needs in the workplace to address the conflict between their embodied subjectivity and their physical environment. For instance, access to hybrid working, control over one’s schedule or the environment. However, control at work was seen as a marker of occupational prestige which could not be made available as reasonable adjustment, even where this might transform the experience to the benefit of the individual and the organisation. Liam summarised the despair: *“We will make any reasonable adjustment so long as it’s the exact same workplace you’re already in”.*

The sub-theme of stigma captured a final way in which normative expectations shaped attentional experiences. Participants highlighted how self-monitoring involved attentional resources being directed to the body in space with fewer available for the external

environment. Hannah highlighted how challenging following the content of a conversation could be while self-monitoring:

“I’m busy mentally reminding myself to give eye contact, when to look away, when to nod or look like I’m listening, and I’m very aware of what my body is doing. I don’t want to have my hands stimming, or to touch my hair etc. I have to be aware of so much it can affect focus.”

Additionally, alternating between a task and social interaction led to pronounced switch costs: *“you’ve got to start acting like a normal person, instead of like an autistic person, when you’re at the door. And then you come back and then you, you’ve lost your train of thought”* [Liam]. People are typically unaware of their body parts unless they turn their awareness away from the world and towards the body itself.²⁵ Participants highlighted that self-monitoring requires attention to the body both within interpersonal interaction and simply when in a position when they felt that they might be observed: *“you’re in the office, you have to sit with your back straight. You have to look like someone who is there to do work, even if that look is a facade. Whereas at home, you can be slouching, you can be sitting in your underwear at your desk but doing your job properly”* [Liam].

Discussion

In this study, we aimed to provide a phenomenological account of how autistic adults experience their attention. Group Experiential Themes (GETs) highlighted benefits and challenges: attention was described as deep, functioning in a sequential fashion, which caused problems when interrupted, particularly by others (Interruption is Devastating). When free to focus on tasks and activities which stimulated their interests, participants described joy and a replenishing function to spending time deeply focused (Interest Engagement as Sanctuary). The challenges of navigating entrenched normative expectations about how attention should function were described and the ways in which these expectations shaped their experience at home and in the workplace (Attentional Normativity).

This study has provided rich and contextual insight into the interior experience of autistic attention style. These accounts were not suggestive of a fundamental deficit in attention;⁴⁶ instead attention experiences were shaped by factors like interruptions, having sufficient opportunity for deep engagement and most notably, the degree of interest in the task. The accounts across the GETs resonate with monotropism theory.¹⁶ Monotropism is an interest based theory of attention, which suggests that autistic peoples’ attention tends to be focused on a relatively narrow range of interests (*monotropic*). The monotropic attention style is characterised by “attention tunnels” activated by a person’s interest. The attention tunnel creates a “safe state” and being disrupted from these tunnels can be “catastrophic”.¹⁶ In the current study, participants characterised their attention in a way which was highly consistent with narrowly distributed attention. The challenges of being interrupted were captured in GET 1, although we noted that this was not only when engaged in activities that participants described as interesting. GET 2 showed the strongest alignment with monotropism theory, as participants detailed the passion for their interests and the importance of deep engagement for their wellbeing. This work suggests a monotropic attention style is a foundational, embodied way of being. This converges with accounts from other recent qualitative research which have highlighted how important autistic people describe their time

engaged in their interests and their experiences of being deeply immersed.^{19,21,22} In an investigation of task immersion²² participants made reference to disembodied experiences when deeply engaged in an interest, similar to the accounts in the present study (*"not sure I'm even aware I have a body at such time"*, pg367). Within these attentional tunnels, the focus of attention appears to be externalised on the interest to such an extent that the person's own body is no longer experienced as a physical object. Notably, this is in marked contrast to the accounts of self-monitoring within GET3 where attention was instead internally directed, on elements of interaction like eye contact but also movement and posture, to the extent that external focus is negatively impacted.

Participants highlighted the critical replenishing effects of immersion in an interest. This is consistent with accounts from monotropism¹⁶ and autistic flow theory,¹⁷ which have highlighted the role attention tunnels and flow states play in replenishing autistic attention. Wider social psychological theory has also highlighted a replenishing effect of interest engagement.⁴⁷ This replenishing function may be essential given the devastating impact of interruptions (as described in GET1) and from navigating attentional normativity (as described in GET3) alongside the wider stigmatisation and marginalisation autistic people face. Indeed, participants who faced barriers to interest engagement arising from external factors (like having young children) or internal factors (like pain) discussed feeling overwhelmed and burnt-out, missing out on this important opportunity for cognitive resource replenishment. Future research might examine how to effectively leverage interest engagement to protect autistic peoples' wellbeing. An additional consideration is the regret participants expressed about missing potentially important signals (GET 2). Investigation of effective workarounds which might empower autistic people to navigate external demands without sacrificing the benefits of deep interest engagement would also be valuable.

As captured in GET3, participants understood their attentional experiences in social-relational terms, misaligned with expectations of how attention 'should' function.⁴⁸ These accounts relate to the argument that attention norms are used to judge character and misevaluate neurodivergent people.⁴⁹ These norms include expectations about what a person should notice and recognise within their surroundings, what they should naturally find to be salient and how they ought to be attuned to what 'objectively' matters. In the present work participants described the guilt and low-self worth which emerged from these pressures. This overwhelming pressure to conform to normative expectations of attention supports the autistic community theory of 'monotropic split',⁵⁰ which describes situations in which monotropic attention is forced to attend to multiple channels simultaneously, overwhelming capacity limits. Masking within this state inevitably leads to burnout, as reported by our participants.

Participants widely noted barriers relating to their inclusion in the workplace arising from the mismatch between their intrinsic attentional style and what was expected. Chapman⁵¹ has theorised about the role that the cognitive expectations of modern work have played in increasing adult diagnosis and self-identification of neurodivergence. In post-industrial, service based economies much employment involves using technologies which force multitasking⁵² and require working in open-plan settings where interruptions are common.⁵³ The accounts here highlight how these conditions create systemic workplace barriers. Indeed, employment outcomes for autistic people are known to be poor. In the United Kingdom the employment rate for autistic people has been estimated at 29%.⁵⁴ Creating

inclusive workplaces will involve dismantling normative expectations about attention and valuing monotropic strengths. The current study has highlighted how minimising avoidable interruptions and maximising job control may be a key access needs, where the latter refers to the extent to which workers can influence their own work context, such as where they work and the order in which tasks are handled.⁵⁵ This is particularly important because, as has been illustrated here, autistic people can face heightened workplace demands, such as severe costs associated with being interrupted and in the cognitive effort involved in self-monitoring. Moving beyond requests for adjustments and towards neuroinclusion, future research could involve developing evidence based guidance following the principles of universal design,⁵⁶ to better support the diverse attentional needs of all people.

Strengths and Limitations

Strengths: The use of IPA to understand how autistic adults experience and make sense of their attention in everyday life is novel and has generated deep insight with implications for future research and practice. The credibility of our analysis was enhanced through our collaborative and reflective approach. The study was co-designed and the analysis was audited within a neurodiverse team with a range of expertise in autism attention research. Additionally, the use of photo-elicitation was innovative and effective for facilitating rich discussion around participants' experiences of attention.

Limitations: As the analysis involves interpretations of the participant's statements by the researchers, the researchers' experiences and perspectives necessarily inform the content of the analysis. We also acknowledge limitations relating to validity. The prompts that we used in the interview schedule to scaffold participants in their responding may have influenced or restricted the range of their responses. Additionally, we shared the summary of the themes with participants for comments and refinement, but this member checking was not conducted in a systematic way,⁵⁷ meaning that only some participants provided feedback that could be integrated into the final analysis. Finally, three participants identified themselves as AuDHD, meaning insights also reflect ADHD experiences. However, an overlap between autistic and ADHD attentional experiences is increasingly being acknowledged.^{19,58,59}

Conclusions

The current study has provided a phenomenological account of autistic adults' experiences of attention. These findings resonate with the monotropism theory of attention, demonstrating how a narrow, deep attentional style is driven by context and shapes barriers to inclusive experiences, particularly in employment. True neuroinclusion must dismantle normative expectations around attention, implementing universal design principles to enable environmental flexibility and provide protection from disruptive multi-tasking demands.

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References

1. Chun MM, Golomb JD, Turk-Browne NB. A taxonomy of external and internal attention. *Annual Review of Psychology*. 2011 Jan 10;62(1):73-101.
2. Hommel B, Chapman CS, Cisek P, Neyedli HF, Song JH, Welsh TN. No one knows what attention is. *Attention, Perception, & Psychophysics*. 2019 Oct;81(7):2288-303.
3. Krauzlis RJ, Wang L, Yu G, Katz LN. What is attention?. *Wiley Interdisciplinary Reviews: Cognitive Science*. 2023 Jan;14(1):e1570.
4. Wu W. We know what attention is!. *Trends in Cognitive Sciences*. 2024 Apr 1;28(4):304-18.
5. Green J, Shaughnessy N. Autistic phenomenology: Past, present, and potential future. *Frontiers in Psychology*. 2023 Dec 27;14:1287209.
6. Shaughnessy N, Green J, Williams E, Smith JA, Tzovaras BG, Aitkenhead G, Milton D, Jones E, Buckle KL. Developing a phenomenology of autism. In *The Palgrave Handbook of Research Methods and Ethics in Neurodiversity Studies* 2024 Sep 29 (pp. 233-256). Cham: Springer Nature Switzerland.
7. Courchesne E. Attention function and dysfunction in autism. *Frontiers in Bioscience*. 2001 Jan 1.
8. Ames C, Fletcher-Watson S. A review of methods in the study of attention in autism. *Developmental Review*. 2010 Mar 1;30(1):52-73.
9. Sacrey LA, Armstrong VL, Bryson SE, Zwaigenbaum L. Impairments to visual disengagement in autism spectrum disorder: A review of experimental studies from infancy to adulthood. *Neuroscience & Biobehavioral Reviews*. 2014 Nov 1;47:559-77.
10. Poole D, Gowen E, Warren PA, Poliakoff E. Visual-tactile selective attention in autism spectrum condition: An increased influence of visual distractors. *Journal of Experimental Psychology: General*. 2018 Sep;147(9):1309.
11. Poole D, Grange JA, Milne E. Putting the spotlight back onto the flanker task in autism: Autistic adults show increased interference from foils compared with non-autistic adults. *Journal of Cognition*. 2024 May 23;7(1):46-.
12. Constable PA, Bailey K, Beck A, Borrello D, Kozman M, Schneider K. Effect size of search superiority in autism spectrum disorder. *Clinical and Experimental Optometry*. 2020 May 1;103(3):296-306.
13. Kaldy Z, Giserman I, Carter AS, Blaser E. The mechanisms underlying the ASD advantage in visual search. *Journal of Autism and Developmental Disorders*. 2016 May;46(5):1513-27.

14. Remington A, Swettenham J, Campbell R, Coleman M. Selective attention and perceptual load in autism spectrum disorder. *Psychological Science*. 2009 Nov;20(11):1388-93.
15. Swettenham J, Remington A, Murphy P, Feuerstein M, Grim K, Lavie N. Seeing the unseen: Autism involves reduced susceptibility to inattention blindness. *Neuropsychology*. 2014 Jul;28(4):563.
16. Murray D, Lesser M, Lawson W. Attention, monotropism and the diagnostic criteria for autism. *Autism*. 2005 May;9(2):139-56.
17. Heasman B, Williams G, Charura D, Hamilton LG, Milton D, Murray F. Towards autistic flow theory: A non-pathologising conceptual approach. *Journal for the Theory of Social Behaviour*. 2024 Dec;54(4):469-97.
18. Buckle KL, Leadbitter K, Poliakoff E, Gowen E. "No way out except from external intervention": First-hand accounts of autistic inertia. *Frontiers in Psychology*. 2021 Jul 13;12:631596.
19. Irvine B, Elise F, Brinkert J, Poole D, Farran EK, Milne E, Scerif G, Crane L, Remington A. 'A storm of post-it notes': Experiences of perceptual capacity in autism and ADHD. *Neurodiversity*. 2024 Feb;2:27546330241229004.
20. Remington AM, Swettenham JG, Lavie N. Lightening the load: perceptual load impairs visual detection in typical adults but not in autism. *Journal of Abnormal Psychology*. 2012 May;121(2):544.
21. Elise F, Irvine B, Brinkert J, Hamilton C, Farran EK, Milne E, Scerif G, Remington A. Perceptual experiences of autistic people with an intellectual disability and people with Williams Syndrome: a reflexive thematic analysis. *Journal of Applied Research in Intellectual Disabilities*. 2025 Jan;38(1):e13326.
22. Rapaport H, Clapham H, Adams J, Lawson W, Porayska-Pomsta K, Pellicano E. "In a state of flow": A qualitative examination of autistic adults' phenomenological experiences of task immersion. *Autism in Adulthood*. 2024 Sep 1;6(3):362-73.
23. Ali D, Mandy W, Happé F. How does 'autistic burnout' feel? A qualitative study exploring experiences of earlier and later-diagnosed autistic adults. *Autism*. 2026 Apr;30(4):1014-27.
24. Smith JA, Larkin M, Flowers P. *Interpretative Phenomenological Analysis: Theory, Method and Research*. London: SAGE Publications; 2021.
25. Merleau-Ponty M. *Phenomenology of Perception*. Milton Park: Routledge; 2014.
26. De Jaegher H. Embodiment and sense-making in autism. *Frontiers in Integrative Neuroscience*. 2013 Mar 26;7:15.
27. Howard K, Katsos N, Gibson J. Using interpretative phenomenological analysis in autism research. *Autism*. 2019 Oct;23(7):1871-6.
28. MacLeod A. Interpretative phenomenological analysis (IPA) as a tool for participatory research within critical autism studies: A systematic review. *Research in Autism Spectrum Disorders*. 2019 Aug 1;64:49-62.
29. Dwyer P. The neurodiversity approach (es): What are they and what do they mean for researchers?. *Human Development*. 2022 Feb 22;66(2):73-92.
30. Walker N. Throw away the master's tools: Liberating ourselves from the pathology paradigm. *NeuroQueer*. 2013. Available from: <https://neuroqueer.com/throw-away-the-masters-tools/>
31. Smith JA. Participants and researchers searching for meaning: Conceptual developments for interpretative phenomenological analysis. *Qualitative Research in Psychology*. 2019 Apr 3;16(2):166-81.

32. Milton DE. On the ontological status of autism: The 'double empathy problem'. *Disability & Society*. 2012 Oct 1;27(6):883-7.
33. Pietkiewicz I, Smith JA. A practical guide to using interpretative phenomenological analysis in qualitative research psychology. *Psychological Journal*. 2014 Aug 1;20(1):7-14.
34. Legault M, Bourdon JN, Poirier P. From neurodiversity to neurodivergence: The role of epistemic and cognitive marginalization. *Synthese*. 2021 Dec;199(5):12843-68.
35. Kyololo OB, Stevens BJ, Songok J. Photo-elicitation technique: Utility and challenges in clinical research. *International Journal of Qualitative Methods*. 2023 Mar 16;22:16094069231165714.
36. Burton A, Hughes M, Dempsey RC. Quality of life research: A case for combining photo-elicitation with interpretative phenomenological analysis. *Qualitative research in Psychology*. 2017 Oct 2;14(4):375-93.
37. Lee LY, Tiu MM, Low LP, Cheng VS, Yau SY, Akingbade O. Navigating challenges in using interpretative phenomenological approach with photovoice: A systematic review. *International Journal of Qualitative Methods*. 2025 Apr 20;24:16094069251337582.
38. O'Brien BC, Harris IB, Beckman TJ, Reed DA, Cook DA. Standards for reporting qualitative research: a synthesis of recommendations. *Academic Medicine*. 2014 Sep;89(9):1245-51.
39. Nizza IE, Farr J, Smith JA. Achieving excellence in interpretative phenomenological analysis (IPA): Four markers of high quality. *Qualitative Research in Psychology*. 2021 Jul 3;18(3):369-86.
40. Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: guided by information power. *Qualitative Health Research*. 2016 Nov;26(13):1753-60.
41. Nicolaidis C, Raymaker D, Kapp SK, Baggs A, Ashkenazy E, McDonald K, Weiner M, Maslak J, Hunter M, Joyce A. The AASPIRE practice-based guidelines for the inclusion of autistic adults in research as co-researchers and study participants. *Autism*. 2019 Nov;23(8):2007-19.
42. Eatough V, Smith JA. Interpretative phenomenological analysis. *The SAGE Handbook of Qualitative Research in Psychology*. 2017 Mar 31;2:193-209.
43. Botha M. Critical realism, community psychology, and the curious case of autism: A philosophy and practice of science with social justice in mind. *Journal of Community Psychology*. 2025 Jan;53(1):e22764.
44. Tufford L, Newman P. Bracketing in qualitative research. *Qualitative Social Work*. 2012 Jan;11(1):80-96.
45. Hobfoll SE, Halbesleben J, Neveu JP, Westman M. Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*. 2018 Jan 21;5:103-28.
46. Keehn B, Müller RA, Townsend J. Atypical attentional networks and the emergence of autism. *Neuroscience & Biobehavioral Reviews*. 2013 Feb 1;37(2):164-83.
47. Thoman DB, Smith JL, Silvia PJ. The resource replenishment function of interest. *Social Psychological and Personality Science*. 2011 Nov;2(6):592-9.
48. Chapman R. Neurodiversity and the social ecology of mental functions. *Perspectives on Psychological Science*. 2021 Nov;16(6):1360-72.

49. Field C, Sylvan K. Neurodiversity and attentional normativity. *Philosophy and Phenomenological Research*. 2025 Sep;111(2):513-31.
50. Adkin T. Guest post: What is monotropic split? *Neurohub*. 2022. Available from: <https://neurohubcommunity.org/2022/07/14/guest-post-what-is-monotropic-split/>
51. Chapman R. *Empire of Normality: Neurodiversity and Capitalism*. London: Pluto Press; 2023.
52. Mark G. *Multitasking in the Digital Age*. Cham: Springer Nature; 2022.
53. Puranik H, Koopman J, Vough HC. Pardon the interruption: An integrative review and future research agenda for research on work interruptions. *Journal of Management*. 2020 Jul;46(6):806-42.
54. Office for National Statistics. *Outcomes for disabled people in the UK: 2021*. Newport: Office for National Statistics; 2022. Available from: <https://ons.gov.uk>
55. Karasek Jr RA. Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*. 1979 Jun 1:285-308.
56. Silver P, Bourke A, Strehorn KC. Universal Instructional Design in higher education: An approach for inclusion. *Equity & Excellence*. 1998 Sep 1;31(2):47-51.
57. Birt L, Scott S, Cavers D, Campbell C, Walter F. Member checking: a tool to enhance trustworthiness or merely a nod to validation?. *Qualitative Health Research*. 2016 Nov;26(13):1802-11.
58. Dwyer P, Williams ZJ, Lawson W, Rivera SM. A trans-diagnostic investigation of attention and diverse phenotypes of “auditory hyperreactivity” in autism, ADHD, and the general population. *Journal of Attention Disorders*. 2026 Jan;30(1):57-81.
59. Garau V, Murray A, Woods R, Chown N, Hallett S, Murray F, Wood R, Fletcher-Watson S. Development and validation of a novel self-report measure of monotropism in autistic and non-autistic people: The Monotropism Questionnaire. *OSF Preprint*. 2023