Going "full autistic" in improv: reduction in anxiety and other benefits

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Notes about terminology

Autistic people prefer identity-first language (IFL) as a descriptor (Kenny et al., 2016; Botha et al., 2021), but this cannot be true for all autistic people (people are all individuals and have personal thoughts, feelings and opinions). Keates et al. (under review) found some autistic people use a mix of terminology without clear reasons, and that autistic people with a strong preference for IFL had clear reasons, e.g., being autistic is viewed as inherent to their lived experience (Williams, 1996) and thus forms their perspective on how the world is processed and understood (Waldock & Keates, 2022). Moreover, many autistic people perceive being autistic as intrinsic to their identity (Sainsbury, 2000) and the use of IFL avoids a sense of being autistic as separate from themselves. In addition, some autistic people do not regard their condition as a disability; thus, instead it is a part of their identity. For example, a gay person is not a person with gayness (which was considered an illness historically). Neither would a person being gay be contextually appropriate to mention in every circumstance. Needless to say, disability can be felt when being autistic is viewed as an identity by autistic people. Fundamentally more autistic people prefer IFL, and we need to consider the harm created when not obliging this. The dehumanising nature of person-first language (PFL) is what creates harm (i.e., it is ableist and stigmatising). An autistic brain cannot be separated from the person (Bradshaw et al., 2021). As stated by Bottema-Beutel et al. (2022), "…language choices can perpetuate stigma, increase marginalization, and contribute to negative internalised self-beliefs within autistic people". There are autistic people that see being autistic as a valid social experience and cultural identity (like being British, which is why some autistic people use a capital 'A'; Sinclair, 2013), not a

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pathology or medical condition that requires remediation or removal (Dwyer et al., 2021). There are autistic people preferring PFL (as per Keates et al., under review), and a retort may be that those preferring PFL suggest that IFL is harmful; Dwyer (2022) addresses well, suggesting they have not engaged with the counter argument (i.e., why IFL is preferred); this seems apparent in Keates et al. (under review). Nonetheless, the answer is actually simple—let them use the terminology they wish and, for those that have this preference, those in a relationship with them can adhere to their personal preference (as found in Keates et al., under review). Those in a professional capacity (e.g., services and academia) should follow the preference leading to no harm (see Dwyer, 2022; Botha et al., 2021; Bottema-Beutel et al., 2021; Bradshaw et al., 2021; Bury et al., 2020; Chapple et al., 2021; Dinishak, 2021; Gernsbacher, 2017; Kenny et al., 2016; McCracken, 2021; Sinclair, 2013).

Abstract

Many autistic people take part in improv comedy (a small subset of theatrical improvisation) yet there is a paucity of research on this topic. This thesis explores the benefits of improv for autistic adults, in particular how it may alleviate anxiety. In addition, the lived experiences of autistic people were sought to be accounted for across the studies. There are two main research questions that underline this research: what benefit can autistic adults derive from taking part in improv? And does taking part in improv reduce anxiety in autistic adults?

The thesis is split into two parts. Part one responds critically to studies using previously published and retrospective data, consisting of a literature review, survey using quantitative and qualitative methods, and an interview employed to understand what improvisers experience. Part two is a study of autistic adults who are new to improv. This study used mixed methods in order to understand the benefits of participating in an improv course for autistic adults. It was found that when embedded within the autistic lived experience, improv can only partly alleviate life stressors (including reducing anxiety experiences) with various additional benefits that may lead to better well-being or quality of life.

Specifically, it was found that the improv course led to a reduction in social anxiety and feelings of uncertainty during the pandemic and from a short 4-week course (research question 2), keeping in mind the sample size was small. Mental health gains were not only possible for autistic people, as other neurodivergent improvisers discussed mental health. Acceptance was found to be a central improv principle, which was maintained across all studies and seemed to have impact on identity and well-being. Nevertheless, group dynamics and

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formation fundamentally include exclusionary prospects, such as othering. Negative, social encounters (even vicariously, e.g., vicarious helplessness) will impact post-dehumanisation (i.e., felt acceptance) through spatial matters. The social world is dominated by neuro-normative constructs and expectations upon those othered by the societal and structural systems. Therefore, how an individual's life impacts upon them will be determined by each life encounter and experience. Nonetheless, improv has clear value that seems to translate well for autistic adults.

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Publications

Keates, N. & Beadle-Brown, J. (under review). Theatrical improvisation and autistic people: a scoping review. *Advances in Autism*. (Appendix A.1: Chapter 2)

Keates, N. & Beadle-Brown, J. (2022). The benefits of participating in improvisational comedy: a global confirmatory survey study. *Comedy Studies, 13*(2), 161-174, https://doi.org/10.1080/2040610X.2022.2091719 (Appendix A.2: Chapter 3)

Keates, N. & Beadle-Brown, J. (TBC). Improviser's experience across neurotypes of participating in improv comedy. *Advances in Autism*. (Appendix A.3: Chapter 5)

Keates, N. (TBC). New to improv: the benefits of participating in improv comedy for autistic adults. *Sage Open*. (Appendix A.4: Chapter 8)

1. Chapter One – Introduction

It is worth noting that the introduction has been split into two sections. First, in this section, an outline of some of the key characteristics that define what it means to be an 'autistic person' will be introduced. In the second section, the terms 'theatrical improvisation' and 'improv comedy' will be defined and clarified. This is because of the need to fully elucidate both topics so as not to compromise the quality and depth of the study provided. It is acknowledged that greater detail is possible on various topics within these chapters. This being the case, further information has been provided in the appendices or through reference to other work. Therefore, the purpose of this introduction is to introduce all relevant topics in *enough* detail in order that the thesis is fully understood.

The Nature and Reality of Autistic People

Autism is a nebulous concept with some suggesting it does not exist (Re-thinking Autism Network; Runswick-Cole et al., 2016, or the critique of this by L. Arnold, 2016, W. Arnold, 2017), which aligns with some scholars of critical autism studies. Another perspective is that there are multiple presentations as per Coleman & Gillberg's (2012) 'the autisms', which is similar to the idea of autism not existing, but the difference is that, seen through a medical perspective; their perspective is that autism could in fact be multiple disorders or conditions that have similar presentations. Therefore, 'autism' is an amorphous concept, and it cannot exist external to the persons themselves (Botha & Cage, 2022).

In any case, differences between autistic and predominant neurotype (PNT) people can be found in autistic people's spikey profile (Doyle, 2020; Frith,

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1996; Kenyon, 2014; Milton, 2012a; Rees, 2017; Woods et al., 2019), abilities in socialisation and communication (at least with PNTs; Casartelli et al., 2020; Crompton et al., 2020a, 2020b, 2020c; Granieri et al., 2020), states of heightened, focused attention or usually termed specialised interests (some preferred alternative terms for this are SPINs and designated interest, or even hyperfocusing on an activity; Ashinoff & Abu-Akel, 2019; Fricker, 2020; Grove et al., 2016), routines (i.e., rigidity or repetitive behaviours in diagnostic criteria), and sensory sensitivities (DSM-5; American Psychiatric Association (APA), 2013). Many aspects of autistic lives are context dependent. It can be suggested that autistic sociality and system of interpretation can occur through countersocial means (Cole, 2021). Nonetheless, felt 'dis-ability' is not separate from the context in which autistic people live; an example of this is psycho-emotional disablement, which means the psychological and emotional effects of discrimination, prejudice and exclusion (Reeve, 2002). This felt dis-ability in society includes being psycho-emotionally alienated from other autistic people, and disabled through negative discourse, in/direct disablism (Milton & Moon, 2012; Mantzalas et al., 2022), such as increased mate crime (where friends or those close to them are the abusers) and victimisation for autistic people (Forster & Pearson, 2020; Pearson et al., 2022a, 2022b).

Anxiety is a common co-occurring condition alongside being autistic (Jolliffe et al., 2022; Lai et al., 2019; White et al., 2015); it occurs in approximately 40% of autistic individuals (van Steensel et al., 2017; Uljarević et al., 2016) compared to between 3.8–25% within the general population (Remes et al., 2016). The characteristics of anxiety include feelings of intense fear, nervousness, and unease, which may frequently lead to irrational thought and

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behaviours to avoid such feelings. Perkis et al. (2016) identifies that anxiety can be clinically significant or usual ebb and flow as an everyday emotion (e.g., to keep oneself protected and safe from walking into the road). It has been suggested that anxiety is a core aspect of being autistic (autonomic dysregulation theory, Benevides & Lane, 2015), but this is a misnomer as if it were true all autistic people would be found to be diagnosable with anxiety (i.e., anxiety would need to be a diagnostic criterion, rather than a consequence of living in the social world[1]).

Various aspects of anxiety are debilitating, and as such this could impact a number of the quality of life (QoL) domains (people's perception of their relative position in life in terms of their goals and personal standards, WHO, 2012) proposed by Schalock et al. (2002). A couple of examples to illustrate this are: anxiety occurring due to the choice whether to do something (e.g., apply for a job, linking to material well-being and personal development), and social anxiety occurring in everyday, necessary situations (e.g., asking a staff member in a supermarket; this could link to self-determination and possibly emotional well-being). In any case, it is possible that anxiety goes underdiagnosed because of being autistic, and vice versa (MacNeil et al., 2009; Mason & Scior, 2004). Therefore, anxiety can greatly reduce an autistic person's QoL. It could detract from their ability to engage in fundamentally necessary aspects of living, or unfamiliar settings or with meeting people (new or familiar) (Kerns et al., 2014).

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[1] There are many reasons for the causation of anxiety, for example, Freudian, neo-Freudian, and experimental cognitive psychological theories (Eysenck, 1992; Fischer, 1970). One of which seems important when considering autistic people is the social world; this is because of the innate reduced social position in the social world with which this population are commonly faced. Psychological explanations situate causation at an individualistic level, whereas sociological considerations can position causes beyond people and within a wider social setting.

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There are numerous explanations for these experiences, such as sensory differences (Black et al., 2017; Hwang et al., 2018; Pickard et al., 2020) and error prediction processing as discussed in 'Key Theories' on page 51 (Bervoets et al., 2021; Stark et al., 2021).

Keyes & Lopez (2002, p. 48) state, "we defined mental health as a complete state consisting of (a) the absence of mental illness and (b) the presence of high-level well-being." This implicates all mental health developments within the need for well-being. Keyes & Lopez (2002) believe that mental health can improve along the lines of remission from mental ill-health, but this may not lead to better psychological well-being. The correlation between these constructs for general population (US state Wisconsin) suggests that without both improving one may not sustain the mental health (Brim et al., 2020; Keyes & Lopez, 2002). Keyes & Lopez (2002) argue that talk therapies and drugs are not long-lasting solutions to mental ill-health (for the general population). This is a key consideration for autistic people (being that the prevalence of co-occurring mental ill-health is more common).

Autistic people do have a different neurology (APA, 2013), which means they experience everything at least partially differently to non-autistic people. This may impact their experience of emotions, QoL, well-being, and the concept of friendship[2] (see Bertilsdotter-Rosqvist, 2019; Heasman & Gillespie, 2019).

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[2] Additionally, this has been identified from Craine & Groach, 18 April, 25 April, 2 May, 9 May 2022, personal communication via participatory group online Zoom video conference meetings.

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Hence, autistic people's different experiences of anything could be counter to the normative.

History of Autism and Autism Research

The word 'autism' was first coined by Dr Eugen Bleuler in 1911 meaning aberrant self-admiration and withdrawal within oneself (Feinstein, 2010). As a result of this, it became feasible to self-define, define someone else, or diagnose an individual as autistic, which was previously not possible. Hacking (2007) identified that autistic people are a 'human kind'. Human kinds refer to the ways in which being human changes over time, and Hacking further asserted that some[3] human kinds exist that are different from natural kinds[4] (Hacking, 1995). Danziger (2003) further suggested that human kinds, or psychological objects as they term it, are "…self-referring and intrinsically part of social practice" (Brinkmann, 2014). Therefore, autistic people were only possible as a human kind upon the term 'autism' being assigned a social connotation and phenomenal properties—that is, as a kind of persons. Recent changes in how autistic people are thought about align well to the discussion about neurodiversity that is discussed in the section titled 'Paradigm Shift' (on page 37). Arguably, it was when Kanner and Asperger applied the term coined by Bleuler as a diagnosable condition that autistic people were formally made existent (Feinstein, 2010; Sheffer, 2018). As would be expected, as knowledge regarding this population of

[3] Lambert (2006) points out that, "Hacking is concerned about only some human kinds—not all human kinds and certainly not all human social phenomena."

[4] Importantly, Hacking (1995) also discusses the looping effect, which is discussed in 'Paradigm Shift' on page 37.

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people increased, so did the amount of diagnosable autistic people (Asperger's Syndrome entered the Diagnostics and Statistic Manual after being translated to English by Lorna Wing in 1981; Feinstein, 2010). As Uta Frith (1989) established, autistic people have existed throughout history but were undiagnosed and only retrospectively known as potentially autistic due to documentation of their way of being.

As understanding about autistic people increased, so did the research on them, and over the last few decades, theories about autistic people have increasingly developed. There have been numerous theories, but none have been extensive in their breadth to support the understanding of all aspects of autistic people (Chown, 2016). Historically, three theories have been predominantly applied to autistic people: theory of mind, central coherence, and executive functioning.

First, Theory of Mind (ToM) concerns cognitive empathy, and applied to autistic people, seeks to explain they possibly have a 'deficit' in mental representation (Baron-Cohen et al., 1985; Baron-Cohen et al., 2013). ToM has been longstanding, with initial studies on primates (Premack & Woodruff, 1978). It remains a studied field in its own right; yet, it has been questioned regarding autistic people (e.g., Bach, 2019; Dant, 2019; Dinishak & Akhtar, 2013; Gernsbacher & Yergeau, 2019; Holt et al., 2021; Ratcliffe, 2007; Williams, 2021; Williams et al., 2021). For example, if an autistic person designs an animation as per the Frith-Happé animation task, Edey et al. (2016) found that non-autistic people struggled to interpret it, whereas autistic people do not. Some of the scholarship used in support of the ToM framework could be better understood

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within Milton's (2012) Double Empathy framework (for more information, see 'Key Theories' on page 51) or similar theories (e.g., Beardon's (2008) 'Cross-neurological Theory of Mind'). Fundamentally, within the context of autistic people, the relational nature of ToM makes the theory moot[5]. This is not to suggest that previous studies have not identified some accurate phenomenon, but it is unlikely to be ToM. This is especially so as measures of ToM (for example, the Sally-Anne Test) do not quantify mental representation, but instead relational mentalisation (Deschrijver & Palmer, 2020).

Second, Central Coherence concerns autistic people's preference for local processing or being detail-focused (Frith & Happé, 2006); autistic people have this *strength*, whereas non-autistic people do not (Chown, 2016). Thus, scholars working in this area probably identify genuine differences in autistic cognition, but historically overlooked strengths and instead had a focus on putative weaknesses. Hence, it was originally suggested that autistic people have a *weak* central coherence, which implies that the preference for local processing is undesirable (Frith & Happé, 1994). This meant that autistic people have been perceived as unable to see the gist or the overall picture (Frith & Happé, 1994). This was evidenced by tests, such as the Group Embedded Figures Test (GEFT) and the Rod-and-Frame Test (RFT) (Chown, 2016). Through black line drawings, Joliffe & Baron-Cohen (2001) identified that autistic people tend not to locate incongruent objects in drawings. In addition, autistic people have been found to be better able to find a hidden triangle than non-autistic controls (Shah & Frith,

[5] Debunking the theory is not the focus of this thesis; therefore, please see Dr Gemma Williams's thesis (2020) and/or subsequent work, e.g., Williams (2021).

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1983). Other theories have suggested similarly to Central Coherence, i.e., now viewed as an autistic *strength*. One such theory is field independence, whereby non-autistic individuals are neither strong in field dependence nor independence (Chown, 2016). Field independence refers to someone not being influenced by the surrounding; for example, in the Group Embedded Figures Test, they would not be influenced by the larger shape and quickly locate the original smaller shape embedded within it. Conversely, field dependence means the opposite, so the person would see the larger figure and be slower at identifying the smaller embedded picture. This means that autistic people can be field-independent or prefer local processing (be detail-focused).

The last theory to mention is executive functioning, which covers a lot of areas in which autistic people apparently have a 'deficit'. These include mental flexibility, planning, self-monitoring, self-control, time management, and working memory (Pennington & Ozonoff, 1996). Goldstein et al. (2014) point out that the theory may well have been established in the 1970s, but an accident in 1840 first identified executive functioning as an idea. This was a railway accident with Phineas Gage, a railway foreman in the USA. He suffered a head injury to his left frontal lobe from an explosion sending an iron rod through his head. His personality and behaviour vastly changed because of this incident, and he became disinhibited and hyperactive. Nonetheless, Goldstein et al. (2014) reviewed the literature and found 33 different definitions of executive functioning, which suggests that it is a loose construct. This is a problem for empirical research that aims to operationalise and conduct research underpinned by this construct. In any case, many autistic people know the theory and apply it to their experiences of themselves, which provides credibility to the theory. The productivity for autistic

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people using the term is that is helps them to talk about their experiences they find difficult and in relation to strategies in education, but this is anecdotal knowledge. Nevertheless, it can be noted that evidence is emerging about other theories such as monotropism (see 'Key Theories' on page 51) that can explain executive functioning. This may well be in part to an increased understanding about autistic hyperfocus. To illustrate this, an autistic person that is deeply interested in one topic may lose track of time when engaging in it, and struggle to switch to a different task.

Nonetheless, none of these theories account for all aspects of autistic people; consequently, theories that can address as much as these and additional aspects of being autistic will be used (i.e., Monotropism, the prediction processing account, and Double Empathy Problem (DEP), see 'Key Theories' on page 51). In any case, it is commonly accepted that there is no widely agreed upon, unified theory about autistic people.

Paradigm Shift

The 'normal' child has only existed for about 100 years (Waltz, 2020).

History helps develop towards what academic and professional practice is currently postulated as 'good'. As implicated above, as knowledge of autistic people develops, so do practices involving this population (i.e., clinicians, education, health services, civic services, and research). For this reason, being autistic is both practically and conceptually different nowadays to how this was considered even a decade (or less) ago. As Hacking (1995) suggests, with the

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Looping Theory, 'autism' as a term has evolved in response to people's perceptions of it; this process is ongoing and interactive.

Neurodiversity

It has been identified that people are diverse in numerous ways, one of which is neurologically. Dr Nick Walker (2014) draws an important distinction between the concept of neurodiversity, the 'neurodiversity movement' and the 'neurodiversity paradigm'. Firstly, similar to biodiversity, people can be seen as diverse in multiple ways (e.g., height, sexuality, gender, race, etc.). Therefore, this can extend to neurology: everyone is neurodiverse (Walker, 2021), but not everyone is neurodivergent. Neurodivergent people are those that identify or are diagnosed with a relevant condition, for example but not limited to dyslexia, dyscalculia, dyspraxia, ADHD, epilepsy, hyperlexia, obsessive-compulsive disorder (OCD), pure O, Meares-Irlene syndrome, Tourette syndrome, synesthesia, and mental health conditions. Being neurodivergent can be all-encompassing, for example, some people consider cystic fibrosis as a neurodivergent identity (although this is anecdotal as an identity, medical research suggests the link; see Reznikov, 2017). Secondly, the neurodiversity movement refers to the social justice movement that builds towards civil rights, equality, and social inclusion of the minorities within the neurodiversity of the (global) population (where it currently exists). Whereas Walker (2021, p. 36) states the neurodiversity paradigm refers to:

>…[an] approach that boils down to these fundamental principles: 1.) Neurodiversity is a natural and valuable form of human diversity. 2.) The idea that there is one "normal" or "healthy" type of brain or mind, or

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one "right" style of neurocognitive functioning, is … no more valid

…than the idea that there is one "normal" or "right" ethnicity, gender, or

culture. 3.) The social dynamics that manifest in regard to neurodiversity

are similar to the social dynamics that manifest in regard to other forms of

human diversity (e.g., diversity of ethnicity, gender, or culture). These

dynamics include the dynamics of social power inequalities, and also the

dynamics by which diversity, when embraced, acts as a source of creative

potential.

It should be stated that those within the neurodiversity movement may

have differing opinions about the ways in which civil rights and equality is

achieved (including issues of diversity of ethnicity within the movement);

however, this has nothing to do with the neurodiversity paradigm. An autistic

person may propagate harm for other autistic people when generalizing what they

deem necessary for their social inclusion (e.g., social skills training), i.e., those

that do not want or need to assimilate into a neuronormative[6], ableist[7] construct

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[6] Catala et al. (2021) define neuronormativity as, "…the prevalent, neurotypical set of assumptions, norms, and practices that construes neurotypicality as the sole acceptable or superior mode of cognition, and that stigmatizes attitudes, behaviors, or actions that reflect neuroatypical modes of cognition as deviant or inferior."

[7] Ableism means "…[valuing] certain abilities, which leads to disableism, the discrimination against the 'less able'…. Ableism is a set of beliefs, processes and practices that produce [discrimination] based on abilities one exhibits or values a particular understanding of oneself, one's body and one's relationship with others of humanity, other species and the environment, and includes how one is judged by others" (Wolbring, 2006, 2007, 2008, 2012, 2013a, 2013b). The presentation of preference for certain over other abilities results in labelling of real or perceived deviations, which is a judgement of a diminishment of one's being that lead to the justification of prejudice (Wolbring, 2006, 2007, 2008, 2012, 2013a, 2013b). Therefore, as examples, a sexist woman, or a racist black person are possible. Thus, an ableist autistic is possible. For example, ableist views of autistic sociality may persist due to negative discourse; e.g., some autistic people want to adopt a PNT system of interpretation (Camarata, 2022), which is a minority in a minority that ignores the nuanced overview such as the reasons for such to exist (self-stigma and self-ableism) and ignores the consequence of passing as PNT (mental health issues) – leading to harm for themselves and other autistic people (Beechey, 2022; Keates et al.,

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of 'better' abilities (for issues with assimilation, see Creswell & Cage, 2019), or the variability of needs across time that changes the social inclusion required (see Keates et al., under review). These beliefs have no impact on Walker's three components of the paradigm. Therefore, the distinction between these two terms is important.

Similarly, it is the held view, following point 2 of Walker's articulation of the neurodiversity paradigm, describing autistic people as 'disordered' is no more valid than describing people with gender or sexual diversity in the same way, or describing people from Africa as 'savages'. This is due to the paradigm shift within autism research (as per Kuhn, 1962). Moreover, just as scholars have an ethical responsibility to actively engage in anti-racist practices and reflect on the ways that their concepts and methods reinforce racist structures, autism researchers have a similar responsibility in relation to ableist concepts, methodologies and patterns of thought.

Importantly, the emergence of the autistic community provided an opportunity for the neurodiversity movement, as Dr Steven Kapp's (2021) edited collection indicates. Thus, it is proposed that there is a change from autistic individuals that were often isolated neurodivergent people in a neuronormative environment, to a collective autistic community. Although an autistic community may be different between various collections of people, the formation of autistic spaces is where a greater, deeper understanding of autistic identity starts to

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2022). Furthermore, it seems that older academics and more so the use of medical narratives predict ableism in autism research (Botha & Cage, 2022).

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emerge. This can be perceived as analogous to the D/deaf community. Prior to Deaf schools and social spaces, D/deaf people did not know others like them as they could view themselves as disabled and 'lacking' due to the comparison to the hearing people around them who were difficult to understand. This highlights fundamental communication differences and needs that create problems. Consequently, the D/deaf community now sees itself as a linguistic and cultural minority. It is being suggested that autistic spaces may function similarly. An isolated autistic person can perceive themselves through the lens of what is 'normal' to hold a self-concept of being 'disordered' (for more regarding this, see 'Negative Discourse' on page 55). Furthermore, autistic spaces can exist due to the people within the spaces, such as at the autistic-led Autscape and Autreat conferences, and in online spaces. It is important to acknowledge that it is not about the quantity of people, such as the critical mass of autistic people, but the sense of power. For example, in Special Educational Needs (SEN) schools, this would not necessarily evolve into an autistic space because those governing the institution may well be neuronormative in attitude and practice in the school.

Epistomology and Ontology

In this thesis, due to the paradigm shift implicates the epistemological position in which the research is situated. For instance, through perceiving neurological differences as simply different ways of being human, research and study of human beings must see the knowledge produced by people with these differences as equally valid. This means that we need to challenge the traditional idea that there is a single, objective way of knowing the world, and instead recognize that there are multiple ways of knowing, each with its own strengths

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and limitations. Furthermore, the neurodiversity paradigm challenges the traditional view of the relationship between knowledge and power; thus, there is a need to address who has the power to define what counts as knowledge. For example, the epistemic injustice of autistic people, whereby they are not in power and are seen as having less legitimate knowledge claims. The neurodiversity paradigm suggests that those with neurological differences may have insights that are not available to those who are PNT. This means that we need to be open to the possibility that those with neurological differences can have valuable knowledge to contribute, and that we need to be willing to listen to their voices. This thesis adopts the autistic voice through its use of qualitative study and through implementing consultation (see page 45 on Arnstein's Ladder). The neurodiversity paradigm has been adopted as an equivalent of an epistemology. Additionally, it is possible to also identify that the neurodiversity paradigm can offer a system of understanding the world (ontology). In so far as to suggest that each brain through the human diversity is both valid including their differences. Fundamentally, the neurodiversity paradigm is a valuable framework for understanding the world and people's place within it.

Models of Disability, and Research

With autism being a part of their identity and/or personality, viewing autistic people via certain models of thought can be counterproductive. Being autistic may result in experiencing issues or it could dis-able people, but this is dependent on individual's life experiences.

An enduring position about disabled people derives from Finkelstein and the Union of the Physically Impaired Against Segregation (UPIAS, 1976). They

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considered that disability was not purely medical, and that the systemic and structural elements of life needed to be addressed. Professor Mike Oliver progressed from what Finkelstein and colleagues proposed when constructing the still misunderstood model of disability, the social model of disability (Oliver, 1990). The social model of disability provides a better perspective for understanding how autistic life experiences are impacted not only by being autistic, but by the wider society and world around them. Thus, being autistic is not a deficit for all autistic people, but a difference, whether disabling or not.

In research, autistic scholars help provide lived experience with their work output. For example, DEP (Milton, 2012b) provides the insight that autistic people may not understand PNTs, but neither do PNTs understand autistic people. Understanding autism from the socio-cultural position is different to the dominant position taken in autism studies. Frequently, the medical model of disability is used, eliciting a deficit-focused study design and research aims.

The biopsychosocial model of disability (Engel, 1977) could be a better approach (Wade & Halligan, 2017), but the sociological aspect is often missed (Milton, 2013) beyond Eyal (2013), Leveto (2018), Maynard & Turowetz (2019), and Rourke's book on sensory sociology (2019). As could be clear from the term itself, this model proposes biology, psychology and sociology be equally contemplated regarding the construct of disability. When appropriate, this thesis will address the biomedical aspects of disability in the data reported. However, a focus on the sociological aspects will be at the forefront of study designs and interpretations. The intent to use psychological theories will be apparent within this chapter (see 'Fields of Study' below on page 46). Similarly, the cultural

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model of disability has value, as certain cultures will perceive certain 'traits' of autism as being 'wrong'. For example, it is rude to make eye contact in China, so this is not a disabling 'trait' of being autistic within this culture (de Leeuw et al., 2020). Therefore, cultural considerations will be contemplated where applicable.

Thus, as Waldock & Keates (2022) explicate, research must include lived experiences and work in partnership with autistic people across different intersections for the development of knowledge about autism and critical autism studies to succeed. As per Arnstein's Ladder of Citizen Participation (1969) (hereafter referred to as 'the ladder' or 'Arnstein's ladder', where applicable), the best result is with people and not about them. Arnstein's ladder (1969) is an 8-rung ladder that represents different levels of 'citizen power' during participation. These eight rungs are: manipulation; therapy; informing; consultation; placation; partnership; delegated power; citizen control (see fig. 1). The goal within autism research should be participation, as per the ladder with it equating to citizen power.

> It is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future (Arnstein, 1969, p. 216).

Fig. 1.

Replica of Arnstein's ladder.

Rung	Category
8. Citizen Control	Degrees of Citizen Power
7. Delegated	Degrees of Citizen Power
6. Partnership	Degrees of Citizen Power
5. Placation	Degrees of Tokenism
4. Consultation	Degrees of Tokenism
3. Informing	Degrees of Tokenism
2. Therapy	Non-participation
1. Manipulation	Non-participation
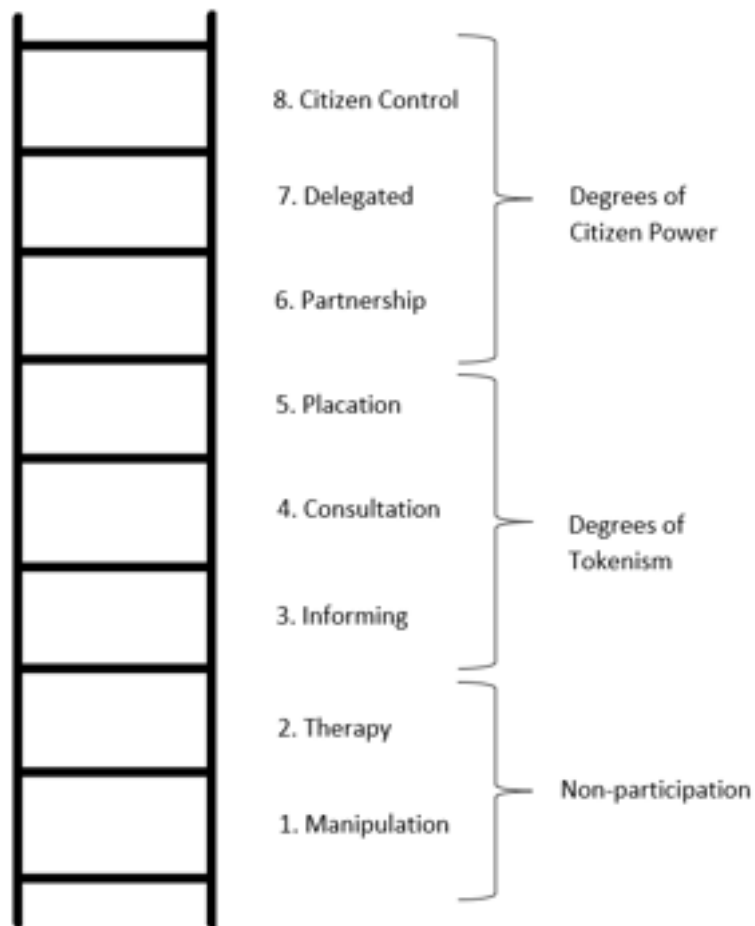
For this reason, research on autism must not be tokenistic and all studies in this thesis have used a consultation group. Although this is not in complete partnership, and consultation is stated as tokenistic by Arnstein, there is no tokenism of the group's participation within any studies in the thesis; the research did heed the voices of the autistic community (unlike as rung three and four of the 'ladder').

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Fields of Study

The thesis is underpinned by sociology and psychology and relevant theories from within these fields of study (i.e., through the application of both sociology and psychology, as well as considering the interaction between both disciplines where applicable). There is emphasis on social psychology and some relevant aspects of positive psychology. Key concepts from social psychology include group forming and norming, social facilitation, group polarisation, and social and personal identity.

In group formation, people naturally go through a process of in-group development (Carr, 2003; Hewstone et al., 2008). This process can re-start at any point, including after the group has formed (intra-group comparison). In relation to autistic people, the groups formed are dependent on their sense of belonging (which is a nebulous term that in this context means feeling like they are an integral part of the group). In the PNT, social world, autistic people are reminded about their outsider identity each day of interacting in that world (Anderson-Chavarria, 2021; Beardon, 2011; Jones et al., 2015; Michael, 2021; Nachman & Brown, 2020; Stevenson, 2010). Within an autistic group, these social processes may still happen, much the same as with non-autistic people. Thus, this is not to say all autistic people will fare well together. As an outsider, autistic people can face group polarisation, whereby the non-autistic group (or society) collectively decide on extremes (of practices, beliefs and attitudes) together whereas individuals would not. This aligns to autism research over the years, pathologizing autistic people together to the extreme that even a strength in morality is interpreted as a deficit (Bellesi et al., 2018), or autistic people are

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perceived as non-human to the extent that findings on a lack of shame are professed as accurate and there is no reconsideration of the methodology (Gaziel-Guttman et al., 2022). These extremes could be due to group polarisation. Lastly, it has been detailed that being autistic is an identity, it is a social identity (from membership to a group; their neurotype in this instance, but others include race, gender, and sexuality, Tajfel & Turner, 1979). Personal identity is the unique characteristics of a person (Ashforth & Mael, 1989; Brown, 1997; Ibarra & Barbulescu, 2010; Petriglieri, 2011), such as boisterous, opinionated, and timid.

Social factors of consideration include concepts from sociology, such as stigma and othering. This includes courtesy or affiliative stigma (or stigma by association with an outsider), felt stigma (or self-stigma, self-blame), self-ableism, and public stigma (negative or discriminatory attitudes towards the persons with an outsider identity) (Allport et al., 1954; Corrigan et al., 2006; Goffman, 1961/1968; MacRae, 1999; Scambler, 2006, 2009). Another important concept is the group of terms around passing, masking and camouflaging (the ability of a person to be regarded as non-autistic: Livingston et al., 2020; disguising their personal characteristics or hiding their autistic behaviour; and the use of strategies by autistic people to diminish being visibly autistic in social situations: Lai et al, 2017, respectively). These relate to social psychology regarding self-concept and social identity. In relation to autistic people, stigma is due to the outsider identity. Goffman (1961/1968) discusses a 'blemished' identity, whereby a person could have an identity that is othered by society. In a similar way, sick role theory states that someone that is 'ill' has a different set of rights and obligations to those that are well (Parsons, 1975). Autistic people (seen as ill) are provided less rights and obligations than non-autistic people (Drew et

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al., 2011; Fennell, 2022; Kuangparichat, 2010; Rosenblatt, 2018). When considering this, it is obvious that autistic people pass or mask, because it is a frequent requirement for this population to manage day-to-day living (Cook et al., 2021).

From positive psychology, there are numerous theories of interest, that in part will be relevant within this thesis. These are flow, resilience and thriving (or autistic flourishing), learned helplessness, and QoL and well-being.

Flow is a term coined by Prof Mihalyi Csikszentmihalyi (1990). There are in essence seven components to the concept: clear goals and immediate feedback; total immersion in the present moment; actions and awareness become merged, automatic and effortless; outer-bodily or loss of self in the moment; a sense of control without fear of failure; time dilation or 'slow motion'; and autotelic (intrinsically rewarding). For autistic people, this can have positive and negative consequences (McDonnell & Milton, 2014; Milton, 2017). Flow is usually a positive experience: in sports people seek flow to be at their peak; in music, musicians are in the flow when they are 'in the groove' or similar; various people at their workplace will experience flow when they are working to their optimal (experience) (Csikszentmihalyi, 1975, 1997, 1988; Csikszentmihalyi & Rich, 1997). Autistic people may easily find flow (McDonnell & Milton, 2014), such as with hyperfocus, or even stimming. However, the experience (alike many other aspects of an autistic life) is heightened, which may lead to being in flow at cost (e.g., stopping them from eating or visiting the lavatory, McDonnell & Milton, 2014; Milton, 2017).

Resilience is a key concept when considering autistic people. However, acknowledgement must be on the issue of whether anyone should have to be resilient. It has been positioned that no one must be resilient from an ideological standpoint, because (as with autistic people) it remains that such concept could be prejudicial at its base (e.g., ableist). Nonetheless, resilience without any social factors would remain (i.e., natural disasters), for example, sensory sensitivities are not *all* based on social factors.

O'Leary (1998) discusses three models of resilience. The compensatory model can be deemed helpful in situations whereby positive ('silver lining') mentality can be implemented (i.e., to find value and thus positive, compensation). The challenge model could be associated with academia, whereby we must have the challenge to grow (i.e., peer review process). However, the issue within this model for autistic people is that it could ignore those that suffer due to receiving or perceived negative remarks; their rejection sensitive dysphoria hinders this model working for them. These people may rather value learning and creating over summative feedback (but formative in essence). The protective model is alike the autistic identity being a protective factor, moderating the impact of any situation or experience where it may be relevant. O'Leary (1998) mentions how social support and collective resilience functions, so autistic people without a network for support may be naturally worse off than those with people within their network. Dunbar (1993) notes that people generally have five close friends, 10 to 15 friends and up to 150 people in their wider acquaintances network.

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Relatedly, Tedeschi & Calhoun (1995) identified the positive psychological change that is termed 'post-traumatic growth'. In this, people do not experience stress after a major traumatic incident but gain from the experience. O'Leary (1998) suggests those that cannot combat the challenge will not gain and will not recover. The result of any situation requiring resilience could lead to surviving (but without their usual 'functioning'), recovering (returning to their usual 'functioning') or thriving that is about gaining from the experience. Correspondingly, Pellicano & den Houting (2022) assert that autistic flourishing needs to be through the removal of physical, societal, and attitudinal barriers. Pellicano (2022) maintains that non-autistic people need to foster flourishing (as the focus of interventions) through people, place, and time (i.e., trusting relationships or acceptable adjustments and attitudes; sensory considerations; and control).

Quality of life (QoL) is a complex phenomenon that has been well-studied over the years (Aaronson, 1988; Felce et al., 1995; Gerson, 1976; Kimmel, 2000; Nussbaum & Sen, 1993; Schalock, 1990, 2000). The World Health Organisation (2012) defines it as, "individual's perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns." However, for researchers wishing to understand QoL, it is integral that the individuals under investigation are at the forefront of what this means and how it can be understood.

Similarly, well-being is a broad term that indicates what is intrinsically valuable to a person. From the ancient Greeks to today, its understanding (philosophically) remains under question (Alexandrova, 2012). In this thesis, it

will be presented through hedonism (pleasure and joy) and eudaimonia (a meaningful life), or at times psychological well-being (one aspect of eudaimonia: Keyes, 2009). In any case, various researchers have posited that well-being needs to be considered within the context of the person (see Huebner et al., 2009 for an overview). Ng & Fisher (2013) suggest a multi-level model of well-being, so to understand the structural and environmental impacts upon the individuals and their well-being.

An important theory linking well-being and QoL is self-determination theory (Deci & Ryan, 2008). Deci & Ryan (2008) conceptualise self-determination as optimal human functioning through three basic human needs, which are autonomy, competence, and relatedness.

Key Theories

Autistic people's lived experiences and cognition are well explained by three key theories: Monotropism, the prediction processing account, and DEP. Monotropism was developed by the Dr Dinah Murray and colleagues. It built on Dr. Wenn Lawson's Single Attention and Associated Cognition in Autism theory (see Chown, 2016) (even other scholars have hypothesised similarly, i.e., Golknopf, 2013). Dr Mike Lesser, one of their colleagues, has stated that Monotropism is not a model of autistic people but "…a theory about human beings, in which autism has a natural role" (Burne, 2005). The theory poses that autistic people tend to focus attention (or interest) on one thing at a time. This leads to being less able to simultaneously process multiple stimuli (from a model of 'interest systems', Murray et al., 2005). The salience of people's general different interests that occur at various times are dependent on the moment

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(Murray, 2019); however, autistic people have fewer interests aroused at any given time, and require the resources for processing (Murray, 2019). Processing demands over or beyond this 'tunnel' of attention may be more difficult to manage (Murray et al., 2005). Therefore, it should be noted that this theory is not just about interests or autistic focus, but the wider impact of 'attention tunnels'.

Monotropism seems to theoretically account for all aspects of autistic people. Murray (2018) suggests the theory accounts for the following key aspects: the "all or nothing" thinking; possible problems with coordination and integration; executive function and "mentalizing" differences; hyper- and hypo-sensitivities; set switching issues; strengths in perceptual processing; being highly skilled in specific areas (i.e., savantism); and early language regression. Dr Wenn Lawson (2013a; Lawson & Dombroski, 2017) identifies how monotropism can provide alternative explanations to theory of mind, suggesting through their critical review (from a neuroscience lens) that autistic cognition is to do with how attention is processed. Kourti (2021) claims that monotropism (and DEP) improves on past theories because they hold transcendental arguments, i.e., are objective due to the focus on autistic embodiment and not to the 'subject's' features; transphenomenal (across mechanisms that affect events); and counter-phenomenal. Recent research presented at Autistica Research Festival 2022 has identified monotropism in autistic and ADHD people (Garau et al., 2022). Similarly, findings from Chapple et al. (2021) indicating the depth of feeling and capability for focus support the theory, with Richman et al. (2022) noting the unshifting attention is supported in their findings. Bonneh et al. (2008) found in their empirical study that the findings were consistent with the theory of monotropism (i.e., perceptual differences and focused interests within sensory

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and general processing). It has been suggested that autistic cognitive domains seem to function in isolation (Dawson, 2012, cited in Milton, 2012). Moreover, Anthony et al. (2013) contend that a monotropic mind could distinguish between PNTs and autistic people (81% of the time). In Hendry et al. (2020), they identified that autistic traits were elevated for children with plateaued attention development (or limited attentional focus). Furthermore, Crompton et al. (2020) discuss the differences in rapport based on monotropism and the volume of interaction processed, and the need to focus on certain social information. Additional research stating monotropism in regard to social communication are from Williams et al. (2021) with discussion on the monotropic turns (ethnographic case study) and Bertilsdotter-Rosqvist's (2019) interest-based sociality (focus group data). These are supported in the review by Lawson (2013b) and applied in Jurgens (2020). Further empirical, review, and other papers have been elucidated in appendix F due to the misconception regarding the evidence-base.

Predictive processing was first considered by Sir Karl Friston with the conceptualization of the free energy principle (2010). This details how the brain is a "prediction machine" that aims to diminish free energy (reduce predictive errors). This positions general population's cognition as a Bayesian processing system, whereby only information that is not predicted is passed through the 'neurological layers'. Pellicano & Burr (2012) suggest that autistic people have 'hypo-priors' that could explain the 'unique' autistic perceptual experiences. In essence, 'hypo-priors' mean that autistic people see the world more accurately rather than through modulated prior experiences; they process more data. Thus, this account seems to explain the differences in social cognition and sensory

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sensitivities. Autistic people could be mostly hyper-sensitive to sensory input

(MacLennan et al., 2022). However, autistic people are heterogeneous and

generalizing the same hyper-sensitivity would be inappropriate due to some

autistic people experience hypo-sensitivity (Black et al., 2022; MacLennan et al.,

in press; Sibeoni et al., 2022). Just as this theory explains social communication

and sensory need, so too does it identify reason for routines and interests; in

particular, 'hypo-priors' establishes that autistic people would need to reduce

predictive errors, which is suggestive of requiring routines, and may indicate

reasons for their hyperfocus on their interests[8]. Moreover, when considering

embedding this theory within the societal structures and systemic barriers, this

can begin to explain the autistic social and communication systems (PNT social

cognition uses modulation) and the co-occurrence of mental ill-health (the impact

of this and the normative social world, i.e., autism + environment = outcome,

Beardon, 2021b). Error prediction processing links well to older theories that do

not fully explain the various differences, and experiences of autistic people (e.g.,

central coherence, theory of mind, and executive functioning).

> Due to differences in the way autistic people process information…
>
> autistic people have a tendency to be more literal, and work upon what is
>
> tangible and present, thus conclusions are reached through available
>
> information (without filling in the gaps). (Milton, 2013)

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[8] Rowland (2020) proposing hyperfocus as its own theory of autistic
people.

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DEP (Milton, 2012b) is the bi-directional relation between autistic people and their (non-autistic) interlocutor. It has been found that neither autistic nor non-autistic people understand how the other neurotype is thinking and feeling (Brewer et al., 2016; Chapple et al., 2021; Crompton et al., 2020a, 2020c; Edey et al., 2016; Faso et al., 2015; Finn-Kelcey, 2021; Gernsbacher et al., 2017; Gillespie-Lynch et al., 2019; Grossman et al., 2013; Heasman, 2017; Heasman & Gillespie, 2017; Hummerstone & Parsons, 2022; Sasson & Morrison, 2017; Sasson et al., 2017; Sasson et al., 2018; Schreerer et al., 2021; Sheppard et al., 2016; Stagg et al., 2014; Usher et al., 2018). Furthermore, theories that directly stand against this could be deemed pathologizing with a basis of the empowered typicality at the forefront of this narrative. For example, the DEP directly contests ToM (Chapple et al., 2021) through "…[producing] a critique of autism being defined as a deficit in 'theory of mind', re-framing such issues as a question of reciprocity and mutuality" (Milton, 2012b, p. 883).

Negative Discourse

Negative discourse in autism research prompts limited understanding and cyclical perspectives (Kapp, 2019; Pellicano & den Houting, 2022; Solomon & Bagatell, 2010). This can include, but is not limited to, language use (see notes on page 5), the normalization agenda, psycho-emotional disablement, and identity depreciation (e.g., minority stressors).

There is a general shift away from interventions 'curing' autism (Cage et al., 2018), albeit some may seek autistic people to behave like everyone else; autistic people can be psychologically 'disabled' by this 'culture and ideology of normalcy' (Milton, 2012a). Consequently, there remain both normative (seeking

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to teach people to be 'normal'; e.g., Gillespie-Lynch et al., 2017; Helt et al., 2008; Rogers, 2000; Sullivan et al., 2014) and maximization interventions (meeting the needs of the individuals, e.g., Lai et al., 2020). Autistic people suffer from the normalization agenda due to the psycho-emotional disablement (Milton & Moon, 2012), possibly depleting their self-image, self-esteem and social position (Jurgens, 2020) in a neuronormative social world. Autistic identities can be stigmatised (e.g., Milton, 2013), so more interventions should meet their needs, and this must be central to any implemented support.

Furthermore, autistic people face discrimination, prejudice and exclusion from epistemic oppression, and testimonial injustice (Catala et al., 2021; Chapman & Carel, 2022). Autistic people are oppressed in a variety of ways, one of which is with their capability as epistemic agents (Catala et al., 2021). This can even be to the extent of autistic testimony being unjustifiably rejected because of prejudice (Chapman & Carel, 2022). Therefore, the voices of autistic people must be central to research; their experiences, lives, and opinions matter and can better identify core, important phenomena relevant to critical autism studies. Cognitive mediation is another pertinent topic. Cognitive mediation could be a protective factor for activistic autists, e.g., understanding the hermeneutic injustice (Chapman & Carel, 2022) (which means the minority group member such as an autistic person does not have the terminology to describe their experiences, i.e., inaccurately seeing inertia as laziness).

All in all, autistic people hold a minority identity, which links to the 'minority stress model' (Meyer, 2003). Botha & Frost (2020) discovered disparities for autistic people's health due to the minority stressors; further

eliciting the minority identity of autistic people, providing evidence of the impact of stressors within their lives. This means all interpretations regarding autistic people must adhere to the cautions these provide.

The Spontaneous Social World and being Autistic

Everyone makes sense of the social world through social relations and social actions (Weber, 2013), and the social world has an ever-changing nature.

Humans spontaneously imbue the world with social meaning: we see not only emotions and intentional behaviors in humans and other animals, but also anger in the movements of thunderstorms and willful sabotage in crashing computers. (Heberlein & Adolphs, 2004)

Spatial matters and imaginaries provide an interesting framework with which to embed understanding of the autistic life. The imaginaries (as a noun) have been discussed by Castoriadis, through the work of Durkheim and in relation to Moscovici's (1963) social representations theory[9] (Nerlich, 2015). For the most part, Castoriadis developed its use in 1950s based on Durkheim's work. Hence, a lot of the thinking is in relation to the collective consciousness (i.e., the individual and society are intertwined) (Nerlich, 2015). Consequently, Castoriadis influenced much of the work and use of the 'imaginaries'. Nowadays, the application of the term has been wide reaching across disciplines, and therefore dynamic and ever-growing. Spatial imaginaries come from social philosophy and

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[9] Moscovici (1963) developed the social representations theory. Much alike labelling theory (Scheff, 1974) but for groups, the social identity formation is influenced by discourse. Moscovici focused more on this discourse creating social objects and through representational development, from which the social identity formed and developed (Wagner et al., 1999).

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human geography. Entrikin (1976) remarks that 'place' is not empirically observable collective objects and events, but "…the repository of meaning." The triadic concept comprises of the perceived (spatial practices, and is materialistic), conceived ("representations of space", and is social or idealistic), and the lived space ("representational spaces", and is the bridge of the others that is about human experiences) (Peet, 2000; Zhang, 2006), which illustrates that space is a social product (Lefebvre & Nicholson-Smith [Trans.], 1991). Hence, spatial imaginary holds the assertion that the "lived experience of a place includes the physical, social, political, and symbolic space" (Lefebvre & Nicholson-Smith [Trans.], 1991). Simply, the place is the life-space for the actors within it (Bailly, 1993). Nerlich (2015) states that, "a spatial imaginary is a shared or collective understanding of a particular space produced in association with the practices of living in that space. Importantly, spatial imaginaries are more than 'just' cognitive frameworks / representations; they structure and co-constitute social practices and have material effects." This suggests that spatial imaginaries are "particular understandings of space … [and the] cognitive frameworks, both collective and individual, constituted through the lived experiences, perceptions and conceptions of space itself" (Lefebvre & Nicholson-Smith [Trans.], 1991). The term is very much related to the concept of 'othering', found in Edward Said's (1978) book *Orientalism*, where he details how the conceptualization of the Orient as 'other' to the Occident has been homogenised through the Western spatial imaginary—which obviously created material objects and social practices.

Thus, spaces are value-laden as detailed above according to spatial imaginaries. Prof George Lipsitz (2007) developed the concept related to race in the United States of America, e.g., white spatial imaginary. He contends that even

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after removing segregative practices, the residual imagination of space remains, leaving a 'contradistinction' (or distinct contrast) from Black space (in this case). In relation to autistic people, the analogy from Lipstiz (2007) regarding, "not all blacks consciously embrace the black spatial imaginary, even though all blacks are subjected to it," is the same as not all autistic people embrace autistic spatial matters, although subjected to it. Similarly, Lipsitz (2011) states that black people are subjected to "…humiliating and dehumanizing segregation … [but can form into an] exhilarating and rehumanizing congregation." With this in mind, the analogy configures similar inquiry regarding forming autistic space: where are autistic people allowed to be? This politicisation of social space can take a multitude of forms, e.g., infantilization, testimonial injustice (where autistic voice is subdued from being knowledge providers), social castration (i.e., their being reduced, being patronised by tone of voice or action, or purposefully evoking social othering, etc.) The analogy further works with Lipsitz's 'white supremacism' being akin to a neuronormative 'supremacism', which is in essence, ableism.

The paradigm

This thesis is not about finding a new intervention, but about furthering the understanding about meeting autistic needs (i.e., maximization) through addressing spontaneity via a globally available hobby or activity in which autistic people can participate. There is an extensive number of interventions for autistic people, of which few are empirically validated (Information Autism, 2022) and even fewer are perceived as acceptable by autistic people themselves (Gillespie-Lynch et al., 2017; Leadbitter et al., 2021; McLaren, 2014). Furthermore, the

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thesis pragmatically adheres to neurodiversity rather than the pathology paradigm (as per the shift in autism research), the biopsychosocial model (as explained above) as well as the cultural model (where applicable).

Next, the focus is on introducing theatrical improvisation and improv comedy. This section will detail similar inter-connecting concepts and conclude with the aims of the thesis.

Theatrical improvisation and improv comedy

The practice of interest is improv comedy (henceforth, this thesis will use improv). Frost & Yarrow (2007, p. 4, their emphasis) define theatrical improvisation as follows:

> [Improvisation is] the skill of using bodies, space, all human resources, to generate a coherent physical expression of an idea, a situation, a character (even, perhaps, a text); to do this spontaneously, in response to the stimuli of one's environment, and to do it *à l'improviste*: as though taken by surprise, without preconceptions.

Improv is a small subset of theatrical improvisation where groups of people perform premeditated or spontaneously created live scenes and songs. There may either be a focus on story-creation or on producing comedic sketches. It is often performed in front of an audience as a comedic (and sometimes dramatic) performance constructed live. Improv uses make-believe, play and pretend, and relies on honesty and commitment from the agents of improv (or improvisers), by being present in the moment and taking risks. Improv is practised around the world in a variety of styles and approaches and is referred to

(often interchangeably) by many terms (e.g., impro, improv and improvisation). At times, the terms used can be confused; nonetheless, in this thesis, the use of theatrical improvisation will usually imply the broader definition (as per Frost & Yarrow's definition above) unless providing other relevant points of interest or uses in research (as determined by the authors of the cited studies).

Improv is the art and craft of spontaneous creation that happens in the moment through games, scenes and songs. However, this is not necessarily any different to the definition of theatrical improvisation, as they are both performing without a script (Chaikins, 1991; Horn, 1991; Mouëllic, 2013; Smith & Dean, 1997) and with no preparation (Cremer, 2009; Halpern et al., 1994; Mouëllic, 2013). However, that this definition is debatable since improvisers, do rehearse; they could be said to be preparing to be unprepared for the exact performance to be presented, performing without preconceptions and through intuition. Improv may ask the performers to visualise and use their imaginations for retrospective meaning creation (understanding the past by justifying and defining it in the present, Sawyer & DeZutter, 2009); and in addition, it emphasises the actor being in agreement, discovering and performing for the audience as a vessel for comedy, taking themselves lightly and acknowledging that the work is improvised.

To provide additional complication, there are numerous art forms that are improvised. Jonathan Fox formed Playback Theatre in New York in the 1970s, performing a format whereby improvisers gain insight into the lives of the audience and reflect this back through artistic expression (Fox & Dauber, 1999). In the same era, Augusto Boal (2000) began using improvisation in workshops and performance for social change and to battle oppression. More loosely, Jacque

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Lecoq (2002) developed a method of clowning that has led to a practice of theatrical clown and improvisation in training and liveness in performance; however, clowns have existed long before this 'modern' era of improvisation, and there is a rich history to this theatrical form (Townsen, 1976). In terms of contemporary practice however, Franki Anderson developed a form of theatrical improvisation called 'fools' (based on clowning) that has been extensively adapted (e.g., by Jonathan Kay and Holly Stoppit, the latter being more closely aligned to Anderson). In addition, thinking more widely, Butoh is a Japanese dance art form that can be improvised, is frequently funny (although, mostly poignant) (Fraleigh, 2010). There are other forms of theatrical improvisation, such as live action role-play (LARP) (Guillery et al., 2022) and even play itself can be theatrical (e.g., social play, Göncü & Perone, 2005).

History of Improv

As can be noted above, the terminology even for those engaged in specific practices is confused. It is worth commenting that despite this historical account of improv being Anglocentric, there are many other countries that built their own improv; some of which have been influenced by the UK. In any case, Jacob Levy Moreno began modern theatrical improvisation in 1911 in Vienna, Austria. He moved to New York, USA in 1927 continuing his work on 'Theater of Spontaneity' (see his book of the same name, 1947). However, Moreno discovered how improvisation would help people as group-based therapy, which resulted in psychodrama therapy (group therapy) (Scheiffele, 2001).

It is commonly thought that improv as has previously been defined, originates in social work through the influence of Neva Boyd's 'recreational play'

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on Viola Spolin in the USA (Wasson, 2017); however, arguably, the concept of 'improv comedy' as a separate artform only truly comes into being as a separate entity when her son, Paul Sills took her work into theatre. At the same time as Spolin's social work, in the UK, Keith Johnstone was constructing his 'Impro System' (coined by Dudeck, 2018).

Ultimately, Paul Sills managed to create a highly successful and profitable sketch-based comedy club using his mother's work[10]. Yet, it should be noted that the success came from sketch and not improv. It is well-known that a key member of Second City, Bernard Sahlins, did not think improv was a performance art in and of itself. It was Del Close that thought otherwise (Close, on his death bed, did, however eventually manage to get Sahlins to agree, even if temporarily, that improv was a legitimate performance art, (Griggs, 2005)[11]. In 1981, Charna Halpern and eventually along with Del Close created a company called iO (originally, improvOlympic, which has its own history with the co-founder David Shepherd; Fly, 2010). Shepherd wanted to create a 'working man's theatre' and was heavily influenced by Bertolt Brecht. He sought this goal for his entire life but had little success (those that worked with him understood possible reasons)[12]. Shepherd was a part of both the history of Second City and iO; neither resulted in what he wanted. Second City did perform improv for an

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[10] For a more in-depth history of improv, it would take a thesis in and of itself, but for the history of the results of Sill and colleagues, please read Coleman, 1991; Libera, 2004; Sahlins, 2002; Sweet, 1987; and Thomas, 2012.

[11] For a history of Del Close, see Griggs, 2005.

[12] A documentary is readily available online for the history of David Shepherd (Fly, 2010).

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audience in their third act, which was after the paid performance – it was free. This is where they tested potential sketch material for the main show in-front of an audience.

Across both the USA and the UK, there are multiple improv 'forms' that have emerged. Terminology can be confusing, but in this instance, 'forms' means the broad categories of performed improv. There is scope to suggest that historically there were three forms: long-form, short-form and narrative. Nowadays, narrative improv is considered part of long-form improv. Further interest is that short-form 'Johnstonian' impro' (an improv style that was developed by Keith Johnstone) is often the influence of narrative long-form. Therefore, it is fair to assert that currently, there are only two 'forms' of improv: long-form and short-form.

It should be apparent that with over 100 years of modern improv history, there is much missed in this account. However, this section provides an adequate background of the history of improv for the purpose of this thesis.

Long-form and Short-form

The two improv forms that remain, as stated already, were not originally the only two forms. Del Close created a long-form format (meaning production or structure) that he begrudgingly called *Harold* (Close did so because he heard that George Harrison from The Beatles named his haircut 'Arthur' in a media interview; Halpern, et al. 1994), and begrudgingly because the format became famous within improv and he hated its name. *Harold* is now perceived as a long-form format, but historically this was not so. Originally, Close's format *Harold*

was not long-form (it was its own form), because narrative improv was separately being taught at iO (as long-form, but *Harold* instigated what is now termed long-form). The forms are simplified nowadays, as narrative long-form and the *Harold* (and all other formats alike it) are classified as long-form. The *Harold* is a key example of non-linear narrative formats that exist. Kozlowski (1998) stated short-form is improv that is segmented into less than 15-minute standalone improvisations, whereas long-form is an interlinking, complete improvisation lasting over 15 minutes. Unfortunately, this is no longer true, as Upright Citizen's Brigade (UCB) began offering long-form 'teams' ten-minute sets, and, similarly, the Comedy Store Players may perform a single game for 15 minutes or more.

Anecdotally, short-form is generally viewed as just games. This is not correct, as those using the 'Impro System' (i.e., *Theatresports*, *Gorilla Theatre*, etc.) in their short-form productions did not always use games. In fact, Keith Johnstone (1999) classified the games as 'fillers'. Nonetheless, short-form works by generally obtaining a suggestion using an 'ask for' (posing a question to the audience to gather inspiration for the improvisation to come) and after performing a scene, story, sketch or game, the performers get some new suggestion from the audience once more. Keith Johnstone's production *Theatresports* is a well-defined spectacle that has various non-actor components external to the order or sequence of events to occur. It includes scenographer (or 'snoggers') and theatre technicians that improvise lights and sound, judges that the audience are incited to boo, and score-keepers (to name only a few) (Stiles, 2017). These roles are a component that creates an aesthetic of the event. Likewise, the ideal implementation of the event is through Johnstone's 'Impro System'; the production is a licenced format that cannot be performed without first gaining the

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rights for it. Nonetheless, many people do a variant to avoid legal ramifications. Similarly, *Match Impro* (founded in Quebec, Canada in 1977 by Robert Gravel and Bruno Lombardo, as outlined in Feral, 1983) is licensed. Both *Theatresports* and *Match Impro* are based on sports and seek to make improv a spectacle much like a sports event. Johnstone used wrestling, which is less noticeable; however, *Match Impro* is based on hockey. The hockey influence is in the visual aesthetics of the production's design (i.e., the use of a hockey rink and team jerseys). However, in both cases, the competition aspect is faked and present only for the entertainment provided., Taking the competition element too seriously is generally frowned upon, as it can damage the quality of the improv (e.g., it becomes non-collaborative, and seeks the 'cheap laugh'). Johnstone designed all his productions (or formats) with flaws to undermine the competition, yet over the years many people have altered the event and therefore weakened the design.

Not all short-form is competitive, and an example of a format without set games and competition is *Grand Theft Impro*. In this format, improvisers perform a obtain ten titles for scenes from the audience and then perform them, crossing them off one by one after they end. Improv productions are often titled by the group and not the format; thus, *Grand Theft Impro*'s production has no title, it is just what they perform now.

Long-form can be stated as a complete, improvised production that has interconnections, whether thematic, character or tangential. For example, the *Harold* encapsulates all long-form (as stated by Close on numerous occasions), as it is about obtaining a suggestion and co-creating a holistic piece of comedic art theatre. Previously, performers were trained in a structure that is now taught as

the format and to which they often must strictly adhere. Intriguingly, many people that knew Close, state how it was never his intention for it to be strictly adhered. Nonetheless, *Harold,* as the structure, interweaves characters, relationships, themes, and worlds into one cohesive performance. The training structure is three sections of three scenes with an opening sequence and a break between the sections using the whole cast in an improvisation (to 'cleanse the audience's palate' or to return to the opening or suggestion afresh).

Various long-form formats exist, which inclusive of linear narrative improvised stories, contains genre-based improvised productions. Long-form formats are meant to teach, just as much as the games devised by Viola Spolin or Keith Johnstone. Johnstone has said that (ideally) he would have new students in-front of an audience to better teach them rather in a classroom. For example, the long-form format *La Ronde*, which is based on the film of the same title, teaches agents (improvisers) to perform multifaceted characters with various relationships. The format the *Bat* (originally a *Harold* in the dark) was designed to focus agents on sound and the theatricality of non-diegetic and non-dialogue input that is possible.

Fundamentally, all improv teachers need students to be able to perform scenes. Whether long-form or short-form, all improvisers need to be able to create a theatrical or staged presentation of comedy or drama.

Pedagogy of Improv

Based on both the history and forms, it is clear that the pedagogy of improv is hugely varied, for example, to teach improvisers to accomplish the

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'impro system' requires a very different pedagogy to teaching them to accomplish the style of a different group, such as Upright Citizens Brigade (UCB). Some students would say that they first learnt short-form improv before 'advancing' to long-form. This may be becoming less true in the UK where people do not necessarily start with short-form nor do they necessarily continue onto long-form, with some people only ever doing short- or long-form. If we account for the socio-political sphere, this adds to the complications (i.e., sexism, racism, etc.). For example, many past students of Del Close would suggest he was sexist, and would alter how he taught (Hicks, 2011).

Benefits of Theatrical Improvisation and/or Improv

Previous research has shown benefits of theatrical improvisation and (at times, more specifically) improv in four key areas that are common in past research and may be able to be found in improv: positive regard for and from improv, community, social and communication skills, and relaxation and mindfulness (e.g., Bega et al., 2017; Bermant, 2013; Bernstein, 2014; Steitzer, 2011). Although there is availability for other themes to be noted, these appear to be the most discussed.

Positivity may come from unconditional positive regard (Bermant, 2013), which creates opportunity for improv to add value to the improvisers' lives. Studies indicate that when engaging in improv, people feel they are being accepted, they suspend their own judgements (DeMichele, 2015), work well together (DeBettignies & Goldstein, 2019). Positivity may come from unconditional positive regard (Bermant, 2013), which creates opportunity for improv to add value to the improvisers' lives. Studies indicate that when

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engaging in improv, people feel they are being accepted, they suspend their own judgements (DeMichele, 2015), work well together (DeBettignies & Goldstein, 2019; Frost & Yarrow, 2007) and they form friendships (Morse et al., 2018; Yamamoto, 2020) that lead to a sense of belonging to a community (Morse et al., 2018; Quinn, 2007). Evidence for needing reduced inhibition of one's own thoughts (bypassing judgement) for successful improvisation was found in Limb & Braun (2008) when jazz musicians' brains did not activate in the related area of the brain when improvising (lateral prefrontal cortex (LOFC)). Better still, this can be broadened to being non-judgmental to achieve improv onstage, improvisers accept themselves and others through positive affect and their creativity comes out of collaboration (or accepting each other's ideas) with one and another (Bega et al, 2017; Sawyer, 2015; Yamamoto, 2020).

The connection between the people engaged in improv develops and strengthen relations that enable a sense of community and a sense of belonging (Steitzer, 2011). Community in its simplest form includes its members having similar knowledge and shared values (Trester, 2012), or common identity, hobby/occupation (Raj, 2016), or shared belief within their everyday practice (Zaunbrecher, 2012) as a community of practice. Communities of practice are groups based on a shared passion with ongoing interactions (Wenger et al., 2002). Accordingly, improv as a community for those around the world is indicated by the common enthusiasm for improv, the development of the art forms, people identifying as (developing) improvisers and adopting practices in the improvisers' lives. Improv can provide a sense of belonging (see Chapter 3), but the social bond that is formed must be maintained to sustain the in-group membership and their sense of community (e.g., cultural references that alienate are counter-

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productive, Fortier, 2010); this can be related to maintaining a trusting working relationship.

Trusting others is a factor that may impact how relaxed agents are onstage and in-class with one and another (see Chapter 3). For this reason, to achieve the goal of live, improvised performances, agents must trust one another and themselves (e.g., DeMichele, 2015; Scheiffele, 2001). In classes, students build trust between themselves because of the teacher's guidance, yet it is equally true that it must occur within themselves (DeMichele, 2015). As for accomplishing comedy, trusting that the teaching works will support people to find funny content (Quinn, 2007), much like Lösel (2018) suggests that trust in the material is an additional requirement. This comes from no wrong answers and everyone's contributions being undertaken (Drinko, 2013), which leads to a felt safe environment (Felsman et al., 2019). So, performers must have trust in the work, their cast members, and the production.

Improv is a unique phenomenon in the modern world. As a knowledge-based society (Stehr, 2015), people have information readily at their fingertips through wireless devices (the social impact of this is both spatial and temporal; Yang, 2007). No one needs to engage in interactions with those nearby since interactions can take place at a global level, nor at the same time one wishes to be in contact with another (Yang, 2007). This is different to what improv requires of those involved, as it functions in real time – live and in the present moment (Smith & Dean, 1997). Thus, a bond can form from these live interactions and the community functions to support well-being (Morse et al., 2018; Quinn, 2007).

On-stage, or in a class or rehearsal room, improvisers must discover, in-the-moment (Fortier, 2010), what will happen; Sawyer (1999) terms this as 'emergence'. Furthermore, retrospective meaning making (Sawyer & DeZutter, 2009) occurs within emergence, as the performers gradually configure the reality, the scene, and the understanding of what has taken place *after* it occurs. Improv can help build social and communication skills (Bernstein, 2014; Boesen et al., 2009; Engelberts, 2004; Krueger et al., 2017; Morse et al., 2018; Watson, 2011), as people become more attentive and actively listen (Steitzer, 2011).

Social and communication skills can offer people the ability to notice more and be mindful to the moment (Bermant, 2013), and thus this practice can achieve a relaxed atmosphere. In practice, there are a number of people using mindfulness in their improv. Kabat-Zinn's mindfulness-based therapy requires an improvisational approach (Kedem-Tahar & Felix-Kellerman, 1996; Shapero et al., 2018). A model of problem finding can be noticed in both improv and therapies (Sawyer, 2000a, 2015); improvisers are bringing awareness to what is true, rather than solving a situation. Overall, this would imply that improv is about reactions and having awareness of the present (Drinko, 2013; Keates, 2017), and of what has been, and thus will lead to what will be (Johnstone, 1989), which are all aspects of mindfulness (Gethin, 2011; Nilsson & Kazemi, 2016).

Improv has been used with various populations with a medical diagnosis, such as breast cancer, Parkinson's disease, dementia, and complex developmental trauma. In their feasibility study, Asher et al. (2021) claim improv to be a novel method to support the QoL and well-being of patients with breast cancer using the Functional Assessment of Cancer Therapy-General (FACT-G), the Patient

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Reported Outcomes Measurement Information System, version 29 (PROMIS-29), and the University of California, Los Angeles (UCLA) Loneliness Scale, version 3. Equally, people with Parkinson's disease enjoyed improv classes and would recommend it, but more importantly the study reports improved daily living according to the Unified Parkinson's Disease Rating Scale (UPDRS) part II (Bega et al., 2017). Similarly, people with dementia have gained validation of their personal experiences (leading to autonomy, and consequent potential for increased self-esteem), enables a positive affect (momentarily), and forms a positive climate, enabling people to have positive experiences (Hafford-Letchfield, 2012; Zeisel et al., 2018). Even for the caregivers of people with dementia, improv helped decrease stress and depression, improve mood, and develop coping skills even when dementia symptoms worsened during their improv training (Brunet et al., 2019). Dunford et al. (2017, p. 425) note that improv (within the cast called 'Memory Ensemble') can "…provoke low levels of anxiety; and then respond by stopping, taking a breath, observing what is happening in the room, and relying on their imagination to come up with an answer that allows them to move forward, with their activity partner, in the moment." They further conclude that people with dementia can become expert improvisers, which negates the stigmatization and the negative discourse around dementia. Similarly, older adults or ageing adults can be stigmatised (Conner et al., 2010; Katona & Livingston, 2000; Keisari et al., 2018). Improv (specifically playback theatre) has been used with this population towards positive outcomes, for example, patients reconnect with their and others' lives; experience self-acceptance, less social isolation, reduced (perceived) stress; and become more playful and spontaneous (Bassis et al., 2022; Keisari et al., 2018, 2020, 2022;

Lindquist et al., 2021). DeMichele & Kuenneke (2021) studied adolescents with complex developmental trauma, finding that through short-form improv the participants' functional connectivity changed (through meaningful connections with others and the opportunity for shifts in neuroplasticity).

Humour is often stated as a coping mechanism, because it is cathartic (DePasquale & Lewis, 2012). This holds that comedy has the function of supporting people or society at large to cope with the struggles of life and the world. Historically, improv has provided coping through deconstructing and challenging the status quo (DePasquale & Lewis, 2012), or in other words coping by activating against the issues (i.e., empowerment). When people feel disconnected from previous coping strategies, agents of comedy are in place to assist (such as clowns in Gordon et al., 2018). After 9/11, improvisers in New York (all agents of comedy) needed one another to support, listen and cry–in this case, community was used for coping before returning to comedy (Quinn, 2007).

Mental health (anxiety) and improv

Mental health is of great interest in this thesis. Mental ill-health has a stigma attached (Hinshaw & Stier, 2008), and societal reaction or labelling theory (Scheff, 1974) of mental health suggests that it is the way in which society reacts to someone's mental state (or ill-health) as deviant which creates the issue (Pilgrim & Rogers, 1999). Therefore, to a point, mental ill-health is a primary deviance (or rule-breaking); however, it seems more the case that mental ill-health blossoms when someone takes on their diagnosis (secondary deviance) (Lemert, 1951), which Garfinkel termed (1956) 'status degradation ceremony'. While this may be true, it is not clear what makes contingencies salient to sustain

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or ignore the label (Pilgrims & Rogers, 1999). Arguably, attending improv sessions to alleviate anxiety could be less stigmatising than therapy (Baumer & Magerko, 2010; Felsman et al., 2019, 2020, 2022; Keisari et al., 2020), especially as improv has been found feasible to implement and appropriate for people with intellectual disabilities and mental ill-health (Fabian et al., 2022). Further work on people with disabilities comes from Hainselin et al. (2019). They measured anxiety, self-esteem, well-being and quality of life, with all but quality of life being and remaining statistically significant at a 10-month follow-up. In addition, it has proven to help with depression symptomology (Asher et al., 2021; Brunet et al., 2019; Felsman et al., 2019; Keisari et al., 2020; Krueger et al., 2017). Ocobock et al. (2020) found significant absorption and cortisol release on days in which people participated in improv (but not on non-improv days), which links to depression and anxiety.

Within this thesis, anxiety will be the key inquiry. An initial investigation about how anxiety may be impacted by improv was made by Dr Alison Phillips Sheesley and colleagues (2016). They theoretically combined therapy with improv to potentially overcome the stigma of disclosing mental ill-health. Since this published essay, studies have identified that anxiety symptomology can be reduced for various populations, such as people with anxiety and/or depression from an outpatient psychiatry clinic (Krueger et al., 2017), breast cancer survivors (Asher et al., 2021), people with social phobia in Detroit schools (to some extent, Felsman et al., 2019), and undergraduate students' tolerance of uncertainty increased (Felsman et al., 2020).

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Improv is an autotelic activity (i.e., one which is completely immersive, provides an optimal experience, and undertaken for its own purpose) (Demarco, 2020). Leary & Kowalski (1995) state that self-presentation oblivion can be derived from autotelic activities or flow, for example, being totally fixated on a film. Indeed, self-presentation oblivion seems integral to social anxiety because it induces a lack of motivation or social awareness that deactivates the possibility of social anxiety. Additionally, improv is other-focused, which is contrary to the self-focus and heightened public self-awareness associated with social anxiety (Leary & Kowalski, 1995). Generally, it is understood that anxiety can be reduced by being pre-occupied with "a non-competitive but absorbing game… [because it can divert attention] from the internal stimuli that otherwise constantly cue state anxiety responses" (Spielberger, 1966, p. 16).

Despite the apparent benefits outlined, it is possible that improv may need a mental health warning as it could cause change in the individual that affects their social relations and estrange prior contacts from their life (Reid-Wisdom & Perera-Delcourt, 2020). This implies that the involvement of mental health professionals could be beneficial or necessary when running improv; yet, it is unclear to what extent this is true, and whether this would be a requirement or advisable for everyone, or for certain populations.

Applied improv

Nicholson (2005) states that applied drama or theatre is theatrical activity that primarily occurs external to conventional theatre organisations and implemented to benefit individuals, communities or societies. Applied drama or theatre is frequently referred to as beginning with Jacob Levy Moreno (the birth

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father of modern improvisation), along with Bertolt Brecht, Jerzy Grotowski, and Augusto Boal (Ristić, 2021). Interestingly, both Moreno and Boal predominantly used improvisation within their work. (see Nicholson, 2005; Moreno, 1947).

There is important historical context of applied drama and theatre. The predecessor, theatre for development, was established in the 1960s and through the 1980s. This had primarily White practitioners attend lower economically developed countries to deliver their applied drama (Kvam, 2012; Nogueira, 2002). This was a problematic practice as it amounted to cultural imperialism (e.g., Srampickal, 1994); a crucial consideration when offering any form of drama to any population is whether as an outsider, the practitioners (or researchers in an academic case) are providing what the community requires through listening to their needs and desires (e.g., being autistic is cultural, Waltz, 2013).

Nonetheless, nowadays applied improv is its own practice (Dudeck & McClure, 2018). Applied improvisation is an umbrella term used from various disciplines that implement a practice of theatrical improvisation (theories, games, techniques, and philosophies) (Dudeck & McClure, 2018).

As aforementioned, none of the studies within this thesis are designed to be applied improv; however, the results of engaging in improv will have natural applications (of which is addressed in Chapter 8). This thesis focuses on understanding autistic needs through spontaneity with improv being a globally available hobby or activity in which autistic people can participate.

Theoretical framework of benefits from improv for autistic people

Research in this field has limited theoretical links between autism and theatrical improvisation. For example, Lerner & Levine (2007) suggest that theatrical improvisation fits various perspectives of autistic people, such as a cognitive model where improvisation can *develop* perspective-taking, or a model of central coherence and improvisation that may *develop* autistic people's use of global processing (i.e., using the integrated whole). They further suggest the scope for theatrical improvisation to offer social pragmatics (non-verbal communication) and social performance (e.g., implementing social knowledge; Gabriel et al., 2016) and the use of their preferred topics. Moreover, it is possible to form basic links from acknowledging autistic voices and addressing elements of the diagnostic criteria. Addressing the DEP (Milton, 2012a) and the need for autism acceptance are some of the main goals of autism advocacy work (Broderick & Ne'eman, 2008; Hughes, 2016; Kapp, 2018). Improv can address this through inclusive groups, expression in the arts and the acceptance that is fundamental to the improv art forms (Bega et al., 2017). Communication between autistic and PNTs might potentially develop using improv, as the art forms increase people's abilities to be clear and effective in their interpersonal skills (Bernstein, 2014). In any case, improv develops flexibility and spontaneity (Hainselin et al., 2018) due to its implicit nature. Therefore, it is worthwhile to provide and explore such potential opportunities for autistic people. In particular, improv has been found within non-autistic populations to significantly decrease anxiety (Felsman et al., 2019; Krueger et al., 2017; Sheesley et al., 2016). This could have important implications for autistic people as anxiety is commonly experienced (e.g., Spain et al., 2018; White et al., 2015).

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Some autism interventions use improvisation even if not identified explicitly as part of the intervention. For example, the Socio-Dramatic Affective-Relational Intervention (SDARI) involves getting the participants to improvise in the moment (Lerner & Levine, 2007). Therefore, the rationale behind the use of improvisation must exist and the suitability of improvisation can be researched. Improv can be linked to the social pragmatics of daily living that can develop the social perceptions of participants (DeMichele, 2015; Fu, 2018). What is more, engagement can align the physiological response (Sheesley et al., 2016) and cognitive psychological processes (Hainselin et al., 2018) to the underlying intentions behind activities and philosophical core of improv.

Thesis aim

The goal of social science research should be to ameliorate people's lives through developing knowledge that informs policy and practice, which subsequently has a direct impact on the lives of those studied. This could be by evolving understanding about QoL, well-being, or how people may improve their self-compassion, self-knowledge, or discover coping strategies previously unknown. This remains true for autistic people. Therefore, the goal of this thesis is to improve autistic lives and QoL through disseminating the findings from the research. Furthermore, it will mean not adopting neuronormative conceptualisations of autistic people via implementing research suited to the neurodiversity paradigm, e.g., not adopting a medical narrative that seems to lead to ableism (Botha & Cage, 2022).

The aim of this thesis is to explore the benefits of improv for autistic adults, in particular how it impacts anxiety. In doing so, it will be necessary to

develop an increased understanding of autistic people via the means of the readily available activity of improv. This means that there is a need to better understand autistic people in order to improve their lives, such as to reduce anxiety. Without this exploration of the reason for the gains, the findings about benefits may be hollow. To elaborate, it is integral to the thesis that all chapters (where applicable) contextualise and embed experiences of improv within lived experience, and through academic literature and concepts (that reflect the contextualization and embedded autistic experiences).

There are two main research questions that underline this research. These are:

- What benefits can autistic people gain from improv?
- In particular, does improv reduce anxiety for autistic adults?

This thesis is split into Part 1 and Part 2. Part 1 reports on studies using retrospective data, whereas Part 2 will detail a study of autistic participants new to improv. In the next chapter, past literature will be investigated to gain a better understanding of the context and background to the topic through relevant literature. In doing so, insight on previous implementation of wider theatrical improvisation with autistic people will be examined.

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Part 1: Understanding improv comedy and in relation to autistic people

2. Chapter Two – Scoping Review

Introduction

The first step in answering my research questions 'what benefits can autistic people gain from improv comedy?' and 'does it reduce anxiety?' was to review relevant literature.

It is proposed that in order to answer the key research questions guiding this thesis, there is a need to build on the current knowledge regarding theatrical improvisation and autistic people. Therefore, this chapter reports on the examination of this literature to gain a better understanding of the landscape of past studies and texts.

Generally, there seems to be a paucity of research on improv that is relevant to autistic people. Consequently, there is a need to explore the value of improv as a whole as well as to identify the value of individual elements and the mechanisms underlying any impact. To date, only Maas (2019) includes a stand-alone literature review on this area of interest; however, it focuses on occupational therapy and improvisational theatre and is not a full review systematically identifying all research and synthesising findings. Other authors, such as Gabriel, Lerner, Guli, and Corbett all include non-systematic literature reviews of varying lengths in their reports of studies and other writings.

This review investigates all relevant research on autistic people's use of improv, and in addition, its use as an intervention. The purpose of the scoping review is to understand the use of improvisation in a theatrical context and to

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identify the strengths and any gaps in current research. The following questions guide the data extraction of the scoping review:

1. What research already exists related to the use of improv with autistic people?

2. How has improv previously been used in interventions, whether evaluated or not?

3. What are the gaps in the current research?

4. What does previous research or studies around interventions using improv tell us about potential areas of impact or outcomes for autistic people?

Methods

Study Design (stage 1)

A scoping review conducts searches to inform a knowledge synthesis (Colquhoun et al., 2014). They can explore the size, range, and characteristics of the evidence for any topic (Tricco et al., 2018). This review uses the methodology of the Joanna Briggs Institute (JBI) (2015), which states that scoping reviews are chosen when mapping the key concepts of an area of interest from a breadth of sources. However, unlike systematic reviews, they do not assess the quality of the studies (Levac et al., 2010).

This review follows the adaptations of Arksey & O'Malley's (2005) framework by Levac et al. (2010). Levac et al. (2010) which advanced the methodology by creating a six-step procedure to ensure detail and precision in the process of implementing the review (as per reported methods).

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Search strategy / Identifying Relevant Studies (stage 2)

The search was conducted using three electronic bibliographic databases: CINAHL, MEDLINE, and PsycInfo. Key terms were selected to locate all relevant papers. They were "autism", "anxiety", "improvisation", "theatre", "comedy", in addition to any appropriate synonyms, including forms ("forum", "playback" and "commedia"). Boolean operators were used ("AND, "OR", and "N2", the latter being near x word by a maximum of two words away, and to ensure the terms were relevant to one another). An example of the use of Boolean operators is improv* N2 comed* OR theat*. The initial records were retained for further review if any appropriate term was present. The search was conducted between 12 and 15 April 2021.

To ensure no omissions of relevant papers, further searches were conducted using Google Scholar and through extensive bibliography and author searches. Older papers that were not available online required contacting the journal via email to manually search for anything relevant. Similarly, contacting the key authors supported the insurance that all available texts were collected.

Table 1.

Inclusion and Exclusion Criteria

Inclusion Type	Criteria
Geolocation	All

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Age	All
Diagnosis	Autism, Asperger's Syndrome, PDD-NOS
Publication Type	Peer-reviewed journal articles, Books, Reports
Concept and Intervention Type	Performative, character-based, theatrical improvisation (including play, role-play, and forms of theatrical improvisation), excluding non-human interface, therapy, music and dance

Data sources, studies sections, and data extraction (stage 3 and 4)

The inclusion and exclusion criteria (see Table 1) provided the boundaries for this review. All forms of therapy[13] were excluded for a number of reasons: i) all therapy is improvisational in nature; ii) the overwhelming amount of data would engulf the findings over examining theatrical improvisation, thus limiting synthesis; iii) therapy provides a medical perspective, and this would subsume the findings with deficit-based perceptions of autistic people. Other forms of theatrical improvisation, such as dance and mime are also removed from character-based improvisation. Studies or texts that used scripted theatre and that clearly stated character-based improvisation was used, were included. Using the above criteria,

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[13] The concept of therapy was identified either by the author of the study stating it was such, or as the public defines the term in its broad, generic sense. For instance, treatment meant to relieve or heal the client without drugs or operations (Collins, n.d.).

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the number of initial reviewed papers and texts was reduced from 966 records to 100. Duplicate studies were removed, and titles and abstracts were read to locate relevant texts using these criteria (see Table 1 and specific reasons noted in fig. 2). A total of 100 records met the criteria for a full-text review. The total number of articles ultimately included was 32 (fig. 2).

Fig. 2.

PRISMA flowchart (modelled on Moher et al., 2009)
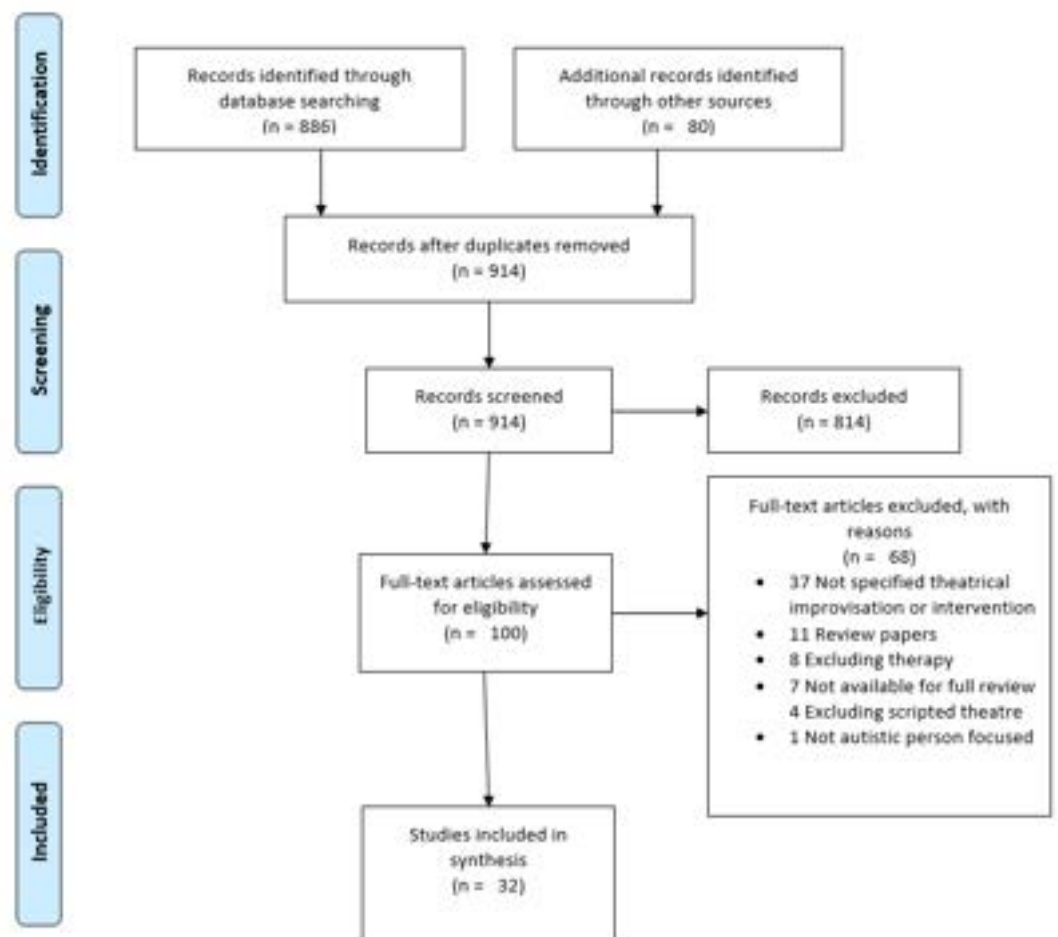
The fourth stage of the scoping review framework was extracting and organising the data. Being informed by the neurodiversity paradigm meant that data was identified in relation to the fundamental principles. Moreover, this framework

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influenced the organisation of data and how the findings have been reported; for example, it is less easy to identify if autistic people can play or can learn to play due to the dependency on normative constructs of play. For each included paper, the following data were extracted: age; sex; diagnosis; number of participants; research design and focus; the methods used; expected outcomes; measures implemented; comparison groups; and limitations or weaknesses. Their findings (both qualitative and quantitative) were recorded in the same table in Microsoft Office Excel (version 2013). Because of the substantial variation in the nature of the collected data, it was not possible to synthesise the numerical data; however, these data were extracted for qualitative synthesis.

Data analysis (stage 5)

The fifth step in the framework is to prioritise the data that answer the research questions and use a numerical summary. Furthermore, both Arksey and O'Malley (2005) and Levac et al. (2010) suggest organising the data into themes. Therefore, to accomplish a complete view of how theatrical improvisation has been used with autistic people, qualitative content analysis was conducted on the literature (as per the JBI's methodology, 2015). The procedure used was based on Bengtsson's (2016) decontextualization, recontextualization, categorisation, and compilation. Decontextualization was applied through initial notes and thoughts on each text. This was then recontextualised by inserting the data into the extraction table (forming codes from this collation of data). Thereafter, the codes were categorised and compiled into themes.

Community involvement (stage 6)

Finally, Levac et al. (2010) suggest using a (community) stakeholder group to check findings and reach a consensus on accuracy according to their interpretation. For this review, the stakeholders were an autistic cohort contactable online via email, recruited via university and social media. They confirmed that the findings of the review matched their experiences and understanding of the literature.

Results

The use of theatrical improvisation with autistic people

The form of improvisation differed across the various forms of texts: play, impro(v), process or creative drama, comedy, live action role-play, playback theatre and clown all featured. In all cases, some form of spontaneous creation was implemented such as spontaneous play, characterisation, scenes, retelling of someone's story through enactment, or a clown routine.

The concepts of remediation and liberation were two key factors identified in the literature, with either the focus on remediating a 'participant's perceived 'deficit', or freeing the autistic person to be themselves or play as they desired. Of the texts reviewed, 81% focused on the remediation of autistic participants in some way (e.g., training social skills). All texts could be interpreted within this dichotomy, meaning that 19% were seemingly focused on liberation. Similarly, eight of the texts (25%) concerned theatrical improvisation as art. Consequently, the majority of the studies focused on remediating or intervening with autistic

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people to address deficits, instead of the art of theatrical improvisation being explored for liberation or for its art with autistic people.

1   **Table 2.**

2   *Descriptive characteristics and findings of included papers (n=32), separated into empirical (1-15) and descriptive (16-32)*

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
1	Beadle-Brown et al. (2017), UK	Participants were diagnosed with autism – (n=22, 18 males, 4 females) Age (M = 9.00, 8.90, 9.70 per school)	Pre- and Post-feasibility study (empirical)	ADOS; VABS; faces task; and parent and teacher evaluations (Likert)	Mixed significance findings about communication and socialisation development, yet emotional recognition improved (but not significant at post-intervention) No significant changes in make believe, except on module 3 (ADOS)

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
2	Corbett et al. (2016)	Participants were diagnosed with autism – (n=30, 24 males, 6 females) Age (M = 11.27 [EXP], 10.74 [WLC])	Within- Between- (empirical)	ADOS; WASI; ABAS; SRS; group play; equipment play; memory of faces (immediate, delayed); Theory of Mind contextual; ERP; NEPSY; and PIP.	Social and communication skills development as an outcome, including cognitive empathy
3	Corbett et al. (2019), USA	Participants were diagnosed as high-functioning autistics –	Randomised Control Trial	NEPSY; Social Cognition (ERP); Incidental face	Social and communication skills development as an outcome, including cognitive empathy

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		(n=77, 59 males, 18 females) Age (M = 11.12 [EXP], 10.58 [WLC])		memory (EEG); PIP; ADOS-II; and WASI.	Participants engaged in more make believe through cooperative play
4	Dogru (2015)	Participant was diagnosed with autism – (n=1, female) Age 6 years old	Single-case study (empirical)	PKBS	Social collaboration, interaction, independency, and total social skill posttest points showed percentage increase
5	Fein (2015), USA	Participants were diagnosed with autism or Asperger's Syndrome –	Ethnography (interviews and	Thematic Analysis	Themes generated were 'structure and social coordination in game', 'narratives of the game: romances

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		(genders were not reported)	observations) (empirical)		of light and shadow', 'the specificity of community', 'Patrick's tribe: roleplay and the spectrum of neurodiversity'
		Age (Range 11 – 18)			
6	Guli, Semrud-Clikeman et al. (2013)	The diagnosis was not clear, but the book mentions autism, non-verbal learning disability and ADHD in its introductions – (n=34, 31 males, 8 females) (prior to	Within- Between- (empirical)	SSRS, baseline; BASC; DANVA2; Observed social interaction (partial interval recording); and parent and child interviews	Social and communication skills development as an outcome

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		attrition)			
		Age (M = 10.97)			
7	Ioannou et al. (2020), USA	Participants were diagnosed with autism – (n=77, 59 males, 18 females)	Randomised Control Trial	STAI and PIP	Social and communication skills development as an outcome, including empathy
					Participants engage in make believe through group play
		Age (M = 11.12 [EXP], 10.58 [WLC])			Participants had a decrease in anxiety through a supportive environment

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
8	Kempe and Tissot (2012), UK	Participants were diagnosed with autism – (n=2, 2 females) Ages not reported, but were school-aged	Case Study (empirical)	Diary and written documentation	Social and communication skills development as an outcome, including use of metaphors Clear development in engaging in make believe using masks and movement
9	Lerner and Levine (2007), USA	Not Reported	Qualitative-descriptive (empirical -mostly non-empirical)	Evaluations and feedback (including Notes from Home section)	Social and communication skills development as an outcome, such as making friends Students stated experiencing less depression

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
10	Mendez-Martinez & Fernandez-Rio (2019), Spain	The three groups of participants were diagnosed with Asperger's Syndrome – (n=11, 1 male, 1 female, 9 NR) Age (Range = 12 -18 years)	Multiple-Case Study Design (empirical)	Interviews and Diaries	Social and communication skills development as an outcome, including expressing oneself and being accepted without judgment Personal development included taking risks, de-stressing, and gains in motivation and self-esteem. Participants developed skills in make believe

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
11	Mpella et al. (2016), Greece	Participants were diagnosed with autism – (n=6, 4 males, 2 females) Age (M = 10.60 years)	Case Study	Social and Play Skills checklist observation; WISC-III; and CARS	Social and communication skills development as an outcome, including empathy and emotions Participants engaged in make believe through imaginative contributions Participants were able to improve their anxiety

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
12	Müller et al. (2008), USA	Participants were diagnosed as high-functioning autistics, with Asperger's Syndrome or PDD-NOS – (n=18, 13 males, 5 females) Age (M = 34.60 years)	Open-ended semi-structured interview (empirical)	Thematic Analysis	Social experiences and support alleviate social anxiety and improv social connectedness

The use of creativity and improvisation are similar to how PNTs cope with stress |
| 13 | Semrud-Clikeman et al. (2013), USA | Not Reported | Qualitative-descriptive (empirical -mostly non-empirical) | Evaluative feedback | Social and communication skills development as an outcome

Autistic children were calmer after the intervention |

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
14	Solomon (2012)	The participant was diagnosed with autism – (n=1, 1 male) A three-year old	Case Study (empirical)	Greenspan's Developmental Profile; Functional Developmental Level progress chart	One participant improved in his ability and the complexity of his play
15	Trudel and Nadig (2019), Canada	Participants were self-identifying as autistic or having a social-communicative disorder – (n=7, 6 males, 1 female)	Cohort Study	Self-rating of social communication and self-regulation skills; Relatives rating of social communication and self-regulation	Social and communication skills development as an outcome, including emotions Participants felt acceptance without judgment

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		Age (M=23.43, Range = 17 - 32)		skills; EQ; R-Pass (social skills)	Participants improved their self-confidence and gained personal development and emotional well-being
16	Alana and Ansaldo (2018), USA	Case examples were diagnosed with autism, mood disorder, and learning disability – (n=4, 3 males, 1 female) Age 17-years (n=1)	Qualitative-descriptive (non-empirical)	None	Social and communication skills development Could make believe within the improv activities

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
17	Amador (2018), USA	Not Reported	Qualitative-descriptive (non-empirical)	None	The improv games were designed to help autistic people to make believe
					Social and communication skills development as an outcome, including recognizing emotions
					The games sought to help personal development and coping skills
					Collaboration and teamwork and enabling cognitive flexibility

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
18	Conn (2017)	Not Reported	Qualitative-descriptive (non-empirical)	None	Social and communication skills development as an outcome, including understanding and empathising with others Participation was designed to enable make believe (participating in theatre)
19	Davies (2004), USA	Not Reported	Qualitative-descriptive (non-empirical)	None	The design and structure to the intervention was for inclusivity and accessibility

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					Participants were treated as a group
20	Drinko (2013), USA	Case examples were diagnosed with autism – (n=2, 1 male, 1 female) Ages were not reported	Qualitative-descriptive (non-empirical)	None	Social and communication skills development Improv reduced their anxiety, and they were less self-conscious by investing in others
21	Feinstein (2016), USA	Not Reported	Qualitative-descriptive (non-empirical)	None	'Actionplay' was empowering and had acceptance not judgment

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					Participants could make believe using their interests
22	Guli, Wilkinson & Semrud-Clikeman (2008), USA	Not Reported	Qualitative-descriptive (non-empirical)	None	Social and communication skills development as an outcome, including expressing their emotions and normalising their feelings about meeting new people

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					The design included personal development, such as gains in self-control
					Developing skills at make believe, with taking risks and group cohesion.
23	Gutstein, & Sheely (2002)	Not reported	Qualitative-descriptive (non-empirical)	None	Developing peer play, flexible thinking, adaptation and rapid, joint improvisation

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
24	May (2017), UK	Case examples were diagnosed with autism – (n=9, genders were not reported) Age (Range = 13 - 16)	Theoretical practice-based research (empirical)	None	Some participants were anxious to participate but were able to create comedy and laugh during the classes.
25	Murray (2011), England	Participants were diagnosed with autism Age (Range 11 - 16)	Qualitative-descriptive (non-empirical)	None	Autistic children had their own games, the facilitator (Paul) realised he should join them – not force them to join him Enabling one autistic student to sit until peers enticed him to join and

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					thrive in improvising with the group
					A teacher within the school wrote acknowledging his underestimation of the autistic students
26	Schneider (2007), USA	The diagnosis in the case example was not clear, but the book focused on Asperger's Syndrome	Qualitative-descriptive (non-empirical)	None	One participant enjoyed make believe after engaging in the activity

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		children – (n=1, 1 female) Age was not reported			
27	Shaughnessy (2012), UK	Participants were diagnosed with autism – (n=10, but their gender was not reported) Age (Range = 5 - 10)	Qualitative-descriptive (non-empirical)	None	Social and communication skills development, including empathy The participants acknowledged the reality and fantasy and engaged in make believe
28	Shaughnessy (2016), UK	Case examples were diagnosed with autism – (n=22)	Theoretical practice-based	None	Social and communication skills development

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
		Genders and ages were not reported	research (Sullivan, 2009) (empirical)		Participants engaged in make believe through the use of objects
29	Sherratt and Peter (2002), UK	The child's diagnosis in the case example was not clear, but autistic children were the sole focus of the book – (n=6, 4 males, 2 females) Ages were not reported	Case Commentary (non-empirical)	None	Using Prescribed Drama Structure form, autistic children were more able to make believe (according to play stages)

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
30	Trimingham (2013), UK	Case examples were diagnosed with autism – (n=2, 1 male and 1 female) One participant was reported as 11 years old	Theoretical practice-based research (Sullivan, 2009) (empirical)	None	Social and communication skills development with using joint action Participants engaged in make believe
31	Trimingham (2017), UK	Case examples were diagnosed with autism – (n=4, 2 males, 2 females) Ages were not reported	Theoretical practice-based research (Sullivan, 2009) (empirical)	None	Social and communication skills development, including shared engagement and affective empathy

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Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					Participants gained better well-being through enjoyment
					Participants engaged in make believe
32	Trimingham and Shaughnessy (2016), UK	Case examples were diagnosed with autism – (n=2, 1 male, 1 female) One participant was reported as 11 years old	Theoretical practice-based research (Sullivan, 2009) (empirical)	None	Social and communication skills development, including empathy
					Participants displayed less distress and reduced stimming behaviours

Study No.	Study	Participants	Research Design	Dependent Measures	Relevant Findings
					Participants engaged in make believe and displayed their imagination

Note. ABAS = Adaptive Behavior Assessment System; ADOS = Autism Diagnostic Observation Schedule; BASC = Behavioral Assessment System for Children; CARS = Childhood Autism Rating Scale; DANVA2 = Diagnostic Analysis of Non-Verbal Accuracy, version 2; EQ = Empathy Quotient; ERP = Event-Related Potential; Developmental; EXP = experimental group; NEPSY = NEuroPSYchological Assessment; PDD-NOS = Pervasive Developmental Disorder, not otherwise specified; PIP = Peer Interaction Paradigm; PKBS = Preschool and Kindergarten Behavior, Scales Form B; SRS = Social Responsiveness Scale; SSRS = Social Skills Rating System; STAI = State-Trait Anxiety Inventory; VABS = Vineland Adaptive Behavior Scales; WASI = Wechsler Abbreviated Scale of Intelligence; Wechsler Intelligent Scale for Children, version 3 = WISC-III; WLC = wait-list comparison group

Interventions, evaluation and research gaps

Study Design and Participants

Of the 32 texts, 15 studies empirically evaluated some form of theatrical improvisation intervention (see studies in Table 2[1-15]). 17 of the papers (53% of the included texts) described an intervention, did not present any data, or only presented anecdotal data[16-32], but commented on the intervention design or implementation.

23 of the included papers reported a sample size of n = 338, with 35% of the 23 papers included between one and three participants. Nine papers[1-3,6,7,10,12,27,28] had a sample size of ten or more participants. 27 of the 32 studies included children under the age of 18 years, but two studies[18,28] included adult participants (M_{age} 12.80 years, range 3 – 62). Eighteen papers[1-4,6-8,10-12,14-16,20,28,29,30,32] reported the gender of the participants (only the binary of male = 228 or 75% and female = 75 or 25%). Information on diagnosis was available for 21 papers[1-3,6-12,14-16,20,21,24,27,28,30-32]. 22 had participants diagnosed as autistic, with seven papers (including overlap) identifying Asperger's Syndrome or pervasive developmental disorder not otherwise specified (PDD-NOS) as diagnoses. Nine chapters within books about autistic people had no diagnosis reported. This identifies the sample size as a possible issue, with adults as an under-represented population, and mostly males recruited in this body of research.

Intervention Type

The information about the extent of the use of improvisation was unclear, meaning there is a gap in research specifically exploring theatrical improvisation.

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Of the 32 texts, five studies[10,16,20,23,26] focused on improv. Less than 20 percent of the studies discussed the 'Imagining Autism' project[1,15,27,28,30-32] (n=6). Three studies[6,13,22] (9%) focused on the 'Social Competence Intervention Program' (SCIP), and another three studies[2,3,7] (9%) reported on the SENSE Theatre intervention.

Nine interventions[2,3,6,7,11,13,22,24,26] used additional time or people to support the outcome. These entailed using non-autistic peer-group support, video modelling, and homework. Home assignments had parents support the practice outside of the sessions, similar to the demonstration of desired outcomes from peer support and video modelling.

Considerations about the Studies

There were two key areas of considerations about the literature reviewed. Firstly, only 14 papers were empirical evaluations looking at the impact of theatrical improvisation in any form. 18 papers did not present any data, or only presented anecdotal data, but commented on the intervention design or implementation. Secondly, the information about the extent of the use of improvisation was unclear, meaning there is a gap with research specifically exploring theatrical improvisation.

Potential areas of impact or outcomes for autistic people

Eight studies[1-4,6,7,14,15] used measurement instruments; three of those [1-3] used the Autism Diagnostic Observation Schedule (ADOS); and the remaining five papers used a variety of tools to assess outcomes according to their focus (see Table 1). Most studies focused on communication and social skills[1-4,6, 8,9,11-13,15-19,21-

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[23,26,29] (n=20; 63%). Three papers[20,29,30] focused on cognition and cognitive skills. The remaining nine papers had a unique focus (e.g., anxiety).

Further analyses, beyond descriptive analysis, were conducted using content analysis. This generated four themes: i) autistic people can engage in make-believe; ii) the common outcome is social communicative skills; iii) improvisation promotes the acceptance of self and others, and not judgement; and iv) improvisation promotes personal development and emotional well-being. Themes were generated across all the studies, regardless of whether they focused on theatrical improvisation as art or intervention.

Autistic people can make-believe

The elements of make-believe, creativity, and imagination were present or developed in 22 papers[1,3,5,7,8,10-12,14-18,22,23,25-27,29-32]. The operationalisation of these concepts was not reported, but more informal impressions instead (i.e., layperson understanding of these concepts). Noticeably, these were reported across texts on theatrical improvisation as an intervention and art.

Autistic participants played[1-3,5-7,12-14,17,21,25,27,28,30,32] and pretended[1,8,13,14,17-19,24,27,28,31] or were provided opportunities to play during the intervention sessions. Improvements in ability and complexity of play were observed following sessions[3,8,14,17,29]. Participants became increasingly more invested in the pretend[30-32], which led to the ability to bend the rules of the game to play for play's sake[31]. Some interventions were designed for participants to engage in cooperative co-creation and ideation[19,22,25]. One study described how the researcher (Murray) had to learn that his autistic group was already playing, and then join in with them[25].

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Murray determined that no one should have to 'prove' their skills at playing or improvising, which led him to the conclusion that some people may not get diagnosed because of their capacity and ability to play.

Some studies reported that autistic people's imagination develops through interventions[10,11,13,17,25,27] and that autistic people become more socially and cognitively flexible through the games and interventions used[9,10,16,18,19,23]. Although, one paper[1] found no significant changes in creativity, Mendez-Martinez and Fernandez-Rio[10] found that creativity developed through spontaneity, and that it increased autistic participants' imagination.

A common outcome was social communicative skills

An increase in social communication skills were found to be common outcomes of the texts, including empathy and emotion. Changes in social and communication skills in general were found in 20 papers[1-7,9-13,15,17,18,22,23,25,27-32]. Six studies formally measured related constructs[2,3,6,7,11,15] (see Table 1). Seven papers[7,9,11,15,17,22,25] proposed possible developments in joint attention and improved expression through verbal and nonverbal communication.

Participants' socialisation has been reported to improve in a variety of ways: being accepted, knowing the other participants (and their autistic identities)[15], being part of the group (for both the practitioner and peers[10,28]), and because of the safe, positive environment[7,15]. Developments in reported social functioning were identified by give and take in communication[6,17,22]. The ability to better assess and respond to socially ambiguous situations, understand themselves and others, and grow in social competence was asserted to be due to

intervention designs[17,22]. Moreover, participants were reported to seek social contact with confidence that led to friendships[7,11]. Of particular note, Müller et al.[12] found social experiences and social support alleviated social anxiety and improved social connectedness.

The findings from the research in the review included improvements in the recognition and use of emotions and (affective and cognitive) empathy. Affective empathy is an unconscious response to another person's emotional state (Davis, 1983), whereas cognitive empathy refers to understanding others' thoughts and feelings without a sense of familiarity with it (Mazza et al., 2014). Three studies found that cognitive empathy develops during interventions[2,3,8], for example, group effects on ToM have been reported[2]. In three papers[27,31,32], affective empathy improved during the interventions. In one study, a circumstance arose with woodpecker eggs that indicated signs of empathy when the eggs were stolen to the researchers[31] (however, this was not measured because of the nature of arts-based research).

It was found that the recognition of emotions may improve throughout the interventions; for example, there was a significant change from baseline to follow-up, but this was not noticeable post-intervention[1]. Similarly, this was the case with Playback Theatre, where autistic people needed to understand life stories and empathise with them, convey inner feelings and use pretend actions to elicit feelings[18]. Using a safe space (asserted by the authors) can help people share their feelings, and this was constructed to help people interpret and express emotions[5,7,15].

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Improvisation promotes the acceptance of self and others and not judgement

The promotion of acceptance of oneself and others and not judgement was found to be a theme across 22 papers (69%)[1,5,7-10,12,13,15-19,21,22,24,25,27-30,32] (which the authors did not formally assess due to the various disciplines within the research). This theme includes empowerment; choice and control; non-judgmental participation; acceptance of being autistic, of other people (including autistic individuals) and their needs and interests. Here, interventions, and specifically improv are found to have been empowering[10,20]. Using an unpressurised approach may have emboldened the participants to be active[25,29], for example, through choice and control, and the use of non-judgmental participation, acceptance[1,10,15,25] and allowing any form of involvement[19,25,27,30,32]. Non-judgmental involvement meant that people's ideas were not rejected[25,29]. In Fein[5], autistic differences were accepted and supported as an asset in LARP and were not stigmatised; Fein[5] identifies that their role-playing mirrored their lived experience.

Although initial anxiety occurred, after creating and meeting accurate expectations by notifying the autistic child of the plan and setting the parameters of the events to follow (that were abided), it was possible for the participants to thrive[1,24]. However, in Davies[19], the children were often unaware of their participation beforehand, or what it would entail, thus increasing worry and lack of engagement. The interventions required a supportive environment[5,7,15,16,19] and met the needs, at least in part, of the participants[1].

During the sessions, people forgot the outside world and the usual external judgments that came, for instance, from parents and teachers who were noted as

underestimating their child's or pupil's capabilities[16,25], due to both PNT and autistic people displaying their more peculiar personality[8]. By having no right or wrong, the participants were free[8] and eager to join in with activities within the interventions[1,13,16,30]. Accepting one's differences seemed to build self- and autistic identity (including autistic culture[5]), which formed expressivity and amalgamation of the group's voice. The participants' integration into the session included using their preference for objects[28], which progressively led to social connections and affection[27].

People's enjoyment and the possible relaxing nature of theatrical improvisation led to engagement with interventions[10,17]. Some autistic people thoroughly enjoyed improvising plays[18]. However, it should be noted, however, that not all autistic people will be suited to acting[19].

Improvisation promotes personal development and emotional well-being

Lastly, theatrical improvisation appears to promote personal development and emotional well-being (these were not all measured, but were instead informal impressions). In 20 papers (63%), participants' personal development, enjoyment, or gains in well-being can, or does, improve from the intervention[4-7,10-13,15-17,19-22,25,26,29,31,32]. An intervention was described to foster self-management skills in the autistic people by facilitating their ability to go beyond their usual boundaries[16]. Participants' personal development, self-esteem, control, and confidence improved with better communication[6,7,10,16,22], which may lead to reduced inhibition and self-judgement[19]. Less self-consciousness was stated as reducing anxiety and stress while increasing spontaneity more broadly[16,20]. With all aspects of any given moment being accepted during an intervention,

participants were better able to have a positive mentality[10] and harness their autistic identity for mutual support and sharing coping strategies[5]. It was suggested that theatrical improvisation can be used as an outlet to alleviate stress and increase social interactions (similar to PNTs[12]). Social anxiety may lessen with mastery of social skills[14].

Interventions using theatrical improvisation appeared to support better well-being, possibly helping to develop coping skills, reduce negative self-talk[17] and improve self-control[22]. Taking risks, de-stressing, gains in motivation, and improved self-esteem were the benefits of theatrical improvisation[10]. Likewise, participants were calmer after the intervention[13] and increasingly less distressed during the intervention[31]. Similarly, theatrical improvisation may reduce anxiety and self-consciousness, create opportunities to invest in each other[5,20], and lead to less depression[9]. Two studies reported significantly decreased anxiety[7,11].

Coping occurred by increasing self-control, calmness, and building strategies for ambiguous situations[6,19,22]. Furthermore, voicing issues and experiences of negative role-playing situations seemed to help[5,6,13,22]; in addition, some interventions normalised the feeling of having difficulties in meeting new people[10,22]. People learned from unsuccessful moments, with failure being important, as taking controlled risks seemed to defuse anxiety and stress[10,16,26,29].

Discussion

Key findings

This review set out to explore how theatrical improvisation has been, or is currently, used with autistic people and what has been its impact. One of the key

findings of this review was the lack of research in this area. Most papers that have specifically focused on theatrical improvisation were primarily opinion pieces or descriptive in nature (e.g., Alana & Ansaldo, 2018). Those that included an evaluative element tended to include theatrical improvisation as an element of a wider intervention or program (e.g., Socio-Dramatic Affective-Relational Intervention; Lerner & Levine, 2007). This means that separating the impact and role of theatrical improvisation specifically is not possible (Research Questions 1 and 3).

Studies that evaluated an intervention or program which included an element of theatrical improvisation had methodological limitations (Research Questions 1, 2, and 3). Overall, some studies used very small samples (some of which were by design) and there was a lack of detail provided about participants. Similarly, there were limitations in other ways, such as gender bias. There was a small number of autistic females and a lack of non-binary autistic individuals. In addition, the predominant use of children in the studies, limits understanding for autistic people, as generalisation is not possible in an adult population. One reviewed paper, Trudel & Nadig (2019), helps with generalisation in part, yet it is limited by a small sample. Regarding the certainty of whether theatrical improvisation itself is related to changes, there were only three papers including comparison groups. More studies are required before a systematic review of the literature is useful.

This review has limitations in addition to those within the papers. First, only studies in English could be synthesised. Second, the exclusion of therapy restricted the potential inclusion of papers that used the term, which disabled the synthesis of

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all papers on certain interventions (i.e., SENSE Theatre). Similarly, some papers that should have used theatrical improvisation based on other reports of the same intervention do not mention its use (i.e., SDARI). Third, there is friction within the review regarding the choice to include texts on both theatrical improvisation as an art and as an intervention, especially with more literature on theatrical improvisation as an intervention. Even so, the flaws of this approach are outweighed by the gains in scoping the literature for a broad understanding of this under-researched topic.

Despite the limitations of the studies and the review itself, a number of interesting and potentially important findings have emerged. The discussion will focus on autistic personal development and autistic skills across both theatrical improvisation as an art and intervention. These topics will be discussed aligned to the neurodiversity paradigm, which influences what has been deemed important. In any case, the qualitative themes were spread across papers, including those focused on remediation and liberation, or as an intervention or art. This is noteworthy due to the possibility of interpreting theatrical improvisation of holding these benefits regardless of how it is implemented.

Importantly, the community stakeholders agreed with the findings of this review, commenting on their experiences of these topics in relation to improvising or being creative in their life; gaining a sense of belonging; and offering possible reasons that the findings may not fit all autistic people.

Autistic personal development

Inter-individual and intra-individual heterogeneity are important to state, as many skills or abilities could be experienced more diversely than non-autistic people. For example, there can be substantial diversity in communication and imagination abilities among autistic people, and diversity in these abilities within a given individual. These could include but are not limited to as a reaction or response to the day, or day-to-day fluctuations in mood, needs, or situational context.

Buntinx (2013) identifies that people with disabilities may have personal affordances that enable access to daily living activities or tasks. They could also have affordances that assist them. Autistic people may have differences that they find impairing, that these affordances overcome. However, sometimes the afforded strategy may fail, potentially due to systemic barriers, e.g., reduced usual affordance due to being overwhelmed by the day's environment and requirements, as per Murray et al.'s (2005) theory of Monotropism. As Buntinx (2013) suggests, the opposite of disability is not positive personal functioning, and positioning the idea of support within disability is counterproductive (i.e., the opposite of disability is not a singular ability or a societal norm of abilities). Therefore, a strengths-based approach, whereby people set personal goals and use their strengths has merit; accordingly, this means addressing the person and not the disability and contextualising an individual's needs and goals (Urbanowicz et al., 2019). One key component is quality of life and well-being (Buntinx, 2013), the findings of which indicate that theatrical improvisation may have value (i.e., personal development, as per Schalock et al., 2002).

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Going "full autistic" in improv: reduction in anxiety and other benefits

Theatrical improvisation appeared to promote personal development, confidence, and well-being (Research Question 4). This connects to the idea of Perkis et al. (2019), who discuss how mindfulness may benefit autistic people. In accordance with Kabat-Zinn's (2013) definition of mindfulness, theatrical improvisation fits, because it requires both focus on awareness through consciously paying attention, and being in the present moment without judgement. This review found that the possible valuable outcomes of theatrical improvisation may occur through developed coping skills and strategies (e.g., reducing negative self-talk, which may lead to improved well-being and self-esteem). In general, cognitive strategies can be used for better self-management (Unsworth & Mason, 2012); this could include constructive thinking patterns and mental rehearsal, as found in the review. In addition, theatrical improvisation may help in forming and investing in social connections (e.g., building new friendships noted in the review; Alana & Ansaldo, 2018) and communication (i.e., as suggested in the review, leading to better personal development, self-esteem, and self-confidence, which seemed to enable a decrease in self-judgment, Davies, 2004). As such, it could help with being less self-conscious and inhibited. Many of the reviewed papers suggested that by being less self-conscious, autistic people may increase their self-control and calmness (Davies, 2004; Guli, Semrud-Clikeman, et al., 2013; Guli et al., 2008). This connects to Bermant (2013), who suggests that theatrical improvisation exercises the group mind, meaning that the individual is less prominent than the collective whole pursuing a goal (i.e., group flow is sought). This mutual obligation to one and another supports people to be less inhibited and reduces their self-judgments, as they must focus on the ensemble (or others) over themselves. As suggested in this review, this may lead to a reduction in social anxiety and

depression (Müller et al., 2008; Lerner & Levine, 2007). Furthermore, the ability to take risks within an environment made relatively safe may reduce anxiety and stress by using failure as opportunistic learning (e.g., a positive framing strategy and a form of social rehearsal). Likewise, role-playing and the freedom to voice any issues may enhance some autistic people's experience.

Empowerment of 'othered' bodies, such as autistic people, is an important endeavour (Alkhaldi, 2019; Botha et al., 2020; Cage et al., 2018b; Milton, 2012). Theatrical improvisation, at least in part, seems to have managed this. By reducing the pressure of everyday life and/or needing to be correct, autistic people may be more able to participate actively. The two enabling factors are choice and non-judgmental approach. Providing choice in this instance means participation in the intervention specifically as a presented choice, as not everyone (including autistic people) enjoys theatrical improvisation or drama. A non-judgmental approach (i.e., not being or feeling rejected) is fundamentally about acceptance, and where there is no right or wrong in the theatrical improvisation or the intervention; there is no perceived rejection of their ideas or the person. In addition, the reviewed literature suggests that the reduction of the stigmatisation (as defined by Goffman, 1963) is through demonstrable similarities; in other words, instead of polarising autistic people for their differences, theatrical improvisation presents people as similar 'oddballs' instead. This may aid autistic people to momentarily forget past external judgements. This further included normalising autistic people's feelings of worry while meeting new people, which seemed to have supported building positive self-identities and connecting with others (including non-autistic peers), reaching beyond their previous own boundaries and beyond the external world's (including their teacher or family's) restrictive expectations. Therefore, theatrical

improvisation might help manage the social world and spontaneity of life (McDonald, 1979). It is possible that this is best practised through relevant improvisational training and in the appropriate environment. As Attias (2020) indicated, art can support expression and self-advocacy. Theatrical improvisation might offer life skills in the form of self-management and provide a better future for autistic people with increased well-being and reduced anxiety.

As suggested in the review, being accepted for who they are can lead to a positive mentality, as reflected in Cage et al. (2018a). It is a safe, positive, and supportive environment that people need, which includes helping each other.

Autistic skills and abilities (play, social and communication skills)

The outcomes highlighted the skills that autistic people are *not meant to have* due to their diagnosis (research question 4). However, these skills can be elicited or exist naturally if the right environment is provided (i.e., attitudinally and physically). Therefore, there is an important underlying context to understand when acknowledging autistic peoples' skill development.

Make-believe was achieved by the participants in the included papers. Play is clearly achievable, potentially because participants were allowed to play or develop skills. Autistic creativity has previously been depicted through deficit terminology (Craig & Baron-Cohen, 1999; Turner, 1999). Research usually suggests a lack of creating the 'impossible' or not having an imaginative presentation in creativity (Scott & Baron-Cohen, 1996; Low et al., 2009) and a preference for reality-based creativity (Craig & Baron-Cohen, 1999). However, according to the review, their make-believe may differ from PNTs but not as a

deficit (Roth, 2020). Regardless of the conceptualisation of autistic people, some of the included papers found developments in creativity and imagination, and that autistic people improved their play, pretend, and make-believe skills through taking part in theatrical improvisation (research question 4).

Most studies have focused on social and communication skills (Research Question 4). This focus was potentially predominant because most of the included texts focused on remediation. The reviewed texts provided mixed evidence that theatrical improvisation may lead to the development of social and communication skills. If social skills developed, it seemed to require being accepted; getting to know others; being within the in-group (including non-autistic peers, e.g., minimal group effect; Carr, 2003); being in a safe, positive environment; and increased social cognition (via communication reciprocity); all of which could be found without it being a theatre or improv-specific intervention. Nevertheless, the way in which autistic people socialise may not be the same as the way in which PNTs socialise and communicate in life (e.g., Casartelli et al., 2020; Crompton et al., 2020; Idriss, 2020). In the reviewed papers, autistic people's communication skills advanced, which is exactly what would be expected for interventions that are themselves reliant on effective communication, as these advances also occur for their PNT counterparts (Bernstein, 2014; Boesen et al., 2009; Engelberts, 2004; Krueger et al., 2017; Morse et al., 2018; Watson, 2011). This suggests that these outcomes would possibly be found regardless of whether the papers were on an intervention or art. In any case, a comparison of communication development between autistic and non-autistic participants is beyond the scope of this review. Nonetheless, autistic people seemed to similarly develop as per past literature, which may be due to theatrical improvisation or interventions using improvisation.

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The included papers with outcomes on empathy and emotions showed improvements in autistic people (Research Question 4). However, it is unclear whether these changes should be perceived as accurate (e.g., Gillespie-Lynch et al., 2017; Harrison et al., 2022), i.e., measures need to be constructed from the autistic people's perspective to ensure that it measures the *autistic* construct (Harrison et al., 2020). Theatrical improvisation seemed to support developments in understanding and employing empathy and emotions, yet this may promote negative discourse and not a realistic perspective of autistic reality (e.g., Bagatell, 2007; Rieffe et al., 2021; McKenzie et al., 2021; Woods, 2017; Woods et al., 2019).

Future Directions for Research

The use of theatrical improvisation across these papers is highly diverse from play to Playback Theatre. Therefore, in attempting to discover the use of theatrical improvisation regarding liberation or as an intervention, it is not currently possible to know its exact value for autistic people beyond the broad overview from this current review. More research is generally required on the concept of theatrical improvisation for liberation. In addition, reports of its use and how it has been embedded in interventions could be perceived as vague. Studies need to assess its efficacy and effectiveness for autistic people to ascertain the benefits and whether this operates the same within an intervention using improvisation. To assist in understanding the functionality of theatrical improvisation, a comparison group is needed, for instance, text-based theatre compared to improvisational theatre. Furthermore, to determine what aspects of the interventions work, it will be important to clarify their validity in future evaluative empirical research. These must be specifically used and stated as theatrical improvisation (or improv, if

specifically this form). Likewise, by dissecting the interventions, we can understand the specific functions of different components, for example, by querying what laughter does and how gelotophobia (the fear of being laughed at) impacts participants.

Further research is required to evaluate this potential impact (e.g., anxiety, self-management, and social masking). More generally, of interest could be whether improvisers believe mindfulness is a key aspect of their practice, and if so, whether this can be applied to autistic people. Finally, autistic skills in cognitive flexibility seem possible through the implicit requirements of improvisation and could hold value for autistic people.

Conclusion

There is a clear need for further research in this area. Several articles reviewed identified a potential need for the acceptance of the entire person and their needs, including their cognitive style; the impact of which would be to allow, autistic people to feel free to be themselves, therefore reducing their inhibition and feel liberated from the social burden of a PNT world. Theatrical improvisation can be empowering in this manner, and could be an equaliser for PNT and autistic participants. Increasing autistic people's coping, self-management skills, and enabling failure and risk may help with anxiety and stress and provide a better quality of life.

The following chapter investigates the perceived benefits of improvisers around the world. This will dis/confirm the proposed benefits found in the literature on wider theatrical improvisation.

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3. Chapter Three – The Benefits of Participating in Improvisational Comedy: A Global Survey

Introduction

The previous chapter showed further research is needed into theatrical improvisation and autistic people, including specifically improv. Having argued that there is a potential need to accept the 'complete person', it is possible to surmise how this could relate to a sense of freedom and liberation to be themselves for autistic people, or from the *PNT* social world (i.e., increasing rumination and self-judgement). As a result, it may be that the relationship between agents of improv is a key consideration, such as trust and feeling relaxed with other improvisers.

The next step to answering the guiding questions of the thesis (see previous chapters) was to understand the scope of previously believed benefits of improv for a global population of improvisers. Therefore, this chapter reports on the perceived benefits experienced by improvisers around the world formed from past literature on the wider theatrical improvisation. These benefits upon which will dis/confirm the global, Anglo-speaking perspective, will indicate the prominence (or lack) of these benefits from improv. The chapter will report the discussion about the practice of improv and contextualise it within the arts. This is crucial in establishing what benefits can be gained from improv across the world.

In the next two chapters, the exploration of improv will enable a later comparison and interpretation of autistic experiences. Therefore, in order to

understand what is possible for certain populations of people, a pathway through what is generally experienced is required. In addition, by adopting a global approach, the development of knowledge about improv and in relation to autistic people can contribute through acquiring a breath of understanding more than a depth of knowledge about a small sample of people. This supported identifying what of the broader literature on theatrical improvisation match agents of specifically improv.

This study aims to empirically explore the perceptions and experiences of those who are using improv in practice and whether the findings match those from previous research. In particular, this study will explore whether the types/domains of benefits found in previous research are replicated with this global sample: added value, socialisation and communication, a sense of community, and a sense of relaxation. There is currently no existing tool for exploring these issues and so, in addition, this study will also develop and test a tool for measuring perceptions and experiences related to improv.

Specifically, it will investigate:

1. The reliability and validity of the specially designed measure.
2. Differences in perceptions and experiences by demographic characteristics such as gender, disability (e.g., autism, ADHD, long term health conditions, etc.), ethnicity and geographic location.
3. The benefits of improv and whether the findings are consistent with the past research for a global population of improvisers (improv) (dis/confirming past research).

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Methods

Participants

A total of 195 respondents were recruited online through social media from around the world; 45% of respondents lived in North America, 35% in Europe and the rest in Oceania (7%; avoiding the confusion between Australia as the country and continent, this alternative term has been used), Asia (6%), and South America (6%). 128 respondents were able to complete the survey; five people did not meet the inclusion criteria, and sixty-two people did not complete the survey, potentially because of a language barrier. The respondents' mean age was 41.52 years (range: 18-74; SD = 12.11). The binary gender split was close to equal, with 52% males and 45% females. 2% of the respondents identified as non-binary. Most of the respondents were non-disabled (87%) with 9% self-identifying as disabled. Most people were Caucasian (80%), and the rest of the respondents were Hispanic or Latino (7%), Black or African American (3%), Asian (6%) and 'other' (3%). Over half of the respondents had at least a bachelor's degree, with 40% having completed a master's degree and 7% a doctorate. The respondents had been improvising for an average of 9.36 years (range: 1-47; Q1: 1-3, Q2: 4-5, Q3: 6-14, Q4: 14 and over).

Measures

The Keates Improv Comedy Survey (KICS) was constructed based on research literature on improvisation. Through piloting the questions with 12 participants, the survey gained face validity. Content validity was gained by asking three academic experts with knowledge of the field to assess the survey.

The conclusion was that the survey functioned as designed and was relevant and accurate to the constructs being questioned. Furthermore, the expert panel was requested to comment on the structure of the survey and assess the clarity of the questions (face validity).

The survey asked 31 questions of which 26 questions where about the four possible domains of interest. Further to this, there was a question measuring trustworthiness of others to help provide clarity about how often the respondents felt trust in their scene partner and its context (e.g., being a member of a cast or being a guest in a performance). Respondents rated themselves using 7-point or 10-point scale (dependent on the designed purpose of the question), for example, from 1 ("Strongly Disagree") to 7 ("Strongly Agree"). For the analysed questions, see appendix B. The survey contained other qualitative components presented in Chapter 4.

An exploratory factor analysis and confirmatory factor analysis were conducted on the data to determine the fit of the questions to their proposed domains. This resulted in nine questions remaining, which included one for positivity (improv added value to my life), one question per social and communication skills, two questions on community, and two questions on relaxation. This removed all questions on mindfulness within improv. All four domains showed high internal consistency scores in the sample ($N = 128$) (Cronbach's alpha: added value to my life (positivity): .91; social and communication skills: .90; community: .82; relaxation: .87).

Procedure

After gaining ethical approval from the university Research Ethics Committee (19th March 2019), an online survey was fielded over a 5-months period in the summer of 2019 using Qualtrics. After being notified about the survey through online social media platforms, participants reviewed the survey's information and consent page and consented via opting-in to complete the survey. Participants answered a series of 31 open or closed questions related to their improv experiences (positivity, community, social and communication skills, and relaxation), including in-depth demographic information (e.g., gender, place of residence, and years engaging in improv).

Data Analysis

The statistical analyses were performed in the Statistical Package for the Social Sciences (SPSS) software, version 25. Descriptive statistics (Frequencies and Crosstabs) was used to identify whether participants confirmed the benefits of participating in improv or not (Research Question 3). Non-parametric statistics evaluated effects of demographic data and other comparisons of the domains of interest (and other exploratory tests; Research Question 2). The Mann-Whitney-U (used for two independent variables) or Kruskal-Wallis test statistic (used for more than two independent variables) examined perceived developments or changes by the participants due to improv with Mann-Whitney post-hoc tests where required. Due to some tests performing multiple comparisons, the use of a Holm's corrections was applied, as this was deemed to gain power over the Bonferroni method (Haynes, 2013).

Results

Context of improv for the respondents

To better understand the context in which people engage in improv, the survey asked about the respondents' terminology for their practice (e.g., impro, improv, or improvisation). The most common term used is 'improv' (42%). In addition, respondents used 'improv theatre' (13%) and 'improv comedy' (10%). This is likely to be due to the high quantity of North American respondents, as other continents are anecdotally known to use impro (e.g., South America). This survey found only 9% of respondent used 'impro'. The terms used could be numerous, as respondents were free to list all their terms for their practice. A small percentage of people (almost 1% each) use applied improvisation, comedy, comedy improv, comedy sports (which relates to a specific format / production, "ComedySportz"), improv player, spontaneous theatre, long form, and short form (the last two are the two main 'forms' with an increasingly looser definition over recent years). Slightly more respondents (just over 1% each) stated improv comedian, theatre, actor, and answers that were a joke (e.g., word jazz). Other responses stated improviser (6%), improvisation (6%), and improvisational theatre (3%). Most people (67%) used terminology that could be neutral in its meaning in relation to the debate on improv being 'theatre' or 'comedy'.

Characteristics of their improv

This survey found that 31% of improvisers had been engaging in improv for up to three years (based on quartiles of all respondents). There was 20% of respondents participating in improv between three and five years. The next

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quartile was those engaged in improv between five and fourteen years (25%).

There was 24% of respondents participating in improv for over fourteen years.

Only seven respondents did not provide this information. The spread of years in improv is predominantly towards the lower end (as presented by 76% of respondents having participated for under 14 years). This could impact the scores in later comparisons. Nonetheless, the insight is new and provides useful knowledge about improvisers globally.

Most respondents engage in improv twice a week (31%). Only a few of the people would participate in improv more than four times a week (collectively 12%). Most people rehearse improv (31%) and perform (29%). Teaching classes (21%) and taking classes (15%) were smaller percentages of respondents' main method of engaging in improv. Only a few respondents mostly produced improv events (5%).

When asked about the level of trust the respondent had in their scene partner, the majority of respondents (77%) stated they trusted their partner most of the time based on the qualities they themselves provided (see Chapter 4). Conversely, only 7 respondents stated never or sometimes trusting their scene partner.

Impact of participation in improv

Improv has added value to most people's lives (98%, see table 3). Furthermore, the majority of people felt that improv provided improvements to their socialisation (76%), as only 16% stated neither agree or disagree and 7% disagreed. Likewise, most people agreed that it improved their communication

(86%), as 9% neither agreed or disagreed and only 5% disagreed. Similarly, there appears to be a sense of community and kinship in improv, as most respondents felt they enjoyed the company of others (91%) and they wanted the same thing (77%). Only 3% stated neither agree or disagree to enjoyment, and 6% disagreed. There were 17% that stated they neither agree or disagree with wanting the same, and 6% disagreed. For the last proposed domain, the median score of relaxation when being a member of the group was 8. Therefore, most people (53%) felt that they were relaxed in their own group 80% of the time or more. The remaining respondents (47%) said that they were relaxed in their own group 70% of the time or less. For not being a member of the group, most people felt relaxed 70% of the time or more (median score 7) (56%), and the remaining 44% felt relaxed 60% of the time or less. Conversely, most people felt relaxed more often than not (60% of the time and above; 83% and 67% for in their own group and being a non-member, respectively). However, it is important to note that the questions about mindfulness did not correlate and has not been analysed any further.

Table 3.

Percentages of impact of improv domains

Domain	Percent		
	Agreed	Neither agreed nor disagreed	Disagreed
Improv added value to my life	98	1	2
Socialisation	76	16	7
Communication	86	9	5

Enjoy the company of other improvisers	91	3	6
Wanting the same as others	77	17	6

Relationships and associations between demographic characteristics and domains

Gender, ethnicity, and continents.

Table 4 below presents the median ratings (with the minimum and maximum ratings) for each domain for the perceived impact of improv and for trustworthiness by gender, ethnicity and geographic location (continent). For gender, there were only 3 people who had identified as non-binary and so statistical analysis compared only male and female respondents. There was no statistically significant result for gender, ethnicity or any differences between the three geographic locations on any of the impact domains or the trustworthiness rating.

Table 4.

Median scores on perceived impact of Improv and trustworthiness of improve partner by participant characteristics – gender, ethnicity and geographic location

		Gender			Ethnicity			Geographic location			
		Male	Female	Z-Score	Caucasian	Other ethnicity	Z-Score	Europe	North America	Rest of the world	*Kruskall-Wallis H*
	N	66	57		101	25		44	56	25	
Median ratings (min-	Added value to their life	3.00	3.00	-1.54	3.00	3.00	-0.58	3.00	3.00	3.00	1.16
	Socialisation	3.00	3.00	-1.59	3.00	3.00	-0.88	3.00	3.00	3.00	0.90

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max) on	Communication	3.00	3.00	-1.56	3.00	3.00	-1.17	3.00	3.00	3.00	0.36
Impact	Enjoying others	3.00	3.00	-0.67	3.00	3.00	-1.18	3.00	3.00	3.00	4.97
of	Wanting the same	3.00	3.00	-0.22	3.00	3.00	-1.56	3.00	3.00	3.00	5.33
Improv	Relaxation (company member)	2.00	2.00	-0.85	2.00	2.00	-0.02	2.00	2.00	2.00	0.36
	Relaxation (guest)	2.00	2.00	-1.08	2.00	2.00	-0.10	2.00	2.00	2.00	1.92
Median score (min-max) on trustworthiness		3.00	3.00	-0.37	3.00	3.00	-1.40	3.00	3.00	3.00	2.03

* = p<0.05 ** = p<0.01 *** = p<0.001

Improv terms used

Terms used to mean improv can vary over the world, but generally are reduced to three. Of interest is whether the term itself implied comedy, theatre or is neutral. However, this does not indicate the user's belief (of the term) about their practice, as they could use the term with either comedy or theatre only in mind and not distinctly noticeable in the word or phrase itself. There were no differences between the terminology used and the rated impact of improv domains and the trustworthiness of partners. Nonetheless, the interesting, potential influence of North America on Europe could be indicated by the use of comedy-based terms (27% and 14%, respectively), as no other continent uses comedy or any implying terms. Similarly of interest, South America uses theatre-based terms more than other continents (63%). More data is needed to fully understand this phenomenon between continents and its implications on people and the improvisational art forms.

The terms used (impro, improv, improvisation, mixed use of terms) could have helped to indicate differences in respondents' belief about improv. Owing to the possibility that there may be an association between the terms used and geographic location/continent this was explored using a chi-square analysis. However, due to low numbers in some cells this analysis was seen as invalid. Comparing improv to any other terminology provides no transparency over possible variance. Crosstabs data does identify that no North America respondent solely uses impro, and improvisation is not used as much as other terms (not including respondents using mixed terminology) (see table 5). More data is required to gain further clarity on this matter.

Table 5.

Number and percentage of respondents using terms (impro, improv,

improvisation, and mixed terms) by continent

Continent	Impro		Improv		Improvisation		Mixed Terms	
	N	%	N	%	N	%	N	%
Europe	7	18	23	59	3	8	6	15
North America	0	0	37	77	3	6	8	17
Global South	1	5	12	63	3	16	3	16
Total	8	8	72	68	9	9	17	16

Characteristic of their Improv

Table 6 presents median scores (with the minimum and maximum ratings)
for each domain for the perceived impact of improv and for trustworthiness,
according to how the respondents mainly participated in improv (activity).
Trustworthiness was the only statistically significant result. Those that performed
had a higher mean rank score (31.39 and 34.53, respectively) than those that took
classes and taught (21.03 and 28.40, respectively). Using a Mann-Whitney U
post-hoc test, the results found were statistically significant and the difference
between the activities was a small effect ($r = -.44$ and $-.26$, respectively). A
Holm's Correction suggests only the result for performing compared to taking
classes ($p = 0.01$) was still a significant result.

Table 6.

Median scores on perceived impact of Improv and trustworthiness of

scene partner by participant characteristics – improv involvement

		Primary Type of improv involvement					
		Attends classes	Teaches	Performs	Rehearses with improv group	Produces improv events	*Kruskall-Wallis H*
	N	19	27	35	39	6	
Median score (min-max) on Impact of Improv	Added value to their life	3.00	3.00	3.00	3.00	3.00	6.98
	Socialisation	3.00	3.00	3.00	3.00	3.00	3.80
	Communication				3.00	3.00	1.65
	Enjoying other	3.00	3.00	3.00	3.00	3.00	5.86
	Wanting the same	3.00	3.00	3.00	3.00	3.00	4.28
	Relaxation (company member)	2.00	2.00	2.00	2.00	2.00	3.48
	Relaxation (guest)	2.00	2.00	2.00	2.00	2.00	4.64

Median score (min-max) on trustworthiness	3.00	3.00	3.00	3.00	3.00	10.76*

* = p<0.05 ** = p<0.01 *** = p<0.001

Relaxations Compared to Ratings of Scene Partners' Trustworthiness (and vice versa)

Table 7 illustrates trust as a significant result for socialisation, communication, community (both enjoying others and wanting the same) and relaxation (both within a company and as a guest). After a Holm's Correction only enjoying others (p=.03) was still a significant result (most of the time or always mean rank= 61.71, half of the time mean rank= 49.86). Similarly, a Holm's correction of comparing most of the time or always with sometimes or never trusting your scene partner suggests that socialisation ('most' mean rank= 53.50, 'sometimes' mean rank=31.43, p=0.03), enjoying others ('most' mean rank= 52.83, 'sometimes' mean rank= 40.64, p=0.03), wanting the same ('most' mean rank= 54.01, 'sometimes' mean rank= 24.50, p=0.00) and relaxing as a company member ('most' mean rank= 53.56, 'sometimes' mean rank= 30.57, p=0.01) are still significant. All effect sizes were small. Lastly, there was no significant differences between those that rated sometimes and those responding with half of the time they trusted their scene partner.

Table 7.

Median scores on perceived impact of Improv by trustworthiness of their scene partner

		Trustworthiness of scene partner			
		Never or just sometimes	Half the time	Most or all of the time	*Kruskall-Wallis* *H*
	N	7	22	95	
Median score (min-max) on Impact of Improv	Added value to their life	3.00	3.00	3.00	5.35
	Socialisation	2.00	3.00	3.00	6.82*
	Communication	3.00	3.00	3.00	3.63
	Enjoying others	3.00	3.00	3.00	9.15*
	Wanting the same	2.00	3.00	3.00	14.47**
	Relaxation (company members)	1.00	2.00	2.00	9.69**
	Relaxation (guest)	1.00	1.50	2.00	6.63*

* = p<0.05 ** = p<0.01 *** = p<0.001

It is possible to indicate that trust leads to increased relaxation, as well as relaxation invoking trust within the improvisers. The respondents appear to have increased levels of trust when they are more relaxed both in a

company and as a guest. The Mann-Whitney U-value was found to be statistically significant $Z = -2.58$, $p < 0.05$, and the difference between the being relaxed 50% of the time or less versus 60% of the time or more was small ($r = -.23$) for being a guest. Likewise, respondents within a company were statistically significant $Z = -2.20$, $p < 0.05$, and the difference was small ($r = -.20$).

Discussion

Key findings

This study sought to explore improvisers' perceptions and experiences from around the world and map these to the practice described in the existing literature. Previous research has indicated that improv should add value to people's lives, provide a sense of community or belonging, develop their social and communication skills, and help with feeling relaxed (Bega et al., 2017; Bermant, 2013; Engelberts, 2004; Lobman, 2005; Steitzer, 2011). There are a few key findings to this study. Nearly all respondents agreed that improv added value to their life, over three quarters responded that they developed social skills, nearly 90% developed communication skills, over 90% enjoyed the company of other improvisers, and nearly 80% felt they wanted the same as others in their improv (Research Question 3). 83% of respondents felt relaxed more often than not in their own group and 67% of respondents were relaxed being a non-member or guest in a group. 77% of respondents trust their scene partner more often than not. Although the survey suggests improvisers find value in improv, it must be considered in-line with their continued involvement in the art form. Thus, the value may be the reason why they continue to participate in improv, whereas

those that no longer are involved could state otherwise. As per Research Question 1, it is important to note that the survey functions both reliably and validly in its final form after testing.

Notable considerations when discussing these results are that nearly a quarter of the respondents were new to improv (under 3 years), with people usually engaging in improv one or two times a week. A key finding is that there is no difference of respondents' perceived impact of improv on the stated domains or trust between binary genders (Research Question 2, as with the following findings). Nor are there any differences between ethnicities or continent of residence. The continents that use comedy-based terms are North America and Europe (in relation to possibly not seeing comedy as a genre of theatre). South America uses more theatre-based terms than other continents. No respondent in North America used the term impro. This relates to respondents across all continents mostly using the term 'improv', which possibly is neutral in its meaning.

Respondents' practice is an area for insight (their perception of improv, their activities, and themselves in their engagement). Performing improv increases the trustworthiness of their scene partners over predominantly taking classes or teaching. Respondents enjoy others more when they trusted their scene partner most of the time or always and not half of the time (rating sometimes or never was not significant). Socialisation, enjoying others, wanting the same as others, and feeling relaxed within a company had increased ratings when the respondents trusted their scene partner most of the time or always and not sometimes or never (there was no significance to trusting others half of the time).

Relaxation both within a company and as a guest lead to more trust in their scene partner.

The benefits of improv

Improv provided added value to people's lives. Respondents had a positive regard for improv, which suggests that those still engaged in improv remained doing so because they liked or found pleasure in participating. Improv has been found to have a positive impact on various aspects of life: business and organizational improvisation (whereby applied improv practitioners support companies to implement a business culture of improvisation; Gao et al., 2015; Hadida et al., 2015), and personal life (e.g., laughter increases social bonds leading to being a part of a community or similar; Fortier, 2010). Therefore, this may imply other domains investigated in the survey could be aspects of the added value.

Improv provides unconditional positive regard (Bermant, 2013), which could derive from the 'Yes, and' mentality (accept and build upon the moment, oneself, and each other's ideas; Krueger et al., 2017). This leads to positive affect between people (Bega et al., 2017), which provides a good environment with the foundation of acceptance of oneself and others. Hafford-Letchfield (2013) found improv formed a positive climate, and it enables people to have positive experiences (Boesen et al., 2009). For instance, improv had a beneficial influence for social change (accepting older people; Yamamoto, 2020). This could be due to it lessening defensiveness, as people in agreement (accepting with an unconditional positive regard) in turn leads to less self-conscious playing (Drinko, 2013). Being in a co-creative, open environment can lead to added value

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from mutual support. This built ability to work well together and spontaneously express oneself (i.e., social functioning) theoretically help people be successful (DeBettignies & Goldstein, 2019). Therefore, it could be positivity and added value from improv originates from building self-concept (DeBettignies & Goldstein, 2019; Schwenke et al., 2020), having a positive affect, and viewing and perceiving others with unconditional regard. It is common to hear improvisers suggest that "if everyone had a day of improv, especially our politicians, we would be a better world" (Mills, 2019).

A sense of community can be obtained from participating in improv activities. Spolin's work was designed to build community (Steitzer, 2011). Improv is meant to not only teach people to build community, but to form a social-communicative bond: group mind. This bond may solidify kinship and the enjoyment of each other's company through the mutual, shared experiences. An improv group is of one mind and are a collection of individuals, which form a collective that is better than the sum of its parts (Quinn, 2007).

These groups mix and connect as various inter-related and merging communities, to which people can associate and belong. As Raj (2016) signifies, there are numerous ways to view community; improv is more associated with community as identity (improviser) or occupation (or hobby in this case; engaging in improv). Trester (2012) views belonging to an improv community as member socialisation, which means being a member requires the correct social and illustrative knowledge (membership to the community is demonstrated by the existence of referential knowledge about improv, local practices, knowing other performers' work, and having valuable, shared skills). All of which can be

viewed on a macro- and micro-level (global to town). Improv communities may be described as aligned to a community of practice, because of their shared belief of the everyday improv praxis (Zaunbrecher, 2012). Communities of practice are groups of people who share a passion on a topic (or a set of problems) and deepen their knowledge through ongoing interactions (Wenger et al., 2002). Interestingly, in improv, the community (or subsets thereof; groups) is not necessarily sharing problems, but finding problems (as suggested in Sawyer, 2000; 2015). Therefore, a passion for engaging in discovery and problem-finding may inform daily living.

Nonetheless, wanting the same is more the shared and similar understanding, and joint sense of identity that may derive from the community of practice; it can be seen that they gain a sense of belonging through joining their in-group. It could be a provision from a local community (the locality including any distance willing to be travelled by the improvisers, e.g., in England, improvisers may travel from Nottingham to Birmingham as a local community of Midlands improvisers). Community could be globally and more specific; for example, Comedysportz has its own global improv community for those that play in this production, which in turn forms a bond, shared identity, and community of practice through similarities of those that understand what this production requires from the casts, and the approach to how they must improvise.

Improv is connected via the same means that the modern social world is – people can engage one another online. Community has lost its territoriality originally due to the size of populations (metropolisation) but furthered by the mass growth of broadband and mobile data usage (Chatterjee & Koleski, 1970). Furthermore, people travel all around the world for improv events. In this respect,

locality is not an aspect of community when it comes to improv. During the pandemic of COVID-19, online improv events increased; improvisers were able to take classes and perform with people from all around the world.

The development of communication skills can occur due to engaging in improv. The communication of improvisers demonstrates their skill at understanding human behaviour, culture, and relationships (Fortier, 2010). This implicit need is due to (dependent on style) the need for absolute clarity. In improv, the need for communication between the characters and the improvisers leads to a '*social* art' (original emphasis; Engelberts, 2004). Performers in improv need good meta-communication through the aforementioned group mind to co-create with flow and cohesion. On-stage, improvisers are creating live with one and another and nothing is directly expressed about the theatrical construction being formed; as a result, they must play according to the meta-communication. This occurs in everyday adult life (Sawyer, 1993), but is challenged when put onstage. As Al Wunder (2007) suggests, the difference between life and stage is only the condensed space and time.

Nonetheless, communication is implemented in improvisers' lives. Quinn (2007) claims improvisers attempt to live and communicate using principles of improv. As communication is naturally improvisational, improvisers should be more practiced and effective. Improv improves communication, such as active listening and non-verbal communication (Bega et al., 2017; Krueger et al., 2017).

Social skills can develop due to engaging in improv. Engelberts (2004) sees improv as a social formative instrument more than general theatre, educating improvisers in social relations. However, Keith Johnstone believed that humans

are herd animals, and the development of socialisation reduces creativity, so people are more homogenised into their tribe (for this theoretical discussion, see Drinko, 2013). This is similarly to Sawyer's (2014) review of eight sources, finding that when teaching creativity, emphasising socialisation over creative expression must be avoided. In addition, Sawyer (2011) suggests over-socialisation from too much formal training produces conventionalisation and rigidity in thinking. Furthermore, the more impulsive someone is, the less socialised they are and less inclined to need social approval (need to make a good impression) (Sawyer, 2011). Thus, as improv is tribal or community-based, the homogenising nature of the over-socialisation should reduce creativity. Nevertheless, Spolin (1999) theorised that pleasure and excitement drive the social growth of the group that is essential for improvising. Although these may seem contrary, one needs to feel unrestricted and able to be creative and open to a given moment (the creative self), which Spolin proposes through a focus on pleasure and excitement (the creative collective). Therefore, to work together, the group individually must be able to 'work' (be creative). The need for people to come together to improvise is a social requirement; in Morse et al. (2018), the older participants had issues in obtaining social contact, but during improv they had a form of socialisation structured into their schedule. Hence, improv helps older people to widen their social circle (Yamamoto, 2020). Thus, the social component of an improv group ('tribe') exists *because* they co-create through improvisation proffering shared experiences.

Although less certain than other benefits, relaxation can be integral to improv. Implementing improv practices creates a relaxed and humorous atmosphere (Hatcher et al., 2019), so when people are not *trying* to be funny, they

are bonding well and being their funniest (Halpern et al., 1994). This suggests

that when people are connecting to the material and its references, they feel

relaxed (Fortier, 2010). Improv ameliorates circumstances by enabling

playfulness and increases relaxation (Lobman, 2005). In addition, this comes

from knowing there are no mistakes and from having a shared responsibility for

the performance (Seppänen et al., 2019; Sherr & Oshima, 2016). These may assist

in the decompression effect whereby the performers focus on the creation and feel

less pressure themselves (Weixian & Shuyu, 2019). Hence, the best state for the

brain to achieve creativity is relaxed (Hatcher et al., 2019), which is maintained

through reaching a flow state (Drinko, 2013). The skills developed, such as

effective communication, relieves and relaxes people (e.g., scientists; Bernstein,

2014). Consequently, experienced improvisers are relaxed because they can

accomplish scenework without leadership (Drinko, 2013). Moreover, laughter

relaxes muscles (Berk, 2001; Sheesley et al., 2016). Through shared enjoyment of

the skill development or activities and the presence of laughter, the cyclical effect

of laughter through improv should be relaxing.

Nevertheless, it is unclear if improv can provide a sense of mindfulness

within the global population. It could be those more inclined to engage in a

mindfulness practice discover similarities rather than those practicing improv

feeling more mindful themselves.

Practice of the arts

The terms used and the residing continent may well have influence over

the content of the improv. This may be due to the differences in technique and

pedagogical strategies in its teaching and performance. The findings reported lead

to uncertainties, because respondents' perceptions about improv (author's term choice) being comedy, theatre, or comedic theatre (or both comedic and dramatic theatre) cannot be identified from their neutral terms. Nonetheless, North America having over 25% of their terms used relating to comedy, and only Europe using comedy terms too, indicate possible differences in practices.

For comedy, stand-up comedy is the main live form in this industry worldwide (albeit, historically more embedded in Western cultures), and stand-up comedy generally dominates as what comedy is defined as according to societal opinions (as from its instigation as a form of its own for Britain in 1970s; Friedman, 2014; this was similar to developments in the United States of America; Mintz, 1985; Stebbins, 1990); therefore, comedy as the 'circuit' and an industry of its own, over being a touring comedic theatre production, is a crucial difference. In the United Kingdom, The Noise Next Door are the only major professional improv group that tours the comedy 'circuit', but there are an ever-growing number of theatre companies beginning to tour their reputable improvised production. The dominant route to success is through the production's reputation building over years with the company performing the same improvised production (e.g., Showstopper: the improvised musical). Hybrids between theatre and comedy circuit are likely to be older where the divide may have begun (in the 80s, e.g., The Comedy Store Players and Paul Merton's Impro Chums). Thus, North America could have a culture of comedy that is different to the global south, with Europe becoming increasingly influenced by their practice.

Limitations

This study has limitations that must be noted in the interpretation of the findings. Adaptation and further renditions of the survey could improve its design. There were small samples of certain populations of respondents (non-binary; people of colour; and those from the global south; and only eleven self-identifying disabled improvisers). The complexity of the language used could have reduced the viability to complete the survey for those with English as an additional language. The restrictions of social media in some countries would have impacted on visibility of the survey for some populations too.

Conclusion

This chapter set out to answer the perceptions and experiential variations between the demographic factors of respondents, the accuracy of past research for improvisers from around the world, and the reliability and validity of the presented measure. It was found that most respondents agree to the presented domains (Research Question 3) and often trust their scene partner. Performing improv increases trust, trust increases the benefits of most of the domains, and feeling relaxed increases trust in the respondents with their scene partner. Additionally, the survey seems to function both reliably and validly (Research Question 1). This study has identified that North America and Europe use comedy-based terms and South America use more theatre-based terms. However, there were no differences in represented groups of respondents on their experience of the benefits of improv (Research Question 2).

The next chapter explores the qualitative findings of this survey based on short-response questions. This will provide insights into the positive and negative aspects of what agents experience in improv.

Going "full autistic" in improv: reduction in anxiety and other benefits

4. Chapter Four – A qualitative exploration of international perspectives on experiencing improv comedy

Introduction

Chapter three showed most respondents experienced the benefits denoted within the literature (about the wider theatrical improvisation). The last chapter reported the quantitative data from the survey. As discussed, there were no difference between experiences of different groups of respondents based on demographic characteristics, including gender, disability and geographic location. As a result of gaining initial insight into the complexities between trust and relaxation, qualitative understanding could assist in further comprehending improv and interpersonal relations.

This chapter reports the qualitative findings from the survey conducted in the last chapter. To understand the experiences of improvisers, it is important to gain insight into what improv contains (both positive and negative). By developing comprehension regarding this phenomenon, a greater understanding can be applied to future studies and disseminated to the industry (i.e., policy and practice).

In the United Kingdom, improv is rarely a sole profession; in the United States of America (USA), improv is a platform, much like a portfolio of work that performers create for free (Jeffries, 2017). This issue goes further than art professionals, who often require multiple sources of income. In comparison, actors engaging in non-improvisational productions can acquire full-time, consistent work. In fact, in the USA, talented improvisers frequently obtain no

wage for their stage performance or rehearsals (as available resources and news articles suggest, e.g., Metz, 2013; Pasulka, 2017; Zinoman, 2013). Therefore, improv seems to be treated more as a hobby. Then again, this could be changing. For example, in the United Kingdom, some theatre companies focus on improv production with a management team's promotion, and then subsequently tour, for example *Showstopper! The Improvised Musical*, who are managed by Something for the Weekend and Meadow Rosenthal Ltd., however, it can take five to ten years to develop enough of a following when performing the same improv production to gain representation from management. Performers of improv could seek other arts-based occupations, such as their actor counterparts that do not engage in improv, and there are theatre companies that use improv in their productions; however, these are beyond the scope of this survey.

This study aims to explore what might determine trusting relationships with improv scene partners, what people identify as positive and prevalent, and what performers report as lacking in their improv experiences. Thus, it explores the perceptions and experiences of those using improv in practice. In addition, the chapter will explore the relationships between these three factors and the reported benefits and characteristics of the respondents.

Methods

Participants

Recruitment was through social media platforms using a snowball sample. Respondents met the inclusion criteria: participants should have actively engaged in improv (i.e., classes or performances), and be able to write in English; thus,

respondents could reside anywhere in the world, have stopped doing improv currently, and engage through any improv activity.

Measures

Keates Improv Comedy Survey (KICS; Keates & Beadle-Brown, 2022).

Respondents completed the Keates Improv Comedy Survey (Keates & Beadle-Brown, 2022), which measured the benefits of participating in improv, and elicited their perspectives of the art form in open text field answers. This survey comprised of 26-items, with an additional five items gaining qualitative data (their improv term used, on quitting, what is there an abundance of, a lack of, and what makes a scene partner trustworthy). These questions gained qualitative responses of which is the current focus under discussion.

Procedure

This study was conducted as an online survey using Qualtrics. It was fielded over a 5-month period in the summer of 2019 after gaining ethical approval from the Tizard Research Ethics Committee. Recruitment occurred through online social media platforms and consent was gained from the participants continuing the survey after having reviewed the information page. Participants answered a series of questions related to their views on their improv experiences ('What is there an abundance of? What is there a lack of? What makes for a trustworthy scene partner?'), including in-depth demographic information (e.g., gender, ethnicity, and place of residence).

Data Analysis

Short answer questions were input into coding software (NVivo, version 12 pro), and coding was applied to the data. The analysis employed Braun and Clarke's (2006) framework for conducting inductive thematic analysis, following their six phases as outlined below. Initial codes were generated after a technique of thorough, detailed reading. To effectively prevent the instant assumptions about the data at the early stages of coding, the use of memos was employed (Nowell et al., 2017). Grouping similar or overlapping codes was the second phase of analysis, which upon completion of collating all relevant data formed themes (Phase 3). These were reviewed and refined into themes and sub-themes (Phases 4–5).

Trustworthiness (credibility, transferability, dependability, and confirmability) was established in analysis (as an equivalent for reliability and validity in the quantitative research; Lincoln & Guba, 1985). Referential adequacy helps to assert credibility (Lincoln & Guba, 1985), which was used by not analysing 10% of the data until later in the analysis. All data fit the constructed themes well. In addition, the use of peer debriefing and the inter-coder agreement enabled dependability of the themes produced. Themes were generated independently by two coders using a portion (20%) of the randomly selected respondents' data (through random number generation). Any differences in constructed themes were discussed until an agreement formed. The results were challenged using negative case analysis by academic peers. The possibility to alter the names of themes can be endless (King, 2004), so an adequate time for revisions was set.

Results

Participant Characteristics

A total of 195 participants began the survey, with 128 surveys completed. The characteristics of the 128 participants who fully completed the survey are summarised in Table 8 below.

Table 8.

The characteristics of the 128 participants who fully completed the survey are summarised

Demographic Characteristic	Mean or Percent	SD	Range (where applicable)	Quartiles (in years)
Age	41.52	12.11	18 – 74	1-33, 34-38.5, 38.6-49, 50 and over
Gender (males, females,	52, 45, 2			

non-binary)				
Disability (non-disabled, disabled)	87, 9			
Length of participation	9.36	9.07	1 – 47	1-3, 4-5, 6-14, 14 and over

As can be seen the respondents' age ranged widely with the second and third quartiles around mid-thirties to fifty. There was close to equal binary gender with a small percent of non-binary respondents, and most respondents were non-disabled. The average length of participation was just over nine years with a broad range but mostly under fourteen years. Five people did not meet the inclusion criteria, and sixty-two people did not complete the survey (potentially due to a language barrier). They resided in numerous continents around the world (45% in North America; 35% in Europe; 7% in Oceania (or the continent of Australia); 6% in Asia; and 6% in South America).

What People Perceive as Being in Abundance

When asked about what exists in abundance in their experience of improv, participants identified a number of key ideas arranged into three organising themes: the content of improv, the people in improv and the benefits of improv.

Fig. 3.

Diagram of the themes from the question, "What is in abundance in improv?"
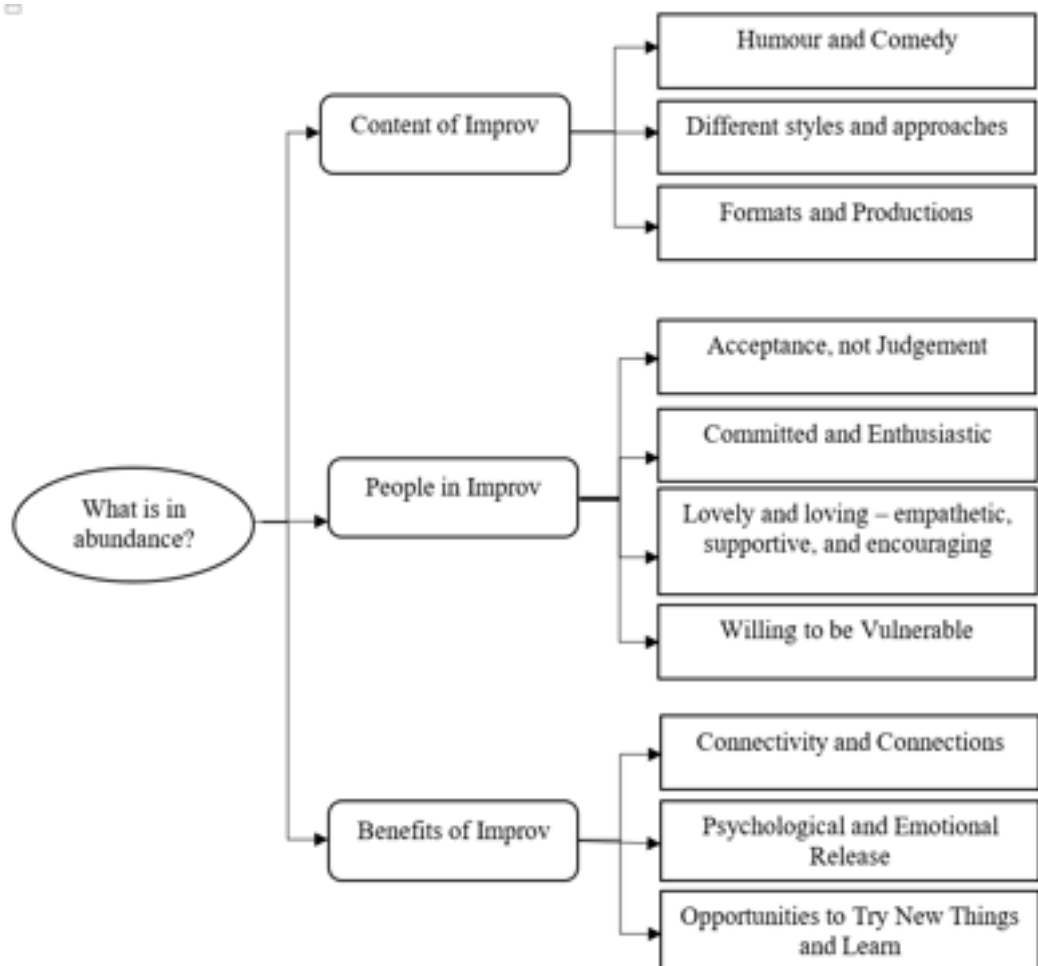
Content of improv.

Respondents deemed aspects of the content of improv in abundance. Improv is complex in its content, in that there are various styles and 'forms' that improvisers can engage in. Therefore, the multi-faceted nature emerged as important to respondents. Not only did this entail the content that goes on-stage, but the content improv holistically has (e.g., the forms, bits and staged comedy, and its people).

One of these components was the humour and comedy that improv elicits. This means the "bits" (as reported by Respondent 1), which are short comedic sequences that are completed in a serious manner (onstage and off-stage). In any case, for on-stage comedy, the type of comedy performed was noteworthy. For example, "satire. Crazy physical fun," (Respondent 25).

In addition, respondents commented on the network of people and communities, and the festivals that happen across the globe. The ways that people engaged in the improv community and its presence locally and globally has meaning for improvisers.

> We have a large improv community in our city and state. Lots of shows, styles, formats, improv festivals and networking. (Respondent 103)

In improv, the formats and productions that can be performed are numerous. So, what improv may explicitly contain has copious variants and possibilities (be it within a format or the vast amount of games people play).

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An abundance of interesting funny games and formats making every improv session and show uniquely different and special. (Respondent 112)

People in improv.

Improv required its agents to accept themselves and others. This can be broken into factors that enabled it to occur. Listening and acceptance was a part of being accepted and not judged. The idea of hearing others attentively, and being receptive to what is said and done, increased the potential for the creation.

The joy and openness of 'Yessing' everything. (Respondent 43)

In the moment acceptance…. (Respondent 86)

…listen and react intently…. (Respondent 125)

To be open to the needs of improvising, respondents stated feeling free to engage and play, and having no judgement. For example, "…the ability to play and be daft without judgement," (Respondent 33). These put together seem to be elements of being supported and supportive. This has made for a better fundamental basis to improvise with others. For instance, "through improv, I feel supported and encouraged by the community," (Respondent 44).

Improv required the performers to revel in the moment and fully engage with their scene partners. For instance, "enthusiasm, community and a willingness to fail or look stupid," (Respondent 26). Although improv may not need to be comedic, those that were open and playful, were likely to draw bonds through their fun, good-natured and maybe mischievous personality. Therefore, to

accomplish comedy, people were playful and fun (and thus funny): "Playful spirit," (Respondent 75).

Another personality trait that was found was having empathy and love. This aspect of improv may lead to the kinship and trust that agents build, in addition to amiable inter-relations. For example, "love and care, kindness," (Respondent 116). People are described as being, "lovely people" (Respondent 57).

In addition, being willing to be vulnerable was noted as occurring. To step onstage with nothing (or next to nothing) with the knowledge that the improviser has only the others to construct the scene or show, requires vulnerability. Furthermore, they must be emotionally vulnerable onstage to create a theatrically and comedically pleasing scene. The vulnerability was reported as both within themselves (to get on stage) and with each other (being available for others wholly, e.g., emotionally, intellectually, etc.).

Supported vulnerability, a sense of play, pushing your own boundaries in a safe space. (Respondent 10).

By extension, some styles of improv required the upmost vulnerability within the scenes' content. Those willing to explore topics, content and endeavour to be spontaneous in many manners may achieve greater outcomes. For example, "willing and earnest improvisers when I produce shows," (Respondent 16).

Benefits of improv.

The respondents signalled that connectivity (between people) is in abundance. Thus, in improv it seems that connecting with people is a foremost component that can be expected when engaging in the art form.

Community forms through improv, as people co-create in their 'teams' or companies and form bonds of friendships that may not have otherwise existed. A sense of being joint in union came from the collaboration of improvising together and being within the same community.

Dear friends. (Respondent 29)

…comradery… (Respondent 23 and 94)

Community, family. (Respondent 78)

As a result, these connections with others have been important to the respondents. The connectivity formed an inter-relation between them (on- or off-stage), such as, "feeling a connection with my fellow players and the audience when I perform," (Respondent 15).

Improv has formed opportunities for psychological and emotional release. People had various universal feelings or a sense of release. Thus, with improv being linked to comedy, laughter was noted. Laughter has been akin to psychological release for centuries (e.g., Bergson, 1911; Giles & Oxford, 1970; Provine, 2004), so it is of no surprise that improvisers find this has been true in their practice. For instance, "laughter, real talk, friendship," (Respondent 19).

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In the same way, the sense of joy and fun was had by engaging in improv. These could derive from the sense of play and playing that was found as a trait of improvisers. This corroborates the finding that improvisers are playful people, which is clear if they engage in the activity of playing.

Joy, fun and playfulness. (Respondent 76)

Sheer play. (Respondent 52)

All of these would have provided provide a sense of freedom, which was reported as useful in improv. So, the release improvisers gained seems to come from this sense of freedom, as per respondent 54: "The sense of freedom/flow/enjoyment of doing improv."

Respondents reported that improvisation is spontaneous, and people are in discovery of each moment. Therefore, the exploration through creativity and spontaneity has been beneficial. For example, "music, creativity and spontaneity," (Respondent 9).

Furthermore, learning was a key part of their growth and development with "learning opportunities," as stated by respondent 47. Importantly, this goes further than these elements to people remarking the need to go beyond their usual and push boundaries. When in an environment conducive to being vulnerable, the improvisers were able to explore. For example, "…pushing your own boundaries in a safe space," (Respondent 10).

What People Perceive as Lacking

When asked about what is lacking in their experience of improv, participants identified numerous key ideas arranged into three organising themes (fig. 4): lack of diversity and inclusion, contrary components of abundance, and improv as an industry (professionalism).

Fig. 4.

Diagram of the themes from the question, "What is there a lack of in improv?
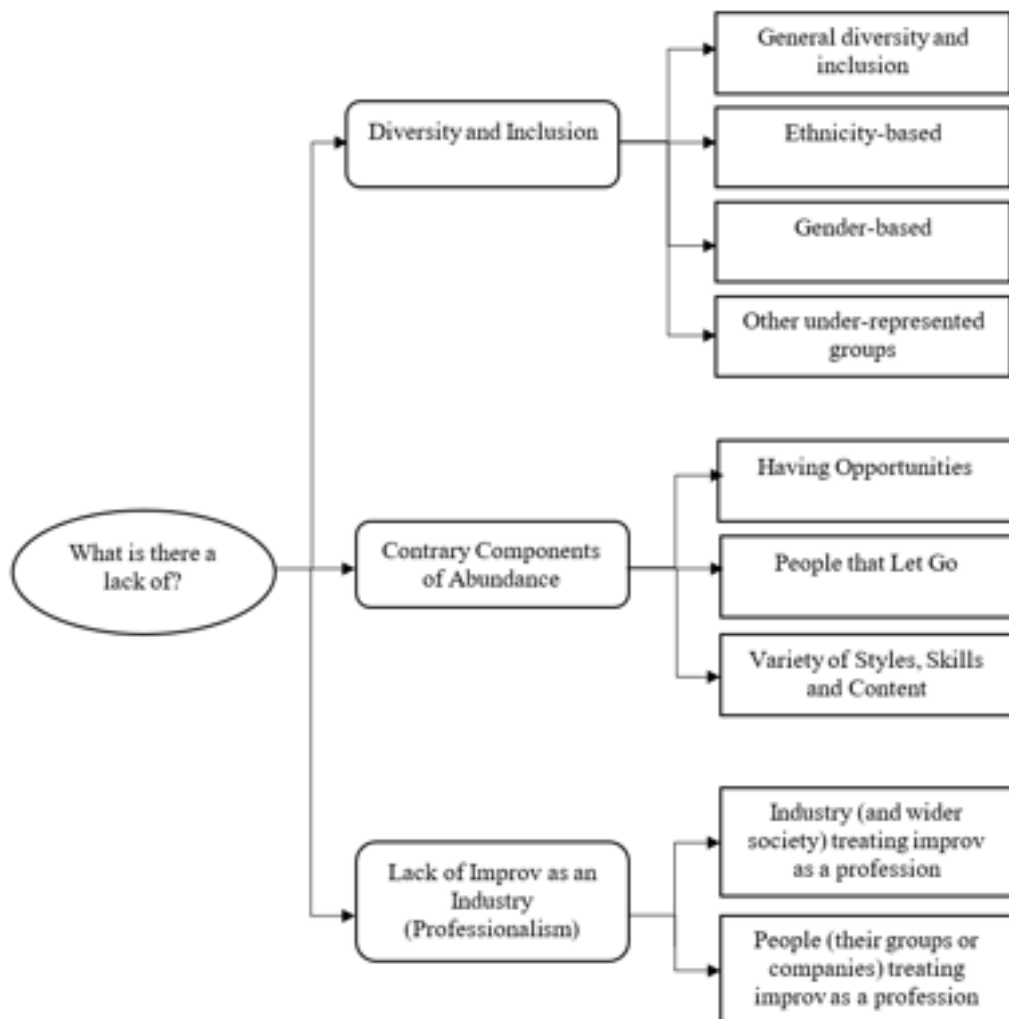
Lack of diversity and inclusion.

Diversity and inclusion are clear issues in improv. There is a lack of viewpoints on stage with the presented perspectives not accommodating diverse voices.

> Diversity of voices and experiences represented on stage. More often than not, if most of the players come from similar backgrounds and communities, the references, jokes, and elements used in scenes tend to be very homogeneous (Respondent 20).

Specifically, the issue has been noted to be for various ethnicities. For example, "more diversity of improvisers given performance opportunities (more women, non-binary, POC groups given mainstage performance opportunities)," (Respondent 7). In addition, genders are said to be under-represented too: "Gender representation—not enough women," (Respondent 37). However, the under-representation of groups included age, social class and political beliefs. Certain voices are excluded by the social practice that improvisers may have, such as non-improv social events.

> I am 72 so it is difficult to become accepted with each new group of improvisers. I think it would be great if there were more depth, or real 'getting to know' one another. I look like a 'privileged old white guy' which I am but it takes weeks to be recognised as a socialist liberal, which I am. There is often subtle exclusion. I.e., 'Let's grab a beer' (Respondent 86).

Contrary components of abundance.

It was noted that improvisers have opportunities, but this is not always the case. Some people wished to have more time to improvise, which could be more time in their life or more chance to play.

More improv comedy closer to me (Isle of Wight) (Respondent 4).

More days in the week and weeks in the year (Respondent 17).

Similarly, the need for more time on stage was stated. The limited opportunities may be given to the few rather than the many. Additionally, to develop in improv, some people wanted more affordable opportunities where larger communities do not exist, or may be withheld by gatekeepers (e.g., improv theatres).

Opportunities to perform in front of audiences (Respondent 69).

Cheap places to perform so I can organise my own events (Respondent 55).

In addition, some people wished to have more networking events. The desire was to be able to collaborate and work with more people. This was noted by respondent 71: "opportunities to meet and network with other improvisers."

There is a contradiction on having freedom and no judgment with people wanting the same, and there was a lack of people that let go of control. It was noted that some people did not have a genuine connection and flow (or letting go).

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Moments of genuine connection and flow. Those moments, where neither one is leading, but building a story and world together. Moments where people let go of control and allow improv to happen in ways that surprise even themselves (Respondent 39).

Respondents stated that people need to not judge themselves and others with the issue of people not being encouraging and constructive. For example, "positivity from all troupe members," (Respondent 121). Correspondingly, respondents mentioned a lack of people who were similar-minded, eager, and productively challenging. Thus, people might want to be surrounded by others with either desired skillsets, perceived to be 'better' at some aspect of improv, or merely those that all wish to achieve more within their practice. For instance, "more improvisers who can push me and themselves onstage," (Respondent 109).

In addition, there were comments regarding the content too. Respondents wished for more variety of styles and used skillsets. Fundamentally, there is a dualistic complexity between improv being serious, dramatic theatre, and comedy, which is remarked upon via the desire for more dramatic, real or grounded scene work. For instance, "revealing true feelings in scenes and playing scenes truthfully," (Respondent 68). Further to this, some people wanted to practice and develop more skills, be it themselves or with whom they improvised. This included collaborative storytelling, having a gestalt view of the production, character-work, physicality, and musical abilities.

Practice of improv song and music (Respondent 42).

I'd like to see more character and story and less people doing gags in the hopes of landing a joke (Respondent 110).

Some of this was contradicted by those who wanted styles to not be dramatic – yet people wished for experimentation, thematic scenes and the purely positive, *hypo*-real scenes. For example, "more experimentation with different forms," (Respondent 21).

Lack of improv as an industry (professionalism).

There is a lack of professionalism and treating improv as an industry. Both the Arts industry and wider society need to treat improv as a profession.

Professionalism from the improv community and professional respect from people in the Arts as well as from the general public (Respondent 43).

Similarly, for some respondents, people in improv and their groups or companies must treat improv as a profession. The separation of those engaging in improv as a hobby or their profession can cause fraction in groups and companies. Some improvisers may not view improv seriously (comedic or dramatic).

I wish I could free improv from the mainly comedy and amateur based roots. Most of the improv shows I play and watch are solely rather amateurish. Even the best groups here in Germany stick to the rather childish improv-sports. It still lacks some sense of professionalism, like the established modern theatre forms (Respondent 13).

Trustworthiness of the Scene Partner

When asked about what makes a scene partner trustworthy, participants identified numerous ideas which have been arranged into four organising themes (see fig. 5): other-focused: accepted, being heard and respected (for who I am); integrity: honesty, openness and being vulnerable, yet playful; reliable, skilful and committed fellows; and supported and co-creation through mutual following.

Fig. 5.

Diagram of the themes from the question, "What makes a scene partner trustworthy?"
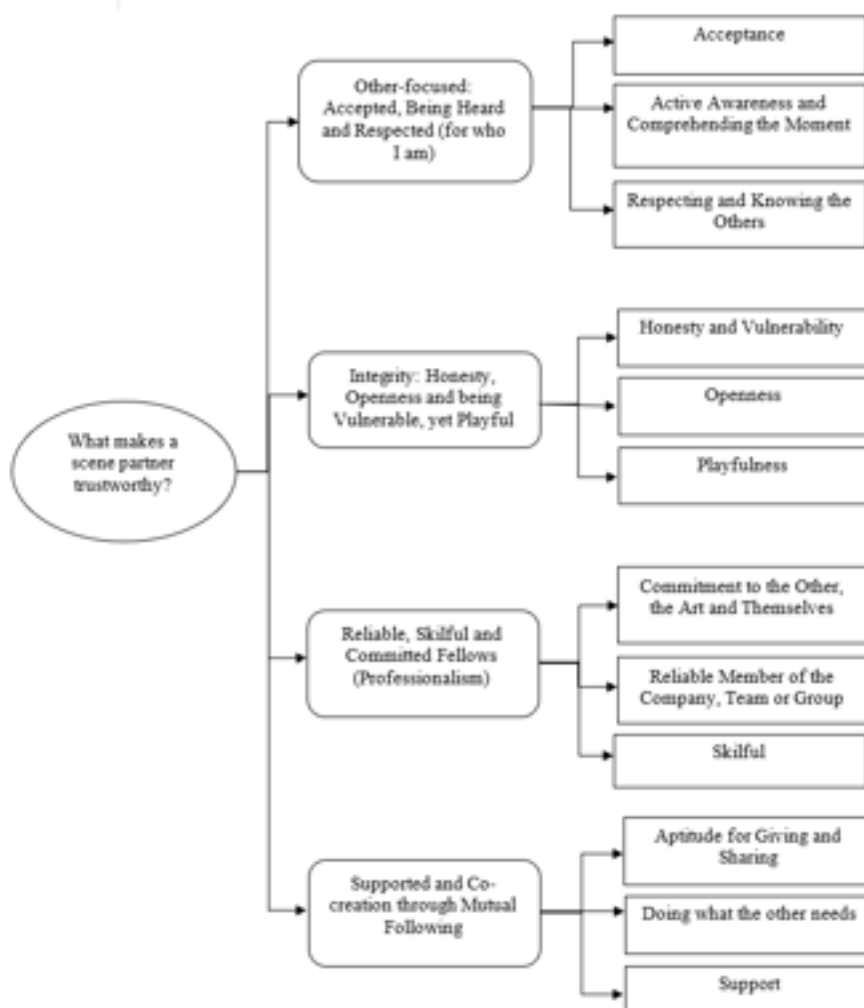
Other-focused: accepted, being heard and respected (for who I am).

People needed to be accepting of others, through listening and showing that they hear others, and be respectful of their scene partners. A quality that made people more trustworthy was acceptance and focusing on the partner over oneself.

> That they play making each other look good on scene, less ego, listening skills, accepting offers (Respondent 41).

Respondents remarked that the person must have effective communication with their scene partner to be in agreement. This entailed being actively aware and comprehending the moment through listening (of which some people may suggest eye contact, or a wider eye gaze not directly at the eyes for a more inclusive practice).

> Knowing that they will actually hear/understand what you've just said. I don't care how they use it as long as I can tell that they've actually heard and processed it (Respondent 6).

People's boundaries needed to be respected. Thus, a scene partner must have respected and demonstrated knowledge or awareness of the others in their productions or teams. It was commented upon that non-improv social events support teams getting to know each other by having collective time and experiences together. In addition, respect included the capability to share the stage, and not to 'steamroller' or 'bulldoze' the scene and takeover, or control the content or the direction of its progress.

> Consideration for others—not looking to bulldoze. (Respondent 24)

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They listen to you, respect you, appreciate you and your offers and honour

you as a person. They are quick to 'get' what you are doing or saying

(Respondent 87).

Integrity: honesty, openness and being vulnerable, yet playful.

It was reported that the type of person that succeeds at forming a

trustworthy relationship in improv must have integrity yet be playful. The two

identified linked qualities that may form this are openness and being vulnerable.

Furthermore, the formation of trust was through honesty. In improv, truth and

honesty were important (as per the title of the book, *Truth in Comedy*, Halpern et

al., 1994). Respondents stated that improv is about using oneself and their

personal honesty (how agents feel in the moment, and details from their lives

when appropriate, etc.), using the honesty of the moment (i.e., the character's

honesty but using the active choice, so as to always progress the scene), and being

honest with their scene partners and company. This was stated both in the positive

existence of it, or the breakdown of trust through it not existing.

Being honest, having integrity, not bad mouthing you behind your back

(Respondent 73).

Deception, lack of honesty (Respondent 107).

In addition, it was stated that agents must be an open person or have the

characteristic of openness about them. Similarly, respondents commented that

agents must feel able to connect with the other improviser.

Being able to differentiate between ROLE and PERSON. Also: Being

open. Being able to connect. Being honest (Respondent 46).

However, respondents suggested other agents must be playful and share their fun with the performers onstage (and audiences off-stage). Improvisers engaged with one and another through the playfulness, which supports their interaction and kinship.

They want everyone to have a good time (Respondent 72).

Wanting him/her to have fun (Respondent 115).

Reliable, skilful and committed fellows

Respondents stated how their scene partner must be reliable, skilful, and committed. In particular, their commitment is to others, the art and themselves. For example, "feel safe in their company, they've got your back, commitment," (Respondent 82). They further remarked on the need to be a reliable member of the company, team, or group. The companies (or groups) must have a fellowship with one another, which means being independently reliable for the group, administratively and punctually.

Showing up for practices and performances. Not denying your base reality. Supporting you on stage (Respondent 88).

Additionally, respondents said their scene partner must present skill. In any case, the ability to improvise came with additional components dependent on the improv school. For instance, "the ability to pick up the 'game'/joke," (Respondent 8).

Going "full autistic" in improv: reduction in anxiety and other benefits

Supported and co-creation through mutual following.

To gain trust with others in improv, it was suggested people need to be supportive, co-creative through mutually following each other. This meant that they must have an aptitude for giving and sharing. It was not enough to listen, but to provide stimulus in return (reactions, 'offers' or 'gifts'). For example, "listens, gives gifts," (Respondent 14). Generally, respondents clearly identified their scene partner should display the basis of improv of being supportive. It seemed to be that this provides the necessary mutuality for a co-creative process, as respondent 119 stated: "supportive, 'giving' improv." Therefore, respondents suggested agents should be outwardly focused (doing what the others need).

Someone who is able to put aside their ego, support their partner, and take the risk of sharing ideas (Respondent 40).

When (s)he is accepting, giving, and not self-centred (Respondent 90).

Discussion

There were a number of key findings from the inductive thematic analysis of participants responses to the open text questions on the survey. Due to there being a contradiction with what is in abundance and lacking, it is necessary to begin with what is needed for a partner to be deemed trustworthy. For an improviser to be deemed trustworthy, agents must be focused on the others in their company or cast through accepting the moment, themselves and others, feeling like they are heard and respected (for who they are), having integrity with honesty, openness and being vulnerable, yet playful, being reliable, skilful and committed, and supportive through mutual following. There was a lack of improv

being a profession and being treated as an industry (albeit that these would be constructed and function differently across the world), diversity and inclusion (with all voices to be heard), the opportunities to grow (improv being affordable and available), variety of styles, skills and content, and people that let go of control. As for what there was an abundance of in improv, respondents identified humour and comedy, styles and formats, specific qualities of its agents, and psychological and emotional release, connectivity, and opportunities (as benefits of improv).

However, opposing experiences exist between the collective respondents regarding what there is an abundance of and of what there is a lack. Some respondents found a lack of opportunities to perform due to time restraints and their area, which suggests less opportunities to develop (as found in abundance). There was a lack of variety in styles and skills, which is opposed to the abundance of content in improv. Additionally, some respondents noted a lack of freedom, flow and non-judgemental attitudes in improv, which is diametrically opposed to the abundance of the acceptance and no judgement and going beyond their boundaries from 'People in Improv'. In one way, this could be noted as highlighting what was important to the respondents.

Types of people that improv attracts or requires

Agents need to be accepting of others and themselves (e.g., Bega et al., 2017; Krueger et al., 2017; Schwenke et al., 2020; Yamamoto, 2020). Feeling accepted and accepting others enables a non-judgemental social engagement (DeMichele, 2015). This collaborative, dialogic approach engenders convergent consensus (Fuller & Magerko, 2010; McLaughlin, 2013), which could produce

new ideas (DeMichele, 2015) and enable exploration. Improv needs

unconditional acceptance (Bega et al., 2017). The agents let go for a sense of

freedom (FitzPatrick, 2002; Lobman, 2005; McLaughlin, 2018; Poccia, 2020;

Spolin, 1999; Szuster, 2017; Yamamoto, 2020), which is a consequence of

acceptance and not judgment (Poccia, 2020). Improv cultivates a sense of the

creative freedom (FitzPatrick, 2002; McLaughlin, 2018). Additionally, agents

must gain personal growth in being open and vulnerable (Fortier, 2010), as

individual vulnerability produces collective strength (Bermant, 2013). Being open

and vulnerable is required for the stage work and for social cohesion (Fortier,

2010) because it fosters more depth to the performance (Quinn, 2007). Katz-

Buonincontro (2015) identifies that being vulnerable is about being able to

empathise; agents must hold awareness and acknowledge their feelings when

improvising. Similarly, they are loving and caring about others and willing to

share everything (to some extent) (e.g., Aylesworth, 2008; Madson, 2010; Shaw

& Stacey, 2006). Moreover, they maintain a drive to push their boundaries

(Goodman, 2008; Hogg & Reid, 2019; Majid, 2018). This includes the need to

reach their full potential by their exploration of all possibilities yet maintain the

awareness of others' boundaries.

Agents that do not provide what others need may cause problems.

Improvisers are generally not solely performers (by profession), so this can cause

issues for those either finding their new love for performing and those furthering

their careers. This further provides problems by those pursuing a career outside of

improv, not being committed to their improv company or group. Similarly, there

may be disparity between women gaining the same benefits from improv as men

(Seham, 2001; Hogg & Reid, 2019), which some of this study's respondents

recognise as the need for more diversity and inclusion in improv. In addition, agents are not always fully conducive to improv, or to people being vulnerable with them. Consequently, these issues lead to problems with professionalism and improv as a part of the arts industries, and the diversity and inclusion within improv.

Professionalism and development of the arts

To begin with, identifying the issues in reference to clear evidence is difficult; this is not because it is not identifiable in the world, but due to a dearth of writing within valued publications about improv. Therefore, the evidence provided is from highly regarded newspapers where possible. However, the funding improv productions is a less spoken about topic; thus, available relevant evidence has been reported.

Improv has been ostracised as an art form. Previously, improv in the UK (the people and productions) has been unable to win awards. Noise Next Door successfully protested the Edinburgh Comedy Awards by stating stand-up comedians (who can win awards) skilfully adapt their routine to suit the audience, like improvisers do for their unscripted sets (Why do, 2013). Thus, improv has been stigmatised by Arts professionals.

Improv theatres typically do not function in same manner as other theatres and more traditional productions, so standardised actor's employment contracts would be disruptive to how they function (Simons, 2018); thus, unionization would need to be considerate of this factor. Payment does occur for performing improv around the world, but this would undoubtedly not meet union standards.

Going "full autistic" in improv: reduction in anxiety and other benefits

For improv theatres in the USA, payment would be a bonus (Jeffries, 2017), devaluing the talent onstage. Improvisers perform using their skills and training the same as for any other acting job. In general, the comedy circuit has poor working conditions too (Butler & Stoyanova Russell, 2018; Jeffries, 2017). Much of the payment available would be box-office splits, for 'indie' teams or local community groups (which may be substantial if only one small company performed). The culture around improv organizations implies that maintaining the theatre rather than paying the performers has been dominant (e.g., Allen, 2016; Zinoman, 2013). Conversely, theatres cannot afford to pay teams or companies; to illustrate why, consider the expense for start-up theatres using multiple teams in one evening (Burns, 2018; Daniels, 2013).

One solution is for the arts industry (in terms of its ecology and its empowered professionals) to treat improv as a valued art form, enabling funding for individuals and companies. Historically, the scarcity of funding may be due to comedy not being perceived as art (Davis, 2009). Some agents or companies have acquired funding (Arts Council England, 2017; Improv as Culture, 2019; Urquhart, 2019); even though this has numerously been due to not mentioning the term improv or improvisation (e.g., Creative Europe Desk Slovenia, n.d.).

Agents may not always want to become professionals. This may cause issues within groups that are a mix of those that pursue a career and others that choose to improvise as a pastime. This may detract from what is possible in development and performance.

Diversity and inclusion

Improv has been viewed as oppressive to some people (women, people of colour, and disabled people). Media over recent years have exposed institutional racism (in the USA) and sexual abuse and harassment claims in improv theatres (DiNunzio, 2020; Greene, 2017; Kujawa, 2020; Metz, 2016; Pitchel, 2018; Rodrigues, 2020; Thulin, 2017; Woods, 2017; Wright, 2020a, 2020b). Albeit that no quantitative evidence suggests females or Black improvisers experience less benefits from improv (see Chapter 3), there is a call for action on further inclusive practices. This was acknowledged for agents of uncommon age groups, ethnicities, political belief, social class, non-socially normative gender (i.e., non-binary), and females. This means that it is possible that othering occurs in improv (othering is a form of ostracization of a certain group of people) from perceiving them as aberrant (Jeyaraj, 2004; Said, 1979) (see appendix G for an insider identity case example).

Additional identities that an improviser may have that 'others' them in everyday life may hinder their access to the insider group (improv). It could be that those with a markedly disparate life experience that currently is not globally, socially accepted have more of a difficult experience in improv. Therefore, as an example, those that are non-binary that are othered in their daily lives are excluded within improv too. These life experiences impact the 'comedic voice' (their sensibility of what is funny and relates to their current worldview) one puts forth. Moreover, their culture would alter their point of view on subject matter, which includes the national culture that 'nurtured' their growth, and the experiential impact of their identity (non-binary, Black, lesbian, etc.).

Conclusion

This paper set out to explore improv via the perspective of its agents. The data proposes contrary findings to what is in abundance and a lack of in improv; however, this may suggest that these are important for its agents. Improvisers are or need to be accepting, open, playful, loving, skilful, other-focused and respectful of their boundaries with being a reliable person. There is a lack of diversity and inclusion that can be linked to prospects of othering in improv. Lastly, some agents desire improv to be an industry and profession.

The following chapter focuses on the experience of improvisers who are autistic and more broadly neurodivergent compared to non-autistic individuals through an in-depth qualitative interview study. This study will query if there were any benefits from participating in the improv and what factors of their lives changed because of improv.

5. Chapter Five – Improvisers' experience based on neurotype

Introduction

The last chapter demonstrated that there is a mixture of experiences within improv. The difference between perceived abundance and what is lacking, suggested the importance of: opportunities to do a variety of improv; a network; stage time; having freedom to be; and not feeling judged by others. In view of this, it could be important to further understand the potential mix of experiences. Moreover, the previous chapter discussed participants' desire for diversity and inclusion in improv, which indicated othering may occur for certain groups of improvisers (e.g., perhaps autistic improvisers). As a result of this potential outsider group of improvisers (whom may or may not encounter each other within their own sub-communities), there is need to explore autistic improvisers' experience in comparison to non-autistic but neurodivergent (for ease, henceforth written ND), and predominant neurotype (PNT) improvisers.

The initial step in answering my key research questions 'what benefits can autistic people gain from improv comedy?' and 'does it reduce anxiety?' was to develop an understanding of what improv involves and what are perceived as important elements in order to identify the likely benefits for the autistic population. The previous two chapters explored the views and experiences of improvisers more generally across the world. This chapter narrows the focus to the experience of improvisers who identify as autistic compared to those who either identify as neurodivergent but not autistic, or those who consider themselves PNT, using a qualitative study. As with the nature of qualitative research, this study sought to gain an in-depth understanding of 20 participants'

experiences. This does not lead to an in-depth understanding of the population but offers useful insight into the potential experiences of others. Therefore, the use of qualitative exploration of this phenomenon can provide insight based on an in-depth understanding of a few. This is unlike a large-scale study of a survey that may acquire a large sample of the population. This study particularly focuses on any perceived benefits from participating in improv, and which factors of autistic lived experience (in a world enshrined in PNT norms) change because of improv, if any.

Methods

Participants

This study had a volunteer sample of 20 English-speaking adults (10 autistic, five ND and five PNT). Through snowball sampling, recruitment occurred online (due to COVID-19) via social media; local, national, and international autism organisations; support and social groups; and relevant autism mailing lists. The participants' ages ranged from 24 to 79 years old, with eight participants identifying as female, nine as male, and three as non-binary. 18 participants identified themselves as Caucasian, and two characterised themselves as mixed ethnicity. 40% of participants resided in the UK, 40% in the USA, 10% in Canada, 5% in Australia, and 5% in New Zealand.

Design

This study used a qualitative design, with interviews analysed thematically. Data was collected using semi-structured interviews with the schedule being developed through piloting.

Materials

Sample characterisation. The demographic characteristics of the participants was collected through a questionnaire completed and emailed to the first author, or answered to the interviewer (e.g., gender identity, age, ethnicity, and prior improv experience). Non-autistic participants were asked about their diagnoses/how they self-identify (in cases without a formal diagnosis in order to identify ND participants). Various, separate volunteer requests were made to recruit people who either had an ND diagnoses or self-identified as ND. Most neurodivergent participants responded to advertisements because they mentioned a specific diagnosis, i.e., dyslexia, ADHD. While some autistic participants had other ND diagnoses or identities, they were assigned to the autistic group. Importantly, participants were only required to have engaged in a minimum of one improv course.

Interviews. The interviews were semi-structured to provide scope to for the interview to flow freely. Follow-up questions were tested while piloting the schedule. Initially, the questions in the interview schedule were reviewed by the project's consultation group (of 21 autistic people) via text-based applications (i.e., emails). Piloting of the interview schedule occurred until the questions provided useful data across all neurotypes (with 16 people in total). Only the core questions were provided to all participants before the interview regardless of their neurotype. Interviews lasted between 45 and 120 minutes.

Procedure

The study received approval from the Tizard Centre Ethics Committee in September 2020. The interviews were conducted by the researcher over video conferencing software, Zoom. They were organised to occur at a mutually convenient time, especially as participants resided in multiple countries around the world. Furthermore, a comfortable interview situation was designed, taking into account that the conversation was taking place across video conferencing software and in various locations across the world. This was managed due to facilitating a person-centric context, whereby the participant felt able to lead without the interviewer becoming too 'outcome focused' (McCormack & Joseph, 2018). Building a rapport with participants occurred before each interview, which helped form a relaxed environment (Smith, 1996). Due to being online, participants had the usual control over their own environment as per any other time, so would be in a space suitable for themselves or would move to a better location is external noise was interfering. For example, an autistic participant could be interviewed in a dark room to reduce sensory information.

Data analysis

The unedited video calls were recorded and stored in Microsoft Stream on the University of Kent's secure online server. The data were initially analysed using interpretative phenomenological analysis (IPA) to ascertain the lived experiences of participants. However, qualitative content analysis (QCA) (Bengtsson, 2016) was necessary to understand all the specific benefits gained. Through this pragmatic framework, it was believed that nuanced comprehension of the phenomena could be achieved.

Going "full autistic" in improv: reduction in anxiety and other benefits

The ideographic process of IPA was implemented on the data through a 7-stage process (McCormack & Joseph, 2018). First, each interview transcript was analysed separately, noting initial thoughts in the margin, and then expanding on these thoughts using the other margin (steps 1 – 2); significant content, language, and concepts were then identified (Step 3); next, any emerging themes exemplary quotes were highlighted (creating an extensive audit trail) (Steps 4 and 5). Thereafter, the above steps were repeated for all other transcripts. In step 6, auditors were used (in this case, inter-raters) to ensure a robust discussion of the themes. Themes were continued to be developed during report writing (Step 7). After all the transcripts were coded, convergent and divergent themes were compared to form the appropriate themes.

QCA is a method of analysing that benefits from coding specific details from the participants. This process has four steps: (i) decontextualisation, (ii) recontextualisation, (iii) categorisation, and (iv) compilation. Decontextualisation was applied via initial notes and thoughts about what participants were stating (in addition to the IPA), which was recontextualised by collectively understanding the benefits suggested in the interviews (into codes). Thereafter, the codes were categorised and compiled into themes and sub-themes.

All data were analysed using NVivo (version 12) and Microsoft Excel (Version 2111) to support the coding process. All participants' identifying information (including participants' names) was redacted, anonymised, or pseudonymised, where applicable.

Inter-coder reliability was achieved by two impartial researchers (from different academic fields) coding 20% of the data to reduce the impact of

researcher bias. All researchers came to a complete agreement with the themes, however, consideration of alternative interpretations shaped and developed the final themes. This approach is akin to Lincoln and Guba's (1985) 'peer debriefing'. Further trustworthiness measures were in-place, such as (but not limited to): prolonged engagement to understand individuals culturally and contextually (including through the lens of autistic culture, e.g., Dekker, 2010, and sociality, see Crompton et al., 2020a, 2020b, 2020c; Davis & Crompton, 2020); persistent observation to be contextually relevant; and deviant case analysis that helped to identify the majority case and reconsider disconfirming data. These techniques supported identifying the credibility of the themes. Furthermore, the use of referential adequacy was employed to support the accuracy of emerged themes, based on keeping data to be analysed until after themes are generated. However, it is acknowledged that this approach is flawed and as such limited in its value, as confirmation bias by researchers engaging in this approach may be a possibility. Nonetheless, it is not concerning due to being executed along with all the other techniques implemented. Thick descriptions support gaining 'transferability'. As such, sufficient detail was achieved to gain some support for the themes' relevance across places, times, and people. For confirmability, an audit trail was implemented as a process of reflexivity.

Results

Lived experience (IPA)

The initial analysis sought the participants' lived experiences. In seeking the depth of their experiences, two key themes emerged: for all neurotypes, (i) 'life beyond improv', and for autistics (ii) the 'negative impact of the social

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world'. These themes identified key aspects of their lived experiences as improvisers embedded in the social world.

Life beyond improv (IPA)

'Life beyond improv' expounds on parts of life that create gains and how these can affect improv. Participants mentioned numerous aspects of life are impactful, including being around likeminded or the 'right' people, participants' maturation, development of self-knowledge, and Buddhism.

Being around likeminded or the 'right' people was a key aspect of life beyond improv. This includes common bonds and language. Whether an interlocutor or social contact was of the same neurology (not just autistic or not) was stated, as were cultural, social, and political similarities and priorities. Nevertheless, whether the 'right' people were from being an improviser or other forms of connection was left to question.

> I'm [as an ADHD-er] possibly quite hard work for them [other autistic people] … for some of them, sometimes. And in return, it's exhausting the amount I have to slow myself down. (Rachel, *autistic*)

> I-I feel like a stronger connection to some of those cultures [Europe and Asia] more than I feel… to my culture. (Donald, *PNT*)

> Yes, that's why I have the friends that I do (laughs… Not all of them were improv performers themselves… [they are] able to like express their ideas without judgement is a big part of our friendship circles, and why I keep the friends that I do. (Charlie, *autistic*)

Correspondingly, the participants commented on knowing that they were ready at this point and not beforehand. Another factor was participants' maturation. For example, they developed knowledge about self-care via self-protection and employing better pacing in life. This can be further identified by obtaining a diagnosis to better understand oneself.

Also, I mentioned sleep apnoea, I was only diagnosed with that… And they give you a machine…which just made me …probably more… brainpower for creativity and… agreeing to things…. Before, if there was a choice to make I'd more- I'd almost always choose the sort of, lazier easier choice… I think on top- with improv on top of that, I think it's kind of, got an exponential return, really sort of doubled itself. (Michael, *ND*).

Notably, technology was utilised due to understanding their diagnosis. Another participant used a light-therapy tool.

One participant specifically questioned whether their development was natural to maturation or improv. Jack (*autistic*) stated "I don't know whether it's just comes with natural growth, or wherever improv… has helped."

Finally, Buddhism is an additional factor that may impact participants' lived experiences, rather than solely improv. It was spoken about as an additional community of practice or a way of being. This was observed in the autistic and PNT groups.

Negative Impact of the Social World (IPA).

For autistic people, the neuro-normative social world has been negatively impactful, including leading to masking. For one participant, internalised ableism or self-stigma seemed to exist.

> I think me doing drama has been difficult on other people because… drama is helping me, become more socially well adapted but, sometimes it's at the cost of other people's patience… there was some theatre going on… and people never really told me that, they, weren't, you know, down with, me pursuing [it]. (Bill, *autistic)*

Another participant hated the arts sector but felt more able within theatre (rather than science or mathematics). This extends beyond this sector to the broader social world.

> It's the Arts, it's feral. …And the Arts is actually quite a dodgy thing, and there's a side to me absolutely hates it. Actors, absolutely hates that whole world that don't want to be… performer-actor. (Pat, *autistic*)

Some of the autistic participants experienced the need to mask and even accidentally do so after realising they should not have this obligation. Being autistic can be perceived as a fight within oneself related to fitting into the world.

> It's still a process of, working out, when to how to. I mean I'm quite adamant that I shouldn't have to [mask]. …I don't think I don't see how we can get our lives lived, in any kind of positive way for ourselves if we're spending all of our times masking, for other people to feel comfortable… accommodated, whatever, you know. (Rachel, *autistic*)

…trying to… live socially well adapted or whatever is-. It's, it's exhausting. Uh, like it doesn't come easy. You know, a lot of the time I wish I could just curl up in a… ball and… you know, like live the rest of my life with a fucking social worker… up my butt. (Bill, *autistic*)

The negative impact of the social world was not uniformly experienced. Some autistic participants understood their personal advantages in comparison to others. This created scope for them to view themselves within the information regarding other's struggles. Being further informed seemed to be comparably different to those without autistic associates and those within the autistic community but with experiences of turmoil.

And so I was around a lot of people with neurological variations like Down syndrome, foetal alcohol syndrome, … that-that were, treated like outsiders. So no, it was never, anything, I was ever ashamed of. My little brother, [name], he was profoundly challenged, nonverbal, needed my folks help 24/7. So, I was always aware, OK, there are people that there are- people having a tougher time than you. (Keith, *autistic*)

Consequently, the improv had little impact on these factors. Therefore, it seems that improv can only be part of their system of being or an activity with which they engage. This was implied and stated in various ways, including, "Improv is not a panacea," (Del, *autistic*). What is more, it can only be of value to some people at the right time.

Benefits of improv (QCA)

Five themes were identified regarding the benefits of improv from the data through QCA (see table 9). These were: i) 'creativity and opportunities: the arts and workplace'; ii) 'acceptance, cognitive flexibility and rolling with it'; iii) 'interpersonal, social and communication skills and human connection'; iv) 'gains in mental health, quality of life and well-being'; and for just autistic participants, v) '"I've gone full autistic" (and can learn why PNTs are like they are)'. It is important to note that mental health benefits were not found for PNT participants (only other QoL and well-being gains existed).

Table 9.

The themes through QCA

Theme titles	Sub-theme titles		
1. Creativity and Opportunities: the arts and the workplace	Skills and comfort at improvising, performance, and comedy	Creative development	Other platforms for using improv
2. Acceptance, cognitive flexibility, and rolling with it	Enabling creation, equanimity, onstage and in life	Accepting, risk, and being present in life	Enables you to go with the flow and take risks

	(including people and their ideas)			
3. Interpersonal, social and communication skills and human connection	Social communication skills, including empathy and interpersonal connections	Human connection and being human		
4. Gains in Mental Health, Quality of Life, and Well-being	Helps personal development, self-determination, and increase in emotional well-being	Hedonistic well-being	Life affirming	
5. "I've gone full autistic" (and can learn why PNTs are like they are)	Helps be autistic self, due being accepted	Identifies autistic strengths in improv	Opportunity for more of a complete understanding of self, PNTs	Has a structure and rules that are useful

(Autistics only)	and the world)

Theme 1: Creativity and Opportunities: The arts and the workplace

This theme exemplifies the wide arena for improvisation to be transferable to performance, the arts, and other workplaces. It explores the range of applications improv has with participants. The theme covers large-scale skill development of creativity and performance to the specific implementation for clients or workplaces. For instance, participants learned to be on stage and how to create a comedic premise for humour creation. Participants commented on how improv helped their creative outlets beyond performing improv, for example, caricaturing or writing. In the same way, improv supported their leadership, client relations, and sales. Therefore, the three subthemes were skills and comfort at improvising, performance, and comedy, creative development, and other platforms for using improv.

First, the participants gained skills and comfort at performing, including general performance and comedy. Performance was not an activity with which every participant thought they would engage. As a result, they found a new skill in performing and developing comedic sensibilities.

It's also gotten me better at articulating premises, I would say (Keith, *autistic*).

…the chance to perform which is out of- out of the ordinary for my life… and then also, I think, developing skills (Alice, *PNT*).

So, I think being able to, pursue what I do as a performer without that thing of having to have fixed things, the whole time (Jill, *autistic*).

In addition, improv helped participants engage in other creative endeavours. Thus, the provision of creative development went beyond improv. Participants spoke on improv offering a toolkit of skills and mindset that can help other creative ventures.

Well as I say, I've always wanted to try my hand at… writing. I mean, I am, infamous, with my wife, as a serial hobbyist, and always trying new things constantly… And as I say the only thing that really stuck with this idea of writing. And then. And then the improv come along. It's kind of focused me a bit I guess on that writing stuff (Michael, *ND*).

Other platforms external to creative-based employment were discussed, whereby the participants would apply their improv practice, such as academia, teaching, leadership, and sales. Some participants even applied the practice of improv with their clients, including clients' self-reflection.

Yeah, I think just in generally being able to engage with… students. I find it quite beneficial to be able to have a sort of back and forth. My work is very collaborative as opposed to lecture-based so... there needs to be a lot of kind of circular discussion. So being able to just keep a discussion going… that's, again, like adding to what they're saying (Becky, *ND*).

…improv has entered my workplace. …I'm able to use improv, techniques, or games, to help them, see some things about themselves [clients], gain more insight and awareness (May, *ND*).

Theme 2: Acceptance, cognitive flexibility, and rolling with it

This theme seems to be a key part of the learning that can occur during improv training. Acceptance and spontaneity were common experiences across all participants, which were linked to being able to roll with the moment and actively partake in whatever happens. This can be through collaborative creation, perceiving a given moment as an opportunity, having a presence with immediacy, and successfully failing. For example, "learned to be able to fail, I will live to another birthday" (Joan, *PNT*). The three subthemes are 'enabling creation, equanimity, onstage and in life', 'accepting, and being present in life (including people and their ideas)', and 'enables you to go with the flow, and take risks'.

Equanimity and creation were prominent aspects of people's experiences, yet this was not only within improv; some people were keen on this way of being more broadly (e.g., mindfulness, Buddhism), which may have occurred before improv. This aligns to applied improv for people's lives (i.e., the 'spirit' of improv for adventure or similar in everyday life), which is distinct from the onstage improv or the implemented techniques for creativity.

> I'm pretty big into meditation so… Always like striving for like equanimity just-. And I think that… Improv helps that you're kind of rolling with whatever comes. There will be good things, will be bad things and you just… Improvise all of that (Donald, *PNT*).

> It's daily really [to apply improv principles in life]. I mean I do have it tattooed on my arm (shows) as well, so it's always going to be there to remind me to-to kind of take on board what's coming. (Becky, *ND*)

Participants discussed benefitting from becoming more accepting and present in life (including with people and their ideas). Acceptance is a broad concept that can be applied in a variety of ways, which can occur on- and off-stage. In the applied sense, acceptance of the moments and people within life can be seen as building on the moment or with the people. The resultant impact seems to be due to cognitive flexibility.

> And, to really generally try to accept, things that are happening in my life. 'Yes, And-ing' what's going on, with my relationships, my- and my work (May, *ND*).

> I think that it has helped me very much… be more flexible, and more able to… appreciate changes as they come up. And more willing to… accept things as they are (Viola, *ND*).

Lastly, being able to go with the flow (e.g., letting go and trusting in the moment, continuing in the moment, working with whatever happens) and taking risks allowed people to discover and have experiences. This entailed social contact by risking talking to a stranger or trying new food, such as with the 'spirit' of improv.

> …when you're growing up with autism, you tend to become very set in your ways. Like, for example, like with, uh, food, I was definitely very picky with food when I was younger. …I was on holiday, in, umm… Dubrovnik in the Mediterranean and … [needed] to 'Yes, and' this [food] or otherwise I'm going to starve. So. Yeah, and then, low and behold, there were certain dishes there was like this is great… (Jack, *autistic*).

And I was in a bit of a solitary headspace at the time, … [but] that thought popped into my head, and it was like, well… I could just- maybe I should just put my book down and engage with, you know, where I am and I was a bit anxious at the time, as I was in a bit of a heightened anxiety period of time, and I looked up and there was a little old lady sitting next to me, with a pair of amazing Wellington boots on, absolutely amazing. They were the coolest most rock'n'roll boots I've ever seen, and they had like skulls, on and stuff and she's really old; she was like 70, but she just looked really cool, …And I just sort of said something about it, 'cause I could. I could just got really excited about her Wellingtons. …she's been someone that's really important in my life, so if I hadn't have done that… I would never have made that friend. So does that, and it was very much, the thinking was a, 'Yes, and' moment, you know it's going to roll with this. I'm actually going to talk to that person, which normally, you know, I wouldn't have done when I was like that (Rachel, *autistic*).

Probably actually taking this position with the theatre because we closed in March last year due to COVID and then we had a devastating flood in July which left our theater inoperable. And then I got offered this position in August. So… [I took it, but,] you know, job security isn't really there right now…. Rolling with the punches (Joan, *PNT*).

Theme 3: Interpersonal, social and communication skills and human connection

Gaining interpersonal, social and communication skills occurred for both non- and autistic participants. They mentioned learning and developing this area,

exploring skills such as turn-taking only for autistic participants, and cognitive empathy only for PNT improvisers. Participants discussed deepening interpersonal relations through developing social skills, such as establishing a rapport. Further developments were on communication; for example, improving active listening and "just being able to articulate anything has been huge." (Charlie, *autistic*). For neurodivergent (including autistic) participants, this was through feeling free to express oneself and connect with others.

> …if you have something, that is, involved in connecting with other human beings, and you have a purpose to it and it's structured, as an autistic person, that makes it easier… (Jill, *autistic*).

> It certainly I think makes you looser, and in what are often times …very rigid formats of communication (Keith, *autistic*).

The PNT participants spoke about human connections and being human. This included developing an understanding of people, their views, and perspectives (i.e., appreciating or recognising that people have differing perspectives).

> …in terms of why I do it and why I want other people to learn it is… to welcome each other back to humanity (Gary, *PNT*).

> …being able to listen to those [people or their] stories and to understand their perspective on things is pretty important... (John, *PNT*).

In addition to social and communication skills, it was found that improv can be directly applied to life. This feature was beyond what they initially expected to gain from participating in the improv.

> …even something like, going to a shop and asking for like assistance and help. …I now have this trick in my mind where I'm like, 'just pretend you're doing a scene' (Jack, *autistic*).

Theme 4: Gains in Mental Health, Quality of Life, and Well-being

Improv appears to offer its agents gains in mental health, QoL and well-being. First, mental health benefits were identified only for the two neurodivergent groups. Examples of mental health gains provided by participants included less depression, lower levels of anxiety or stress, gaining acceptance from others, and transforming emotions through embodiment and release.

> And allows me to be more relaxed. …when I was younger …I had have a week or or two where I- where I was basically on an extended depression... Improvisation is allowed me to, to kind of break into that (Del, *autistic*).

> I think there's a mental health part of this. I think, the only place that I was safe from bullying, in a team, was in the improv circle. Um. Because my inappropriateness was acceptable (Jo, *autistic*).

Interestingly, mental health was positioned as only when the individual is *ready*; this was specifically commented upon for people diagnosed with anxiety

(not autistic). As such, this is an important consideration when delivering improv training.

> I do remember a lady a couple years ago, who just she got halfway through the course … and I was like, 'Oh no this is this has probably thrown her,' and I kind of went up to her and she was crying … It's just not she's just not ready for it. So yeah, it's like, '…we'll still give you a refund. Go and go and do something fun, with that,' you know (Becky, *ND*).

In relation to QoL, participants reported that improv helps improve aspects of emotional well-being, such as through the ability to be their self and gaining interpersonal connections (Schalock et al., 2002, 2016), gains in their self-determination (with participants discussing personal control; Shalock et al., 2002, 2016); for example, through creative autonomy and making choices. In addition, personal development was discussed, such as cognitive development, flexibility of thought, being relaxed, and self-control (Schalock et al., 2002, 2016). These may well have been through gaining an empowered self, access to community and due to personal development.

Emotional well-being includes developing self-esteem and self-concept (Schalock et al., 2002, 2016). All improvisers experienced these and gained confidence, courage, and the ability to manage the unexpected.

> I do end up energised after a show…. It's just a mood impact (Elaine, *ND*).

Absolutely. I think. We were all that cool, once. As, as infants and. We are socialised out of. Out of those. God given it – for lack of a better term – inborn traits. …I teach, it's trying to unteach all of the hand slaps that they that a person's received over the course of their lives that. Compartmentalised them that shut them off that make them believe their ideas are not worth pursuing, and then they have no self-worth. So why would they want to speak in front of people and open themselves up? That kind of vulnerability? If they're just going to be chastised and made to feel worthless? …The way the world so deftly (laughs) does that for us (Gary, *PNT*).

[Improv] has really helped with my self-confidence, and self-esteem to find something that I'm really good at (Susan, *autistic*).

Participants reported experiencing personal growth through a greater understanding and perception of themselves in a positive light. Therefore, they were afforded the freedom to be their creative self (as per self-concept) and to make decisions (e.g., affirming their self-identity through the comparison of the ideal and actual self; Carr, 2003).

…the benefit would be, to have kind of creative freedom. …which is not always present in everyday interactions, 'cause you always having to, monitor what you're saying… (Susan, *autistic*).

Improv appeared to be a vehicle for personal development through participants gaining self-control, increasing cognitive competence, and reducing the rigidity of thinking. Regarding cognitive competence, participants found

improv to be similar to brain exercises (i.e., the games being a mental "workout," Viola, *ND*), which improved their concentration and focus, working memory, and problem solving.

> Self-control. That element of it… You never see it enough, you know… It's this big deal (Pat, *autistic*)z.

> But ever since doing improv, just the practice of just speaking and talking, just, …not holding back on, on what I'm about to say. …that's one key benefit (Michael, *ND*).

With reference to well-being, all neurotype groups discussed elements of hedonistic well-being, which was a key aspect revolving around being happier or experiencing fun and joy. Often, participants suggested that they began improv because it was fun and found more benefits afterwards.

> But personally, I think, yeah, in terms of my, my own experience, i-it's been an absolute like kind of err, err, lightning bolt shot through the arm of 'Oh I, I can, take everything I learn improv, apply it to my own life and ultimately be- err, -come like a happier person (Jack, *autistic*).

> Initially I just started doing it because it seemed... um… effortless and fun (laughs). Do that-. To have a bunch of merry compatriots with the same kind of group mind with which to fuck around. Was. Was the attraction and ultimately the goal (chuckles and talks) to want to continue to do (Gary, *PNT*).

Participants spoke about improv being life affirming, such as improv being their 'way of life', for example, "I can't do the learn, understand, remember, cross-reference thing, that most people do that they think is clever. I have to improvise all the time." (Pat, *autistic*). Another example is how they see the world as necessary to their life, such as "…it's become second nature because I've been doing it for so long." (Del, *autistic*). In addition, they may experience life affirmation and validation of their chosen activities or professions.

> And yeah, it's wow what a life-life affirming moment that was for me just to have his father come to us and be like. Give us both big hug and you know he was crying and we were crying and just everybody's freaking crying right? So emotional and just such a beautiful beautiful moment and that that solidified. That moments probably solidified my my commitment to improv more than anything else, just that moment alone. It was brilliant (John, *PNT*).

> I don't know what kind of person I'd be, or where would be in my life, without improv. I honestly feel like, improv kind of saved me (Jack, *autistic*).

Theme 5: "I've gone full autistic" (and can learn why PNTs are like they are)

This theme explored various aspects that support and foster autistic people in improv. Improv may have helped them to become their autistic selves due to being accepted (and potentially where autistic communication is accepted). Improv seems to have utilised the participants' autistic strengths. As Bill (*autistic*) states, "…people on the spectrum or, at least myself, are secretly, good

at [improv]… umm, 'cause we spend so much time and energy, reflecting on- I, I guess I'd say stuff." Improv seems to provide opportunities for a more complete understanding of themselves, PNTs, and the world.

> Because a lot of autism is you come up with ideas and, the, mental filter in your brain is like that's a bad idea. Don't do that, but improv is a lot of turning that particular filter off and then just doing the thing (Charlie, *autistic*).

> I think the benefits of actually kind of doing the improv, kind of, in a, in a formal sense is that it-it's, it kind of gives a structure to that, you know… (Jill, *autistic*).

Moreover, an improv has structures and rules that have been reported to be useful. The provision of the structure was both administrative and creative for one participant. What is more there was a reported duality of improv being controlled and uncontrolled.

> It's a structured place that's controlled, but we're going to do this thing where it's like (in-take of breath with a laugh), the thing that we're doing is all about not being in control (Bill, *autistic*).

In some cases, theatre has provided the opportunity to learn to be themselves (onstage). Participants said that some autistic participants developed into their full autistic self by admonishing the societal pressure for masking.

> …we were, deliberately being very much ourselves, and not masking. Umm. And this is actually the opposite in a way of pretending not to be

autistic. This is actually the fact of allowing yourself to be autistic, on stage (Rachel, *autistic*).

Although some participants stated that they do not improvise with other autistic improvisers, some discussed being in the autistic community (as advocates or similar). In view of this, these gains occurred in a dominant PNT improv space situated within their broader autistic, personal social space. Even so, not all autistic participants had an autistic social space available to them nor was this necessarily desired.

Discussion

This study sought to explore the experiences of improvisers across neurotypes (autistic; non-autistic yet neurodivergent; and PNT). Many of the key findings were across the three neurotype groupings used in this study, which include improvisers experiencing both personal and professional benefits and QoL gains (Theme 4) (Research Question 1). Neurodivergent (including autistic) improvisers gained mental health benefits, and autistic people spoke about being able to be themselves and better understand PNTs. These did not differ across those with improv being their profession or as a hobby.

In addition, autistic experiences of improv included the acknowledgement that the PNT world is problematic, and its impact is noticeable (negative impact of the social world (IPA]) (Research Question 2). Therefore, improv can only help to a certain degree. For example, masking was a longer process for some autistic people, so improv had no perceived effect upon this phenomenon.

Similarly, for all neurotypes, there were other facets of their life other than improv that offered benefits.

Neurotypes

Although the benefits found from improv are the same across neurotypes, there are nuances in the differences between the groups' experiences. For example, in social and communication skills (Theme 3), PNTs gain similarly to autistic people; however, as an example, the focus on turn-taking is more prominent for autistic improvisers.

The identities that a person holds may have different effects. As per these participants, an ADHD identity may be more prominent socially with autistic people (as per 'life beyond improv'), creating opportunity for social comparison. Such identities from within the in-group suggest that difference builds both self-knowledge (e.g., knowing to socialise with neurodivergent people to whom you would not be an incumbrance) and becoming an outsider within your identity (e.g., the prominence of one identity over another). This is similar to intersectional identities, where both can be 'othered' by the other identity (e.g., gender and sexuality and being autistic within one and another's community; Hillier et al., 2019). Nevertheless, the extent of these experiences for participants was not proposed to be othering but acknowledged as existent.

There has been an increase in the mental ill-health of neurodivergent people (Lai et al., 2019). PNTs can have mental health issues (even if not prolonged), so there is likely a plethora of unknown reasons for this not being spoken by these participants. There are two prospective reasons proposed: one is

that the use of comedy may support coping without awareness, and the second is that mental ill-health may not be greatly felt. First, comedy use may be less perceptively connected to mental health issues. For example, the use of naturally or unconsciously implemented coping humour may reduce mental ill-health (Lefcourt & Martin, 1986; Martin, 2007/2018; Martin & Lefcourt, 1983; Newman & Stone, 1996), or these participants have not connected improv to past mental health experiences. Second, PNTs may not feel the mental ill-health greatly. As per Pilgrim and Rogers (1999), mental ill-health could exist through societal reaction (labelling theory; Scheff, 1974), but went out of fashion due to not explaining mental illness' primary deviance (i.e., a person's primary deviance would be more impactful, from biological, social, or psychological means). Nonetheless, secondary deviancy could be prolonged by labelling. Goffman (1961) discussed the 'betrayal funnel' in which people would increasingly succumb to the label, which was corroborated in community settings (Kronick, 1976). Despite this, as suggested above, this theory is undermined by various studies (Gove, 1970, 1975; Rosenhan, 1973). It is being suggested that only the secondary deviance ('deviant' behaviour from a felt stigmatised identity, Pilgram and Rogers, 1999) would remain when the 'labelling' or helplessness is sustained. Learned helplessness (Seligman, 1972; Maier & Seligman, 1976; Miller & Norman, 1979) links well to this theoretical framework regarding mental health. This could mean that PNTs would have to experience less helplessness from their deviance (and mental health directly) for this to be true. In turn the neurodivergent (including autistic) participants have intersectional identities (e.g., non-binary) potentially leading to further labelling that 'others' them and sustains the depreciation of mental health. In any case, much like the nuance of improv

not helping with everything, engagement with anything to help someone's mental health must be the right moment for the individual. Such as decreasing anxiety, the timing for when the person can go beyond their current boundaries is important (whether autistic or not).

It could be suggested that there are differences within the same neurotype group, such as with the pedagogical differences of improv they practice, or its embedded nature into the theatre work they do (i.e., being one element of their practice with which they have engaged). Similarly, their experience can be different with exploring the various schools of improv locally (or online, globally).

Quality of life

The *autistic* construct of QoL is less known (Waldock, 2019) and even challenges to the currently used construct (Robertson, 2010). The minimal insight currently available suggests some proposed aspects of QoL that could explain how an autistic person may acquire better QoL. These are gaining a positive autistic identity, reducing misunderstanding of autistic people, addressing sensory needs and problems, and autistic people's participation in society (McConachie et al., 2020) (of which developing self-concept and self-determination has been noted in this chapter). It has been suggested and is acknowledged that a qualitative approach meets the call for an autistic voice in related research (by interpreting their experience aligned with known QoL constructs).

These findings seem to broadly align with QoL benefits as per Schalock et al.'s (2002) domains. Of the eight domains, this study fits well with seven of

those. As mentioned above, the themes depicted the participants' experiences across four domains (personal development, self-determination, interpersonal relations, and emotional well-being) including such examples as rolling with the moment, and creative expressivity when considering the complete dataset. However, the data also fit social inclusion, rights, and material well-being.

First, participants gained rights through acceptance (Theme 2), providing mutual respect, dignity, and equality (to some extent). Material well-being could be interpreted from the data as participants having employment status through improv or using improv in their employment (Theme 1).

Chiefly, social inclusion is apparent through participants being accepted as part of improv as a community of practice (Wenger, 2002). This would imply that their interactions are scaffolded; for example, networking in improv may include first seeing improvisers perform, or they play with them on stage before meeting them in 'real-life'. Furthermore, there is the possibility of a central topic for initiating interactions, such as general improv, or specific past, present, or future events or scenes (i.e., as structure and shared practice). One finding of particular importance is acceptance, which is argued to be a core aspect of social inclusion (Robertson, 2010). Autistic identity can be a protective factor for self-esteem and mental health (Cooper et al., 2017). Therefore, within improv, this may occur through the acceptance of their identity. Brady (2022) demonstrated how performance, in general, may lead to better self-advocacy and creative expression. In the same way, the reported findings identified the potential for self-concept within personal growth, affirmation, and emotional well-being. Self-determination akin to Causal Agency Theory (Deci & Ryan, 2004, in Shogren,

2015) suggests that acceptance is key and focusing on strength-based approach within 'interventions' would help form social inclusion. For autistic people, leveraging strengths and meeting potential executive functioning, such as increased cognitive flexibility, may 'better' support self-determination (Shogren et al., 2021). In general, past research with people with disabilities has identified the potential that quality of life might not have a significant effect of improv, yet increased well-being would be present (Hainselin et al. 2019).

Well-being

Autistic people may gain both hedonistic and eudaimonic well-being through improv. These findings on why improv has some form of personal importance reiterate how improv is fun and provides happiness (hedonistic well-being; Deci & Ryan, 2008). Yet, fun (often stated as a reason to begin improv) is not the only benefit. Participants connected with others, collaborated, developed within the community, and gave to others through co-creative, social emergent humour and/or theatrical experiences (eudaimonic well-being); therefore, individuals may have experienced a meaningful life (Baumeister et al., 2013). This means that they could have gained psychological well-being and possible health benefits from having a rich life of purpose and meaning, continued growth and quality connections to others (Ryff & Singer, 2008).

With rehearsals and developing understanding of oneself, improv is a form of practice of all those occurrences that may or may never exist. It is the othering defined by human development (Winnicott, 1953); we understand ourselves inline with our experiences. Hence, we know ourselves by having 'not-me' encounters. This self-understanding links well to eudaimonic well-being.

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Going "full autistic" in improv: reduction in anxiety and other benefits

According to Deci & Ryan (2008), eudaimonic well-being is about living well or actualizing one's human potentials (understanding what facilitates one's potential), which increases our psychological well-being. For example, being accepted as autistic and having creative outlets or release could be perceived as self-actualisation (i.e., autistic persons' maximisation). For this reason, it seems as if improvisers can envision the future and potential of oneself by means of (the cyclical process of) personal growth.

According to Ng and Fisher (2013), a multilevel approach to well-being that accounts for all aspects of life would be beneficial. This would entail environmental factors, such as culture (perhaps autistic culture; e.g., Dekker, 1999; Gokh et al., 2018), and structural and systemic barriers. With this in mind, improv is not enough for (autistic) people in a life with other difficulties, such as discrimination internal or external to improv (prejudice) and a stigmatised identity (self- and social/public-stigma) (ignorance by knowledge, prejudice by attitude, and discrimination by behaviour; Thornicroft et al., 2007).

Complicated Life

Living in a world predominantly PNT can lead to issues (professionally and personally), e.g., the actor's network being "prissy" (as stated by a participant) and needing to mask is devoid of their actual self-concept. For personal life, a complication could occur through the experience of unmasking and the obstacles of trying such after many years of unconsciously doing so. Masking occurs from the political power structures of oppression, creating a stigmatised identity (Tyler, 2020), and positioning autistic individuals within a social system in which the interaction-based consequence (i.e., masking and

passing) occurs; therefore, breaking from these can be a difficult process.

Nonetheless, the duality of masking and theatre may not be an issue. Some

participants experienced a release from being onstage as themselves. Considering

the concept of masking, it could be positioned that improv would promote doing

such; however, based on the data, this does not seem to be the case. There could

be a distinction between autistic people masking and performing characters

within improv. The performative nature of improv could be that an agent uses

their own self in order to construct fiction in the moment, or some opposition to

themselves (or even somewhere in-between). PNT improvisers suggested that

they do not perform other than themselves but adopt roles in life. In improv, this

could be similar across neurotypes. The roles in which are chosen or played out

(assumedly willingly) do not take a toll on any performer no matter the

neurotype.

Nevertheless, the theatre industry (amateur and professional) may have

practices that 'other' autistic people. It is not that negative experiences in life are

definite, because in everyday life, some autistic people may not feel the impact

like others. However, in cultural and creative industries, these practices may lead

to systems that are not conducive to autistic theatre professionals or students.

Their upbringing and self-conceptualisation, exposure to the negative

discourse, and the systemic barriers faced may be contingencies for gaining

benefits (e.g., Bagatell, 2007; Broderick & Ne'eman, 2008; Brownlow & O'Dell,

2013; Huws & Jones, 2010; Parsloe, 2015). Autistic people could feel

disenfranchised from theatre due to the 'othering' experienced and the counter

intuitive PNT system of interpretation. Autistic lived experiences may differ, yet

the resultant outcome could be similar, be it positive or negative. One potential contributing factor might be the time of their diagnosis and the investment in the diagnosis. For example, autistic people in the 1970s would not have gained a diagnosis (as diagnosis was not possible of its own until 1980s; Gernsbacher et al., 2005). This may have strengthened their resilience to the PNT world, as per the theory of learned helplessness and the cognitive mediating factors (i.e., knowing they are not the problem, or understanding there are others with greater needs, etc.) (Peterson & Steen, 2002). This is similar to Chapman & Carel's (2022) discussion of epistemic injustice or oppression (as such those empowered have a valued voice). Furthermore, autistic people experience bullying, even by friends —sometimes called 'mate crime' (Forster & Pearson, 2020; Pearson et al., 2022a, 2022b). In any case, the affirmation experienced from an autistic space can be a revelation for autistic people (Sinclair, 2010; for a description of Autscape, see Buckle, 2020). In contrast, it can create such an adverse difference upon exiting back into the PNT social world (on the differences, struggles and ease between social worlds, see Idriss, 2021). This puts improv in a similar position to an autistic space, at least for some. Regardless of the neurotype, maturation was a factor to consider; as one grows older, it becomes easier to understand oneself and the way of the world.

Conclusion

This chapter aimed to explore the experiences of improvisers across neurotypes (autistic, non-autistic yet neurodivergent, and PNT). Neurotypes were not found to vary the experience that improvisers had beyond two key aspects: mental health not being mentioned by PNTs and autistic responses to neuro-

normativity in life. Nonetheless, neurotypes did not prospectively seem to matter as much as like-mindedness. Across all improvisers, participants discussed benefits related to quality of life (Schalock et al., 2002) and well-being. It has been proposed that multi-level approach is better fitting than singularly situating participants' experiences into only hedonistic or eudaimonic well-being. This corresponds with autistic people having a complicated life. Thus, an important context seems to be the negative impact of the neuronormative social world. Some may not experience stigmatisation of themselves, whereas others may. Additionally, all improvisers had other facets of life that helped them. The level of experience within improv was widely varied in this study, but of interest would be developing an understanding of newly trained autistic improvisers.

In Part 1, studies using retrospective data have been reported; in Part 2, there will be a study of autistic participants new to improv. The data reported will include adapting sessions to meet autistic needs, the benefits experienced, and measures of anxiety (state-trait, social anxiety, and uncertainty).