



TAKIWATANGA **GUIDELINES FOR** **AUTISM FRIENDLY** **APPROACH IN DANCE** **THEATERS**

by

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Heike Antoci Photography



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1. PREFACE

By Zoltán Hatala

"If you've met one person with autism, you've met one person with autism." –

Dr. Stephen Shore, autistic advocate

Being a person with autism has provided me with many ways and opportunities to express who I am to the wider world. Autism is a condition that is a very beautiful aspect of many people, and I am always open to sharing about it with others, as I want people to truly understand our differences and see how colorful we as humans can be. For these reasons, I was very excited to be a part of this project. I would like people to see this project as a means to understanding our differences in a much deeper way and to enable them to really immerse themselves into the wonderful world of the human mind. Furthermore, I want to help enable people who are on the spectrum to enjoy the beauty and shine of theater. I, myself, have been surprised by how much of an immersive and joyful experience it can be. I am also excited to provide aid to people on the spectrum, in order to encourage them to have this experience. Another thing that I wish to spread to people is the idea of inclusivity. I personally feel a deep connection with this concept, and I truly believe that it is one of the most powerful tools society can offer. It can enable so many diverse people to gain access to the wonderful world of theater and other forms of art, that I wish to support any and all forms of it, as I know what a wonderful impact a performance can have on someone.

Every person on the autism spectrum is very special and unique, and one thing that neurotypicals can learn from them is the ability to ignore peer pressure and the useful ability to concentrate on a goal without getting sidetracked. I remember when I was younger, I was often confused by the world around me, and I would have a lot of trouble understanding why things were the way they were and why the people

around me felt uncomfortable by me and the things I did. For instance, I would often act out movies that I played in my head, complete with hand movements and sound effects, which to me seemed completely normal, however, was very alien to my peers, who were therefore, very shocked and scared. I had to learn manually through lessons done by a professional to be able to understand the language that neurotypicals (NTs) use to communicate and what things were considered socially “normal”. These things could include eye-contact, respecting personal space, or even the simple act of recognizing the emotion of someone from their body language. These things come naturally to an NT. However, through the process of having to learn these things, I perhaps gained knowledge that was unique and special, for which I am very thankful for. I can, therefore, become an advocate for those on the spectrum, by explaining my perspectives in depth to neurotypicals and to those professionals in the dance world. I can also provide a safe anchor point that can greatly help a person on the spectrum understand the world we live in and encourage them to enjoy the wonders that it offers. Overall, I feel honored to be a member of this process and to be able to make a lasting impact on people and their understanding of the society we live in. To conclude, I hope that through the efforts of this project, the world of theater can be opened to many new people who are diverse and unique. Through inclusivity, they can experience the joys of this art form and become immersed in the colorful universe of dance and theater and provide a fresh input to make this artform more inclusive and diverse.

2. MISSION and REALIZATION

2.1. What is Praetorian Non-Profit Art & Health?

Praetorian is a charitable organization that specializes in well-being management, organizational development, ethical leadership, coaching and training.

2.1. What does Praetorian do?

Praetorian promotes health, education, and culture, supports artists in crises and aims to facilitate the transformation process of theaters to make safer, anti-abusive performing environments.

The organization conceptualizes diversity, equity, inclusion as social health questions and promotes neurodiversity.

2.2. What is the mission of the project Takiwatanga?

“Takiwatanga” is aimed at curating an interactive set of guidelines for artists and members of the dance community and organizations who would like to create autism-friendly dance performances. “Takiwatanga” is a Maori word for autism, meaning “in his/her own time and space”.

Many individuals on the autism spectrum have sensory differences that make attending dance performances impossible due to the overstimulating nature of particular performances. By transforming certain aspects of a performance, such as the choreography, lighting, sounds, and dramaturgy, attending a dance performance can be made possible with the help of these inclusive guidelines. The project’s team includes those living with the autism spectrum condition, dance artists, choreographers, lighting and sound experts, as well as therapists and neuroscientists specialized in ASD. Raising Awareness of Neurodiversity-Inclusive Practices within the Dance Community is the mission of our project.

3. WHO ARE THE TEAM MEMBERS?

ISTVÁN SIMON - Project Leader, Cultural Manager, Researcher, Principal Ballet Dancer

István Simon is a lecturer and doctoral candidate at the Faculty of Business and Economics of TU Dresden, a project developer and manager of Chemnitz 2025 GmbH European Capital of Culture, CEO of Praetorian Non-Profit Art and Health Consulting, the project leader of Taming Our Trauma, BrainFood, Takiwatanga, cultural manager, pedagogue, dance artist, researcher and producer of The Journey Productions. He has initiated and manages Help-Dance / Tanz+Blau+Gelb, a Germany-wide Ukrainian help program for refugee dance artists. As an international dance artist, Mr. Simon is regularly invited to the most prestigious festivals and gala performances in the world, and he has worked in 21 different countries and collaborated with 43 different theaters. He has performed in some of the most important venues in the world, such as Paris Opera, New York City Center, Tokyo Saitama, Kremlin Moscow, Semperoper, Dortmund Opera, Teatro di San Carlo. Previously, Mr. Simon was a principal dancer of the Semperoper Ballett. As a pedagogue, he has taught at 3 universities and many private schools globally. As a cultural manager, he has produced and organized performances in cooperation with the Goethe Institute. He has worked as an assistant to Sabrina Sadowska, Ballet Director of Die Theater Chemnitz, worked for Stiftung Tanz – Transition Center Germany, and arranged performances for the greatest star ballerinas of our time.

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LinkedIn



Darja Štravs Tisu Photography



Heike Antoci Photography

Boglárka Simon-Hatala - Scientific Leader,

Neuroscientist, Health expert, Coach

Boglárka Simon-Hatala has dedicated her professional career to the support of professional dancers. Her first academic degree is in physiotherapy, and she has specialized in the field of injury prevention, rehabilitation and alignment correction of elite professional dancers. She has spent the first decade of her career in Hungary, where she worked with the Hungarian National Ballet, the Hungarian Dance University and with the whole spectrum of the elite professional Hungarian dance life. She has realized very soon that the locomotion system cannot be efficiently targeted by therapies without contextualizing it in the overall human health therefore she acquired an MSc in health science pedagogy. In 2008, she was invited to join the team of the Semperoper Ballet of Dresden as body awareness coach. She spent 10 years with the company and during this period she started her international career as associated physiotherapist and body awareness coach – among others – of The Forsythe Company, the Kremlin Ballet Festival, Sylvie Guillem's farewell tour and Jacopo Godani's DFDC. Her focus turned to inclusivity and ethics to promote a psychologically safe working environment as an aspect of health protection measures. Her interest in mental health and neurodiversity motivated her to obtain a neuroscience MSc at the King's College London. She is in a PhD research program of the Semmelweis University Budapest, her field of research is trauma informed care.

[Linkedin](#)

Takiwatanga



KATY M. MCBAIN – Project Assistant, Learning Support Coordinator

Katy McBain is a secondary learning support specialist at an IB international school in Germany. She has a Masters in Education with an emphasis in Autism Intervention. She is passionate about inclusion, raising awareness about neurodiversity and neurodiversity acceptance, as well as advocating for the diverse learners in today's classrooms.

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SARA LARRINGTON – Neurodiversity consultant, Learning support coordinator

Sara Larrington is a primary student support specialist who has taught globally, including in the UK, Thailand, Panama and Vietnam and is currently at an IB international school in Dresden. They have presented internationally on topics related to inclusive education and neurodiversity. Sara is neurodiverse, having an autistic spectrum condition and is passionate about how this condition can be seen through a positive lens.



JOHANNES SCHADL – Composer Musicologist

Johannes Schadl, born in Graz, began his work as a freelance lighting designer in 2010. Since then, he has created numerous lighting and video installations for events, gala evenings and concert production. During this time, he successfully completed his training as a specialist in media informatics and media design and the master school for event technology. Since 2018 he has been working at the Graz Opera under the direction of Sebastian Alphons. He made his debut as a light designer at the Graz Opera with Andreas Heise's ballet "Sandmann". Further lighting designs followed for opera, ballet and dance performances



Volker Metzler Photography

ANDREAS HEISE – Choreographer Opera Director

Born in Germany, Andreas Heise started choreographing regularly for the Norwegian National Opera & Ballet in 2005. In 2015 he made his UK debut as Associate Director/Choreographer in Benjamin Britten's Death in Venice at the Garsington Opera. In June 2017 Andreas had his choreographic debut at the Salzburg Festival in a production of Handel's Ariodante. Further commissions include works for the Stuttgarter Ballett, the Staatsballett Berlin, the Ballet Company at Oper Graz, and Teatro Real Madrid. His debut as Director/Choreographer in a new production of Purcell's Dido and Aeneas in a collaboration between the Norwegian National Opera & Ballet took place in March 2019. His choreographed and staged version of Franz Schubert's Winterreise has been presented in Portugal, Spain, Germany and Pakistan. www.andreas-heise.com



VALENTINA TURCU – Dramaturg Choreographer

2015 Kyoto Prize nominee Valentina Turcu is an outstanding dance artist – resident director and choreographer at Slovene National Theater Maribor. Her creative oeuvre is comprised of over 140 ballet, theatre and opera productions and her ballets are guesting around the World. The Croatian-born artist is trained in classical ballet, and has studied and danced with the great master Maurice Béjart. She has choreographed various productions – from the classical narrative full-length ballets, to the avant-garde, from large-scale productions to individual choreographed dance pieces and directed few theatrical classic plays. Carmen, Hamlet, Romeo and Juliet, Peer Gynt, Master and Margarita, Anna Karenina, Dangerous Liaisons, La Bohème, The Tempest, Death in Venice, Bodas de Sangre, A Streetcar Named Desire, Eugen Onegin, Don Juan, La Dame aux Camellias, Madame Bovary are just some of the stand out productions from her extensive body of work. DEATH IN VENICE – Croatian National Ballet DANCE FILM – Slovene National Day of Art & Culture Website



KIAN JAZDI – Composer Musicologist

Kian Jazdi is a musician and project designer based in both Hamburg and Berlin. Kian's projects are curious, blending many influences, whilst often searching for transcultural interfaces, thus bringing people together with different art backgrounds, cultural backgrounds, ages, and sexes. Both his classical music background in combination with the immersion in electronic music productions by working with analogue synths, and the Persian musical heritage of his Iranian father, shape and drive his style of music as well as the choice of projects he dedicates his passion and time to. Kian is working and has worked with Elbphilharmonie Hamburg, Konzerthaus am Gendarmenmarkt Berlin, Deutsches Schauspielhaus Hamburg, Staatstheater Hannover, Karlsruhe & Stuttgart, Vocalensemble Rastatt & Les Favorites, junge norddeutsche philharmonie and others.



ZOLTÁN J. HATALA - Autism spectrum condition consultant

Zoltán is a first-year mechanical engineering student at the Technische Universität Dresden as well as an Astrophotographer. Previously he was a student at the Dresden International School. Due to the profession of his parents, Zoltán had the opportunity to visit many theaters throughout Europe and was able to be present both backstage or in the auditorium during performances. Zoltán himself has overcome many of the challenges of the Autism Spectrum Condition. He has consciously, systematically, and successfully developed his own social skills, therefore he is able to offer highly valuable insight, knowledge, experience, and solutions as a consultant.



**Associated member:
KIMIA TAFRESHIAN -**

Kimia Tafreshian is a medical doctor in Berlin, Germany. She got her medical degree at Charité University in 2020, also she had the opportunity to encounter research experience during a yearlong stay at the Rockefeller University in New York. After completing her medical degree, she worked for 1,5 years as a psychiatric resident, she is starting her residency training in neurology in February 2023 in Berlin.



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Associated member:
COURTNEY RICHARDSON

Courtney Richardson is the principal ballerina at the Semperoper Ballet in Dresden. The American-born ballet dancer is one of the most prominent international representatives of post-classical ballet. Her repertoire stretches from the leading roles of the most well-known classical ballets to contemporary choreographies created by the most recognized choreographers of our time. She studied at the National Ballet School of Canada and was a member of the National Ballet of Canada and later at the Royal Ballet of Flanders. Her outstanding professional work has been recognized with numerous awards, including the Dance Europe Critics' Awards three times and the "Outstanding Dancer of the Year" award.

4. WHAT IS AUTISM FROM SCIENCE'S PERSPECTIVE?

by **Boglárka Simon-Hatala** neuroscientist, coach

4.1. Scientific background

This chapter discusses the scientific views on autism. In this context, the commonly accepted terminology to describe the condition is Autism Spectrum Disorder (ASD), however, as one will see in chapter 4.3., there are other, non-scientific terminologies to support the empowerment and social acceptance of the individuals on the spectrum. To be in alignment with the current academic approach in this chapter, we use the term Autism Spectrum Disorder (ASD). However, for our project, we choose to use a more neurodiversity-affirming approach. Therefore, for the other chapters that are discussing the performing arts aspects of the condition, we are going to use the term "Autism Spectrum Condition", which we feel is in more alignment with the views of our autism project team members and can potentially offer a more positive and authentic interpretation.

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder that affects social interaction, communication and behavior. It is considered a spectrum disorder because the symptoms and their severity can vary greatly from person to person.

The current definition of Autism Spectrum Disorder is provided in the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-5) published by the American Psychiatric Association. According to the DSM-5, a person must display persistent difficulties in social communication and interaction and restricted, repetitive patterns of behavior, interests, or activities to be diagnosed with ASD.

The following are some of the common characteristics associated with Autism Spectrum Disorder:

1. Social interaction difficulties: individuals with ASD may have difficulty initiating and maintaining social relationships, understanding social cues, and interpreting nonverbal communication.
2. Communication difficulties: some individuals with ASD may have difficulty with spoken language and may be nonverbal, while others may have delayed language development or use language in a way that is atypical.
3. Restricted, repetitive patterns of behavior: Individuals with ASD may engage in repetitive behaviors, such as hand flapping or rocking, or have restricted interests in specific objects or activities.
4. Sensory aspects: many individuals with ASD experience sensory sensitivities, such as over- or under-sensitivity to sensory input, such as sound, touch, or light. Some individuals may find certain textures, sounds, or smells overwhelming, while others may seek out sensory stimulation.
5. Linguistic understanding: Individuals with ASD may have difficulties understanding language, including figurative language, idioms, and sarcasm. They may also have difficulties with pragmatics, which refers to the social use of language, including taking turns in conversation and understanding nonverbal cues.
6. Metacommunication understanding: Metacommunication refers to the implicit messages conveyed through tone of voice, body language, and other nonverbal cues. Individuals with ASD may have difficulties understanding these implicit messages, which can lead to difficulties in social interaction. It is important to note that the severity of these symptoms and characteristics can vary greatly from person to person, and that individuals with Autism

Spectrum Disorder can lead fulfilling and productive lives with the right support and resources. The exact cause of Autism Spectrum Disorder (ASD) is not yet fully understood, but research suggests that it is likely a combination of genetic and environmental factors that affects brain development and functioning. Several studies have identified differences in the structure and function of specific brain regions in individuals with ASD compared to typically developing individuals.

The following animated video of “What is autism?” is helping you to better understand the condition:



4.2. Neurological changes in autism

One of the brain regions that has been extensively studied in relation to autism is the amygdala, which is involved in processing emotions and social information. In individuals with ASD, the amygdala has been found to be larger and to have altered connectivity with other brain regions.

Another brain region that has been linked to autism is the corpus callosum, which is the structure that connects the two hemispheres of the brain. Alterations of the CC may lead to difficulties in communication and integration of information between the two sides of the brain.

The cerebellum, which is involved in motor coordination and learning, has also been found to be different in individuals with autism. Additionally, research has suggested that there may be differences in the way the brain processes sensory information in individuals with autism. Some individuals with autism may be overly sensitive to certain sensory input, while others may be under-sensitive.

It is important to note that while these differences in brain structure and function have been identified in individuals with autism, they do not provide a complete picture of the disorder and do not necessarily apply to all individuals with autism. Further research is needed to fully understand the neural basis of autism.

4.3. Word choice and labels: advocating the neurodiversity model and the visualization of the spectrum

People who are diagnosed with ASD can self-describe in a variety of ways:

- Autistic
- Person with Autism
- On the Spectrum
- Have Autism

We are suggesting the pie chart/spider web representation of the spectrum that emphasizes the individual profile of skills and characteristics and supports the concept of neurodiversity.

“The “pie chart” or “autism wheel” model is often advocated by researchers and those on the spectrum who feel it better encapsulates the diversity of experience within autism. Bradshaw, et al. (2021), for example, states that, “Using functioning labels and autism levels (from the DSM-5) can overlook the real challenges and barriers of autistic people who may not outwardly appear different, and minimises the strengths, abilities, and capacities of those who do.”



Source: Dr Claire Jack
<https://www.psychologytoday.com/ie/blog/women-autism-spectrum-disorder/202208/autistic-linear-spectrum-pie-chart-spectrum>

5. OVERVIEW OF THE ASPECTS OF A DANCE THEATER PERFORMANCE THAT COULD BE DISCUSSED, MODIFIED OR REFINED WITH FOCUS ON AUTISM SPECTRUM CONDITION INCLUSIVITY

by István Simon

5.1. Autism friendly theater performances: general considerations

Making a theater performance that is friendly for an autistic audience can help create an inclusive and welcoming environment. Here are some steps to consider when creating an autism-friendly theater performance:

1. **Sensory considerations:** Autistic individuals can be sensitive to sensory stimulation such as loud noises, bright lights, and strong smells. It is important to keep these sensitivities in mind when creating the performance and to minimize any sensory triggers that may cause discomfort.
2. **Predictability:** Autistic individuals often benefit from having a clear understanding of what is going to happen. Providing a clear schedule or script of the performance can help reduce anxiety and provide a sense of comfort. This includes scenes when the music, movements, and storytelling is more intense.
3. **Social storytelling:** Many autistic individuals have difficulty understanding and interpreting social cues and emotions. Incorporating social stories into the performance can help facilitate understanding and empathy.
4. **Communication support:** Autistic individuals may struggle with verbal communication. Providing alternative forms of communication, such as sign language, closed caption, or visual aids can help support their needs.

5. **Environment:** Creating a welcoming and inclusive environment is important for all audience members, but especially for those on the autism spectrum. Consider providing a designated quiet space, where individuals can take a break from the stimulation of the performance if needed.
6. **Autistic representation:** It is important to include and celebrate autistic individuals in the performance. This can be achieved through casting autistic actors, writing stories about autism, or partnering with autism organizations.
7. **Pre-show information:** Providing information about the performance, including the sensory elements, ahead of time can help prepare individuals for what to expect and reduce anxiety.

Every individual on the autism spectrum is unique, and it is important to approach each performance with an understanding of the individual needs of the audience. The most important step in creating an autism-friendly performance is to listen to and involve the autistic community in the process.

5.2. Autism friendly dance performances: specific considerations

Creating an autism-friendly dance performance can be a little different than a theater performance, but the same principles of inclusivity and sensory considerations still apply. Here are some additional

aspects to consider when creating an autism-friendly dance performance:

1. Movement cues: Dance performances often include movement that may be confusing or overwhelming for individuals on the autism spectrum. Providing clear and simple movement cues can help reduce anxiety and increase understanding.
2. Visual aids: Incorporating visual aids such as colored scarves or props can help provide a clear representation of the movement being performed.
3. Sensory-friendly performance: Like theater performances, it's important to minimize sensory triggers in dance performances. This can include reducing the volume of music, using calming lighting, and avoiding strobe lights.
4. Predictability: Autistic individuals often benefit from having a clear understanding of what is going to happen. Providing a clear schedule or script of the performance can help reduce anxiety and provide a sense of comfort.
5. Social stories: Incorporating social stories into the dance performance can help individuals on the autism spectrum better understand and engage with the performance.

6. Pre-show information: Providing information about the performance, including the sensory elements and movement cues, ahead of time can help prepare individuals for what to expect and reduce anxiety.

7. Communication support: Autistic individuals may struggle with verbal communication. Providing alternative forms of communication, such as sign language or visual aids, can help support their needs.

8. Environment: Creating a welcoming and inclusive environment is important for all audience members, but especially for those on the autism spectrum. Consider providing a designated quiet space, where individuals can take a break from the stimulation of the performance if needed.

9. Autistic representation: It is important to include and celebrate autistic individuals in the performance. This can be achieved through casting autistic dancers, writing stories about autism, or partnering with autistic organizations.

The most important step in creating an autism-friendly dance performance is to listen to autistic voices and involve the autistic community in the process. In the next chapters, we describe these principles in detail.



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6. AUTISM FRIENDLY SPACES: BODY AWARENESS IN THEATERS

by Boglárka Simon-Hatala

6.1. Introduction

Autism spectrum condition is often associated with sensory sensitivity and social anxiety. These characteristics can influence the perception of architectural and personal space, social distance, etc. In this chapter, different aspects of this topic are discussed in detail with the intention to offer different perspectives and ideas to take into consideration. The suggestions presented here are not mandatory measures and certainly not limitations, but rather ideas to further inspire creative thinking.

6.2. The social spaces of the theater

To reduce social anxiety in the welcoming spaces, various options are available and different theater buildings have different possibilities. To make your choices, consider how one can use the available resources and existing conditions most effectively.

6.2.1. Accessible information about the space and directions

Individuals on the spectrum often benefit from clear and direct information about the environment. This may include location of the entrances, stairs, ticket office, toilets, coffee, bar, location of the program booklets, information points, location of neurodiversity assistants, medical assistance, balconies etc. One suggestion would be to make this information available in multiple forms (i.e. pictograms, QR codes, maps, arrows, written instructions, videos that can be uploaded on the theater's website, etc.). It would also be beneficial to provide additional details regarding

time and space (i.e. this bathroom is 50 m/30 sec/ one floor above, etc.). In case information is available about the special characteristics of the building, consider sharing it with your audiences (i.e. rooms that are typically warmer than others, spaces with more intense smells, areas which are typically crowded or if there are very narrow staircases, etc.). This information greatly assists individuals on the spectrum to make informed choices, as well as reduce stress.

6.2.2. Creating a sensory-friendly atmosphere

In the social spaces of the theater building, think about how one can limit the possibility of sensory overload. Calming lighting design (see some tips in chapter 10.) and sound reduction (temporary sound absorbing panels in crowded or echoing areas), pictograms to suggest using headphones in loud spaces which increase the comfort of audiences – not only for those who are on the spectrum. Catering can be associated with strong smells in some cases, and some buildings are scented with special fragrances. Take a walk with a sensory awareness in the building where you prepare your production and imagine the version of the space that is the calmest. Try to recognize potential stress factors. In some cases, you can make simple and affordable adjustments. In cases where adjustments are impossible to make, properly informing the audience is crucial. Some individuals benefit from fidgets, weighted blankets, and/or earphones to reduce sensory stress. Offering or allowing these tools can reduce stress and aid in regulation.

Based on previous experiences or data, you can analyze the most typical movements of the crowd in the building, by identifying spaces or points where people tend to create clamorous groups where spaces are typically congested. There are multiple solutions to ensure free and fluid movement of the visitors from sectioning groups to more efficiently directing the audience members. You can inspire yourself from choreographic tools. Additionally, information on the hot-spots that are impossible to avoid can be shared in advance.

6.3. The auditorium – the performance space

From the point of view of neurodiversity awareness, audience spaces that are flexible in terms of their arrangement are the optimal scenarios to work with. In these conditions, seats can be spaced more loosely to provide greater social distance, avoid body contact while taking the seat, and to eventually allow more active movements that aid in self-regulation (i.e. fidgeting, upper body swing, jumping, etc..). However, an easily understandable floor plan and clear seat identification methods are advised. It is also possible to remove rows and seats and to provide folding chairs or pillows for everyone to make free decisions where to sit. The floor may also be marked with taped squares to create some structure.

6.4. Program booklets

Since detailed, clear and direct information is known to have a positive effect to reduce distress, it is recommended to widen the scope of the content of the performance booklets. Furthermore, making these documents available in advance in digital format on the website of the theater allows for individuals on the spectrum to make informed decisions.

Consider including the following info:

- Length of the acts and breaks; in some cases, length of scenes
- Potentially triggering sensory input (i.e. sudden loud noise, sudden change of volume, sharp lighting, etc.)
- Description of the characters, including their costume and the portrait of the performing artist
- Clear dramaturgy guideline and clues to follow
- Floorplan
- Autism friendly measures (i.e. if there are green rooms, autism assistants etc.)



Sami Rahim Photography

7. DRAMATURGY

by Valentina Turcu

7.1. Introduction

Theater is in essence, or, at least it used to be a phenomenon of bringing people together. Since the beginnings of European theater culture in ancient Greece, participation in a drama or tragedy meant, in a sense, being one with the community, the collective; attendance at a theater performance was, therefore, an integral part of the ritualized connection between the individual, society and the state. In contemporary times, however, theater has changed and, in many ways, radicalized in terms of explicitness, violence, (sub) genres and aesthetics, creating a new cultural and symbolic context for different audiences. In contrast, the concept of inclusive theater seeks to overcome this partiality towards a specific target audience through increased mindfulness and empathy.

7.2. What is dramaturgy?

You might ask, what is dramaturgy? Dramaturgy is the essential substance that connects all the layers and nuances of a performance. It is the invisible, yet very concrete matter that holds together all the elements of a dance performance – direction, choreography, music, dancers, set, costume, lighting, visual and narrative elements or the abstract idea behind the creative impulse. The dramaturg must construct the story (narrative or otherwise) based on literary or other masterpieces, but it must work for the stage; it must set the vision, the pace, to create an enjoyable experience for the audience, especially in dance theater, which does not use words. A performance created for an autism-friendly theater must communicate vividly with the audience and still “breathe”. The dramaturgy starts with an idea, a dialogue, a research process that may involve fact-checking, and a deep search for questions and functional solutions, sometimes some provocation to create the right pace and add the final “touch”

at the end. To come full circle, the dramaturgy is a kind of initiator of the process, hovering over the choreography and the dancers and staying in tune with all the details that make up the final production. The advantage of the choreographer, dramaturg and composer working together is the possibility to break away from the subject and look at it from other angles. Fluent, elaborated communication between characters and fine balance are particularly important. Connection is the ultimate quality we look for, specifically, connection between audience and performers, but also connection within the microcosm of the project itself. Having worked as a choreographer and dramaturg for a long time, I have found that my dramaturgical work is responsible for creating a certain system that guides and supports the choreography, the musical concepts and the direction, controlling the timing and creating a special atmosphere by paying precise attention to every single detail and finally to the way of presentation.

Almost every theater project is inspired by life or by something that bears resemblance to our personal experiences. We tend to mirror our inner worlds and intentions to the outside world, which can be especially visible on the grand stage. It is almost impossible to navigate through a story without the elements of surprise, but at the same time I think that when surprise is introduced as a new catalyst of a narrative, the right balance and harmony between contrasting (light and shadow) moments is absolutely essential. In this particular case, no shocks, no misplaced provocation and no sudden changes are justified just to create an effect. We should let the story speak gently and naturally without unnecessary tricks. The best performances never need sensory overload, because they simply move the audience from within, with their essence, and the audience feels it! Music and lighting are particularly of great importance and value here.

We can protect our audience with a wide range of possibilities, by synchronizing the music score with the choreography and lighting, by making appropriate dramaturgical choices so that the audience feels safe and emotionally fulfilled without stress. Just like in life, finding the right balance is one of the most important qualities for a successful project.

7.3. Dramaturgy design principles in inclusive theater

Following the philosophy of improved awareness of ourselves and others, inclusive theater, indeed, challenges “normality” and “normativity” as a universal and often an arbitrary criterion for artistic expression by creating a better, “inclusive” alternative where everyone can participate in and enjoy a theater performance or, as in our case, a dance theater performance.

The first, and at the same time, most structured paradigm would be storytelling through movement or creating narratives through dance. In order to fulfill the desired requirements of inclusion theater, the creators or, as in this case, the choreographer should pay close attention to the following aspects of the show: First, the plot (or narrative premise) should be very straightforward, precise and with a final outcome. The characters should reflect the typical (or classic fairy tale) dichotomy of good and evil. Furthermore, their essence should be in complete harmony with the clarity and motives of their actions. Particular attention should be paid to the justification and resolution of conflict situations, which can usually be portrayed or shown – especially in “classical” or “standard” performances – through acts of violence, dramatic facial expressions and sudden changes in movement, lighting and other stage effects. However, in this particular case, if a scene depicting violence or a dramatic effect is necessary for the development of the story, it should be played at a much slower tempo. Delicate, yet still straight-forward should be the approach. Also, the music should not be too loud or consist of too many dramatic volume fluctuations, sharp harmonic contrasts or melodies in extremely high and low registers. Set design, light and costumes

are minimalistically serving the story. Colors are of a great importance as well.

The second paradigm that allows the co-creators of the performance a freer exploration of movement and its expression is the principle of visual and sensual poetry. In this kind of performance we are searching for our inner soul, our true substance, true intentions, our feelings. The main focus is to find the most appropriate expression in movement for what we feel, as we become the embodiment of an emotion. The exploration of movement is semi-structured so that each participant can give a unique, emotionally charged response to a proposed question or situation in the “action”. The “plot” is not fixed, but a fluid and immersive, ever-changing substance that opens the way for delicate interactions between the dancers and the audience. The music used for this particular type of performance should have a repetitive structure and dreamlike melodic qualities, as it must create an atmosphere in which everyone feels equal, safe and accepted. It can lead us to a mutual “therapy” experience. I suggest costume-non-costume, pale colors, simple cuts and “invisible” set, to create an open room for everything and “nothingness”, by keeping it a simple, yet profound and honest dance theater medium of divine beauty.

The third and final design principle of inclusive dance theater, which aims to create a holistic and transcending experience, seems to present the greatest challenge and effort both in terms of technical staging (which includes the use of video, music, lighting, set design, costume and props) and in terms of the individual engagement of each dancer and the response of the audience. The methodology for this kind of performance consists of a creation of a new kind of holistic dance narrative. Such a performance is no longer a semi-structured exploration of movement or a particular atmosphere, but rather a state of body and mind with seductive and immersive qualities involving a consummate theatrical aesthetic, the attribution of new and profound meanings to the symbols used, perfectly timed surprises and twists within the plot, and an overall finesse of movement.



Higher realms should be explored here. Open spaces. New codes. Such a performance has a high transformative power as it opens a portal of potent psychological energies and creates the conditions for a unique theatrical experience that can become relevant and applicable to the lives of both the audience and the performers. It can intrigue us and surprise us. Music can take us beyond expected.

7.4. The role of dramaturgy in the fine-tuning of the rhythm of the performance

A condensed narrative must have a solid foundation, polished relations, clarity in the characterization of gestures, calm but decisive facial expressions, exposure of the movements embodying the characters, and dance combinations used for each role and each dancer in particular, especially if the story is one of the great classics or inspired by cinematic imagery. It is very confusing when all the dancers move in the same way all the time. We also have to pay close attention to nuances in costumes, props and set design. If we

are creating a narrative that was originally created through the author's vision and has nothing to do with literature, or if we are inspired by other sources that give the creators broader expressive possibilities, then the dramaturgy in this case can remain more fluid, but with an awareness of structure in terms of timing, setting, atmosphere, sensual, visual and emotional body language, and through the finesses to the final destination. Creating shorter performances (in terms of duration) may seem easier at first glance than full-length shows, but is in fact the exact opposite. The dramaturgy has to distinguish between the essential and the superfluous. The main task in any downsizing of the original performance should be to find the thread of the narrative by asking what events and people on stage are absolutely necessary to reflect the story or the main idea of the narrative. The feeling and timing of the first part and of the whole project are very important. If the first part was impressive, we need to stay in touch with that feeling – not in the sense of its intensity, which might be too



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exhausting for the audience, but rather as a prelude for a sequel. To achieve this, various sound motifs from the performance could be played during the interval. For example, if the character is crying at the end of the first act, we could hear the sound of rain during the intermission to reinforce the sensory connection. Or if the action takes place outdoors, we can keep some nature sounds, birds, light string melodies, themes used in the first part – just to give the audience a hint or a vague idea of what will happen next, which might increase their anticipation and curiosity before the show starts again.

Theater production around the world is more diverse today than ever before, and there are different approaches we can take to address the specifics of a performance that might be misunderstood even by general audiences, let alone visitors on the autism spectrum.

When trying to test the understanding of events or narratives on stage - before the show, in between the break or after, we should always maintain the playful

aspect of the performance, as if it is a place that everyone enjoys participating in. The introduction of characters who can act as eventual actors aside can be of particular benefit.

When we talk about the content or the intention of the artist that is somehow encoded in the performance, we should always use very clear language. We should always try to see the whole picture, although it is very important to highlight the specific, especially subversive, to avoid further confusion and misinterpretation. Even in abstract dance theater projects, each audience member can find a specific meaning that is relevant to themselves, — a process of individual attribution of meaning. Nevertheless, the initial perception of the show by the audience should be optimized through the use of multimodal means of expression – text, images, music, professionals who are there during the break - for individuals on the autism spectrum.

7.5. Building up of the characters and their relationships

The main tool that contributes to a better understanding of the story and the characters is a clear delineation in the narrative, precision in communication, simplicity, exquisiteness and dichotomous dramaturgical choices. All the characters' actions should be justified and build the atmosphere at a slow pace. The dramaturg should always look for versatile, authentic and meaningful solutions that can be well adapted to the different means of expression in the theater. For example, if musical phrases repeat, body movements can repeat accordingly. In this way, the different media, when brought together, can strongly emphasize the basic line of the narrative. It is important to avoid a blurred and vague dramaturgy of the narrative, especially when the choreography is driven by other realities and the fusion of ideas that may be contradictory in nature. In this case, the dramaturgy should remain vertical, comprehensible, understandable and anchored in reality. For example, the main character may keep coming back to write something on the floor. At that moment, a new chapter or scene begins and something changes. Although the specific functions of each character can be redistributed and reinterpreted by the choreographer, each role should be shaped in a psychological sense according to its specific signature, like movement and visual representation on stage. For example, the four characters from the ballet, Romeo and Juliet – Romeo, Mercutio, Tybalt and Paris – embody four completely different men whose personalities are characterized by a recognizable body language (steps, figure, costume, colors, props, etc.). Since Prokofiev's score uses different combinations of instruments for these characters, we should always consider different aspects of the narrative and which solution is best for our project, down to the smallest detail. We should pay special attention to facial expressions and avoid the use of irony and subversive meanings. In my experience of 142 ballet, opera and theater premieres, I often see the confusion created

by costumes and non-realistic gestures of the protagonists, which can in some ways lead to a false impression of what is happening on stage. Inadequate and unattractive costumes can also lead to unnecessary confusion and even disinterest on the part of the audience. In a narrative dance performance (or a dance narrative), the colors and materials of the costumes should be perfectly matched and always correspond to the dramaturgy of the character and/or plot in question, even if we are staging a well-known masterpiece (based on literary sources, films or other media).

Essentially, all relevant information intended for the audience should be presented in a carefully curated brochure that highlights all the important aspects of the performance, its narrative (summarizing the events on stage), its imminent aesthetics (colors, costumes, set and props) and the featured artists and ideas that might be relevant beyond the scope of the project.

7.6. Use of symbols and metaphors

Individuals on the autism spectrum often have difficulties with abstract and conceptual thinking. When abstract concepts are used in a dance performance, it could be helpful to provide proper visual cues. I would say that the primal instinct of both artists and audiences is to find a connection that can optimize the flow of communication in both directions. The ideas of beautiful, ugly, good, evil and other ideas that were once considered universal, giving way to a dichotomous system of symbols, metaphors and their respective values, are now seen as culturally embedded and can differ from person to person. Personally, I find it quite interesting when I hear different people's comments from the audience about a particular performance. In my experience, it is quite rare that two different people have exactly the same opinion or perception of the performance. Therefore, it is important to check at least once in a while – this means inviting people on the autism spectrum to the dress rehearsal or even to rehearsals early in the production – whether the audience understands the different constellations of meaning you are trying to

convey. The so-called hidden layers, or other situations that allow for more than one interpretation should be highlighted – to avoid audience confusion – so that they appear as a “subtle” element of surprise.

7.7. Patterns and proportions

Our personal perception of visual symmetry, harmony and balance is at play when we create a new work, so we should let this guide us as much as possible and “fine tune” at the end of the creative process. The artist’s use of patterns, motifs and themes that appear similar or even identical can be understood as repetitions that can build an atmosphere or construct a certain emotion. The golden ratio – or at least its approximation – which can often be observed in Renaissance works of art by Michelangelo or in musical works by Bach and Mozart, is just an abstraction that can help us construct the dramaturgical sequence that is closely linked to an exact duration. Sometimes I use it in my works to get the right musical and dramaturgical rhythm of the scene. In modern and contemporary art, however, artists usually work freely and spontaneously and do not pay particular attention to meeting the exact requirements of the golden section. There are many examples of carefully arranged and well-balanced artworks – including choreographed narrative dances – that lend themselves remarkably well to the golden ratio.

7.8. Emotional accessibility

The development of technology has led to many applications of effects that can be potentially harmful because of their suddenness or overwhelming nature. This should be considered when designing a performance for a particular audience – not only people on the spectrum, but also infants and young children. The use of strong lighting, strobe lights and extremely loud music and sounds is therefore discouraged. However, if we include a strong scene that might provoke strong reactions from the audience, we can “tone down” the intensity of the conflict by slowing down the pace as if time has stopped for a while. Another effective way to

achieve this is to create meaningful moments by subtly reshaping the otherwise too intense situation. Examples of this can also be found in classical theater in cases of allegorical representations known as “scene within a scene”. In such representations, the conflict or its intensity is downplayed, but the unpleasant message is still conveyed to the audience. In order to avoid exhaustion, panic or deep aversion in the audience, we should limit any particularly compelling and emotionally engaging scenes to a short time frame. A strong cathartic moment should always be followed by a calm and gentle scene that could build on an ostinato musical theme or provide a highly aestheticised visual landscape. Through the diversity of movement and the art of dance, which for me is a medium of divine beauty, we can reach the audience at the highest level of consciousness, which can transcend the realm of the spoken.

7.9. Summary

I think the most important thing for an artist (and also for a human being) is to be genuine and to use their intuition, empathy and whole unique personality. Radiant people who possess theatrical sensibility to the depths and the unknown of the mind, can unlock the challenge and the magic of the true theater. Refining the theater, finding meaning in minimalism and functionality by thinking up immaculate solutions to complex ideas. Only the creative team that is gentle and attentive to their audience, that uses all these delicate connections and multi-level communication with each other is able to discover and communicate new ways of thinking and perceiving that can lead to new art of high quality. It requires deep dedication, vulnerability and selflessness to make an honest and genuine project. Even though the project is very challenging, together it can put us on a new path to experience life as a complex phenomenon and create new and unique theater experiences. Life as an inexhaustible source of inspiration for art can lead us through this new portal to create a new sense of theater that anticipates subtlety, deeper meaning, uniqueness and a new essence.

8. THE CHOREOGRAPHY: REFLECTIONS

by **Andreas Heise**, choreographer & stage Director

8.1. Introduction

Being part of the research team for the Takiwatanga – Autism Friendly Dance Performance project was an enriching experience, both as a choreographer and as a person. Following already existing structures and guidelines for autism-friendly theater performances, we did not primarily focus on creating the environment for an audience with ASD, but rather on examining the artistic product, in our case the choreography, itself. We found through our research that movement has been successfully developed and used as a therapy method and that guidelines for autism-friendly performances have been established to create a safe space for audiences with ASD, for example. However, little attention has been paid to choreography as an artistic product designed with an autism-friendly awareness and approach. What could a choreography look like with this awareness? What is to be considered? During an on-site workshop and through a recording of a performance of, A Midsummer Night's Dream, with the Hungarian National Ballet, we explored different types of choreography. In our choreographies created especially for the event, we considered three dramaturgical approaches that we named: poetic, narrative and abstract. In addition, we selected various characters from the classical ballet repertoire to learn what can be understood by this special way of telling a story through pantomime and movement. These choreographies were then presented to an audience of two participants living with ASD. Through questions, their feedback and their suggestions, we learned a lot about what could be considered in the art of choreography to make it more autism-friendly.

8.2. Findings

I will focus primarily on perspective and approach when creating a choreography, highlighting my insights and making suggestions for other choreographers who are also interested in creating autism-friendly choreography. My insights are purely artistic, not scientific or neuroscientific.

8.2.1. Multiple Layers

We discussed several ballet experiences with our neurodiverse consultants and some of the results were very interesting from the choreographer's point of view. Our observation was that scenes with many dancers on stage and complex choreography can be very difficult to follow. While it can be difficult to focus on what's happening on stage, less structured choreography limits the audience's full concentration and understanding. From a purely choreographic point of view, I would suggest structuring scenes with larger casts of dancers very clearly and pay attention to the formations and arrangement of the dancers in the space. Also, I realized that the narration should focus on a single story rather than telling multiple storylines at once. In this way, an audience with ASD can follow the story and the groups with more ease and calm. In summary, whether within the narrative or purely movement-based, it is recommended that choreographers make clear decisions about what is essential in scenes with larger casts. Choreographic and scenic clarity allow an audience with ASD to draw attention to what is happening on stage without causing anxiety and restlessness. This is where costumes and their colors and shapes could play an important role in following and understanding the scene.

8.2.2. Time

Regarding the concept of time, I have made a twofold discovery with the help of our neurodiverse consultants. First, the different pace of movement affects our audience greatly in terms of emotional comfort. While slower movements created more ease and comfort, faster movements didn't create discomfort just because they were performed at a faster pace. However, the duration of both qualities seemed to matter. For a slow segment, a suggested length of time by one of our viewers was five to seven minutes. For a faster section, however, a minute seemed sufficient to view it in a calm state. However, emotions, which I will discuss in the next point, play a greater role in the context of time. When thinking

of the aspect of time within a choreography it can, therefore, be suggested to measure the duration of different speed qualities carefully in order to create a harmonic balance for audience members with ASD.

8.2.3. Emotions

In exploring different emotions within the choreography, we experimented with segments of movement I had created within our dramaturgical outline of poetic, narrative and abstract, as well as the characters from the classical ballet repertoire that showed that the specific type of emotion represented has a significant effect on an audience with ASD. Emotions conveyed through movement and body language helped our audience understand the characters and their state of mind. However, there were different reactions to different emotions. We received positive and reassuring feedback on movement segments that represented caring, love, and compassion. However, emotions such as anger, rage and melancholy didn't cause any negative reactions from our audience either. Only when the emotional landscape represented fear and anxiety did it have an unsettling effect on our viewers. While it has been confirmed that it is not necessary to cut out negatively connoted emotions from a creative idea of choreography or staging, it is again advisable to pay close attention to the dosage, length and execution of such strong emotions when creating movements. Another recommendation, besides limiting distressing emotions to a tolerable level (maybe 1-2 minutes), would be to offer emotional resolutions in the narrative or in the abstract that allow the audience to calm down and find emotional ease.

8.2.4. Meaning

It was very interesting to explore how the presentation of characters from the classical ballet repertoire was understood by our audience. All choreographic excerpts from ballets such as, Swan Lake, Giselle, Sleeping Beauty, Le Corsaire " and Onegin were presented without music, costumes and without any facial expressions. We wanted to present the pure

movement and pantomime to understand how it would translate to our audience. Our neurodiverse consultants understood each character's key characteristics, their mood, and in some examples even their age and social status, without providing any further information or knowing the pieces. It was a big surprise for me personally, because one always believes that such old pantomimes and approaches to movement no longer have anything to do with our times. But in fact they still speak to us and are a clear portrait of humanity. My recommendation is not to resort to classical ballet vocabulary and pantomime, but to understand what works and why. It could boil down to the simplicity of body language and posture, as well as the rhythm, volume, and intent of the movement. These results also made it clear that specific narratives support the understanding and attention of an audience with ASD.

8.2.5. Repetition

An important element that emerged throughout our project process is repetition. In terms of both movement segments and patterns, and narration, our viewers noted that repetition helps to follow the choreography, understand it better, and feel confident during the presentation. Therefore, creating choreographies with repetition or recurring themes and movements, movement sequences can be, therefore, recommended in order to provide safety and clarity to an audience with ASD. Overall, when it comes to character building and acting, repetition and recognition value are essential elements in building authentic and true personalities on stage.

8.2.6. Character building

With regard to choreographically building a character with awareness for autism-friendly dance performances, it is recommended to be as specific as possible when choosing character traits. Once again, within each character's emotional realm, it's important to balance the emotions themselves, so that they don't overwhelm an audience with ASD. Furthermore, it is recommended to focus more on physical rather than facial expressions to express emotions. The clearer hand and arm gestures, body movements, and postures are performed, the more ease it creates for an audience with ASD. Tempo, dynamic changes and climaxes could be built in such a way that there are no sudden surprises. A clear and consistent structure toward emotional and physical climaxes can help instill comfort and confidence in an audience with ASD.



9. PERFORMING ON STAGE WITH AUTISM AWARENESS

by István Simon dance artist

I believe dancers have to work somewhat differently when preparing for an autism-friendly performance. The main objective of the different approach is that there is an elevated responsibility in delivering accuracy and clarity in terms of artistic expression, movement dynamics, body language, and proxemics.

Historical knowledge of dance, body awareness, and the knowledge of the basic theatrical rules have an accentuated importance that can help this different approach.

Body awareness is the way in how we connect to our own body and the way in how we perceive someone else's body. It defines how much information we allow ourselves to process of all that we perceive, feel, and recognize.

Dancers have the possibility to make certain choices to raise body awareness and body self-awareness. When we feel something, we can increase our inter-observational processes and better explore and understand them, how it might appear from the outside, and what it communicates about us to others. The simplest way to improve such a skill is by using photo or video recording tools to record movement and expression and self-check how emotions, expressions, and movements can be perceived from outside. Next, one should try to narrow the range of possible interpretations by seeking clarity and align the feeling and intention with how we wish to be perceived. Another option to fine-tune emotional expressions may be when working and being in dialog

with dance experts, dance teachers, choreographers, and colleagues in a dance studio. In both versions, individuals have the possibility to create and constantly develop an inner database that can reduce the gap between how we imagine we look when we express ourselves in certain ways, versus how we really look to an outside viewer. The more time and care dancers invest in the development of such a "database", the more clarity and accuracy they will be able to bring to the creative process and performance of an autism-friendly dance performance.

During our onsite testing workshops, we learned from our autism spectrum consultants that they felt more comfortable when they were observing carefully crafted choreographies regardless if they were classical, postmodern, or contemporary, as opposed to improvisation, even if it was well structured and conceptualized. We also learned that beyond the well-structured choreography and the well-crafted emotional landscape of the dancers' artistic interpretations, the clearest understanding was enabled when the dancers' artistic individuality and personal self-expression came across above all else.

The dancers' artistic autonomy does not only have its place in an autism-friendly dance performance – it is fundamental. Its essential presence in an autism-friendly setting is the absolute purpose of the Takiwatanga project. It is the way in which our team aims to create the access, way, and connection to inclusivity. We believe that the thrill and adventure that comes with experiencing this wonderful art form should be allowed to impact as many people of diverse backgrounds as possible.

Theater environments in our times often promote the extreme psychological and emotional experiences of performing artists and discourage emotional self-regulation. However, in an autism-friendly environment the opposite constellation is beneficial: a controlled emotional landscape helps to avoid emotional overload or psychological confusion that can become unbearable. For a dancer, switching from one set

of values to the other can be challenging, but it is not impossible. It requires strong self-reflection and deep knowledge about oneself, as well as enhanced autonomy in their personal and professional lives. If the dancer is self-aware and is able to recognize their strengths and capabilities, understands their triggers and how to avoid and handle them, and can deal well with stagefright, they are more likely to deliver clear and accurate interpretations with expressive, yet carefully, fine-tuned emotions that do not seek extremity, but rather meaningful and understandable artistic expression.

Some of the dancers' artistic tools that are possible and beneficial to fine-tune for an autism-friendly dance performance include: facial expressions, gestures, posture, expression through hands and feet, whole body expression, timing, movement dynamics, musicality, precise direction of movement in space, clear shapes, and angles, spacing, floor patterns and proxemics on stage, taking in consideration the particularities of a specific stage as well as their relation to others.

One tool that I would particularly highlight is the composition of emotions within the framework of a choreography. By being highly aware and present in the moment throughout a performance, the performing artists have the possibility to not only fine-tune their emotional self-expression, but navigate through the whole show with such a high level of involvement, thus creating an emotional sculpture in real time. This elevates the chances of our audience members to embark on a journey that is created through the encounter of the audience and performing artists which may lead to a very special life experience – a theatrical catharsis.

I believe these tools are always important when we talk about the performing arts. However, when it comes to autism-friendly dance performances, the responsibility of the performing artists to include their own artistry is greater because only through clarity, precision, and expressiveness can we reach the hearts of the widest



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possible audience. As opposed to the neurotypical audiences who through their empathy, and capability of emotional prediction in some cases can overbridge inconsistencies of a performance artistic interpretation, autistic audience members might not be able to easily overcome inaccuracy and inconsistency of the same nature.

I would encourage the dance community to choose to be more aware of actions, meanings, and emotions, and understand the history and the deeper meaning and intentions behind certain movements. The more the dancers know about the profession and about themselves, the more established artists can become. An established artist can better communicate, express empathy and care while performing. These are not only some of the most important values of humanity, but they contribute greatly to the confidence in undertaking the responsibility to deliver the best possible version of their artistry.

10. SOUND AND MUSIC

by Kian Jazdi

10.1. Introduction

Given the depth and complexity of autism as a spectrum, it becomes clear that there is no perfect musical solution to cover the diverse needs and individual preferences of every person with autism. There may be audience members who react particularly sensitive to visual stimuli, and in the next performance, the audience reacts much more strongly to acoustic stimuli. We want to remain sensitive to the sensory needs of individuals on the autism spectrum. However, at the same time, we want to design the music selection process in such a way that the results remain artistically accessible and appealing for everyone in the audience.

Sound and music can play a crucial role in creating an autism-friendly dance performance, as individuals on the autism spectrum can be sensitive to certain types of sound and music. Referring to our studio testing, I was able to present initial guidelines that seem to contribute from a music and sound perspective to an autistic-friendly performance.

In the following units, I share some hands-on tips for creating a sensory-friendly sound and music environment for an autism-friendly dance performance

10.2. Volume

Overly loud music or sound can cause sensory overstimulation for individuals on the autism spectrum. It is important to keep the volume at a level that is comfortable and not overwhelming. The specific volume level that is considered “reduced” will vary depending on the individual and the setting, but as a general guideline, it is recommended to keep the volume at a level that is comfortable and not overly loud. In terms of decibels (dB), the recommended maximum exposure level for safe listening is 85 dB for eight hours, according to the

National Institute for Occupational Safety and Health (NIOSH). In a performance setting, it is important to keep the volume at a level that does not exceed this recommended limit and is comfortable for the majority of the audience. The decibel range in a rock concert reaches from 120 - 130 dB. Depending on how close you sit and from which epoch the played music comes from, one has to be aware that a classical symphony orchestra reaches the same amount of loudness. One doesn't have to omit every loud section of a certain composition, but rather be aware that it shouldn't stay too loud for too long, and that the volume level is faded in over an extended period of time to give the ear the opportunity to adjust. As “compensation” it is important to include enough calm parts to give the audience the opportunity to re-regulate. Providing quiet moments in the performance can help reduce sensory overstimulation and allow individuals to take a break if needed.

In certain situations, a radical approach is appropriate in any autism-friendly dance performance to include scenes which are performed without any musical support. This gives people who are particularly sensitive to acoustic stimuli the opportunity to relax. Predictability also plays a central role, which means for a “silent scene” the audience should know how long the performance will remain free of acoustic stimuli. So it is conceivable to project a clearly visible timer with the projector and let it run or something similar in order to provide that predictability.

10.3. Predictability

If the musical emotions/style of music/instrumentation changes, it needs to be foreseeable. In the composition process, one needs to put much effort in the designing of musical/emotional transitions. After the studio testing and a detailed exchange with our neurodiverse consultants, almost everything seems possible from the musical side, as long as it is sufficiently prepared. In my opinion, it makes sense to make the music played available to the audience with sufficient lead time before going to the theater. This means that if a composition is commissioned, an - otherwise unusual - pre-publication should be sought. This

gives the audience the opportunity to learn the music in a protected atmosphere and at their own pace. Furthermore, if a composition is commissioned, the music should also be tested on a test audience with sufficient lead time, so that adjustments can be made directly.

10.3.1. Avoid sudden changes: sudden changes in sound or music can cause sensory overstimulation.

- no sudden disruptions/surprise, like a percussion bang in a pp section
- in general long climaxes when the music needs to become loud
- introduce new musical material with rather reduced instrumentation than a full orchestra

10.3.2. Consider rhythm: Autistic individuals may be sensitive to certain rhythms or beats. Incorporating predictable rhythms can help reduce anxiety and increase understanding.

10.3.3. Incorporate familiar sounds: Incorporating familiar sounds, such as nature sounds or recognizable melodies, can help provide a sense of comfort and familiarity.

10.3.4. Provide clear music cues: Clear music cues can help individuals on the autism spectrum understand the rhythm and structure of the music. This can be especially helpful for those who struggle with rhythm or musical timing.

10.4. Offer headphones

For individuals who are particularly sensitive to sound, offering headphones with noise-canceling technology can help reduce sensory overstimulation. Pictograms or visual cues that show up during the performance anytime it's necessary (i.e. if there is a loud or percussion based section ahead) may be helpful. This can also be included to raise awareness when headphones may be necessary.

10.5. The music should support the storyline

Many individuals on the autism spectrum have difficulty reading social cues, such as gestures, nuanced exchanges between dancers, etc. This is where music can support the storyline to aid in the understanding of the narrative. For example, there are so many movements/interactions between two dancers that make one understand that they're attracted to each other. If the "attraction between two people" would be linked to a short musical motif that can be varied a lot, it could support the story telling. One could try to link motifs/easy recognizable harmonic changes with the dramaturgy of the piece. In general it seems that everything predictable in a composition makes the listening more comfortable for people on the spectrum. Predictability can be seen as a general guideline to all sound issues. Obviously, that lends itself to the idea that the unforeseeable in music is what makes it interesting. However, if one wants to compose for a particular performance with the aim to be inclusive, one needs to overcome this specific idea and find new ways to approach a performance.

10.6. Acoustic sensory overload in and around the theater hall

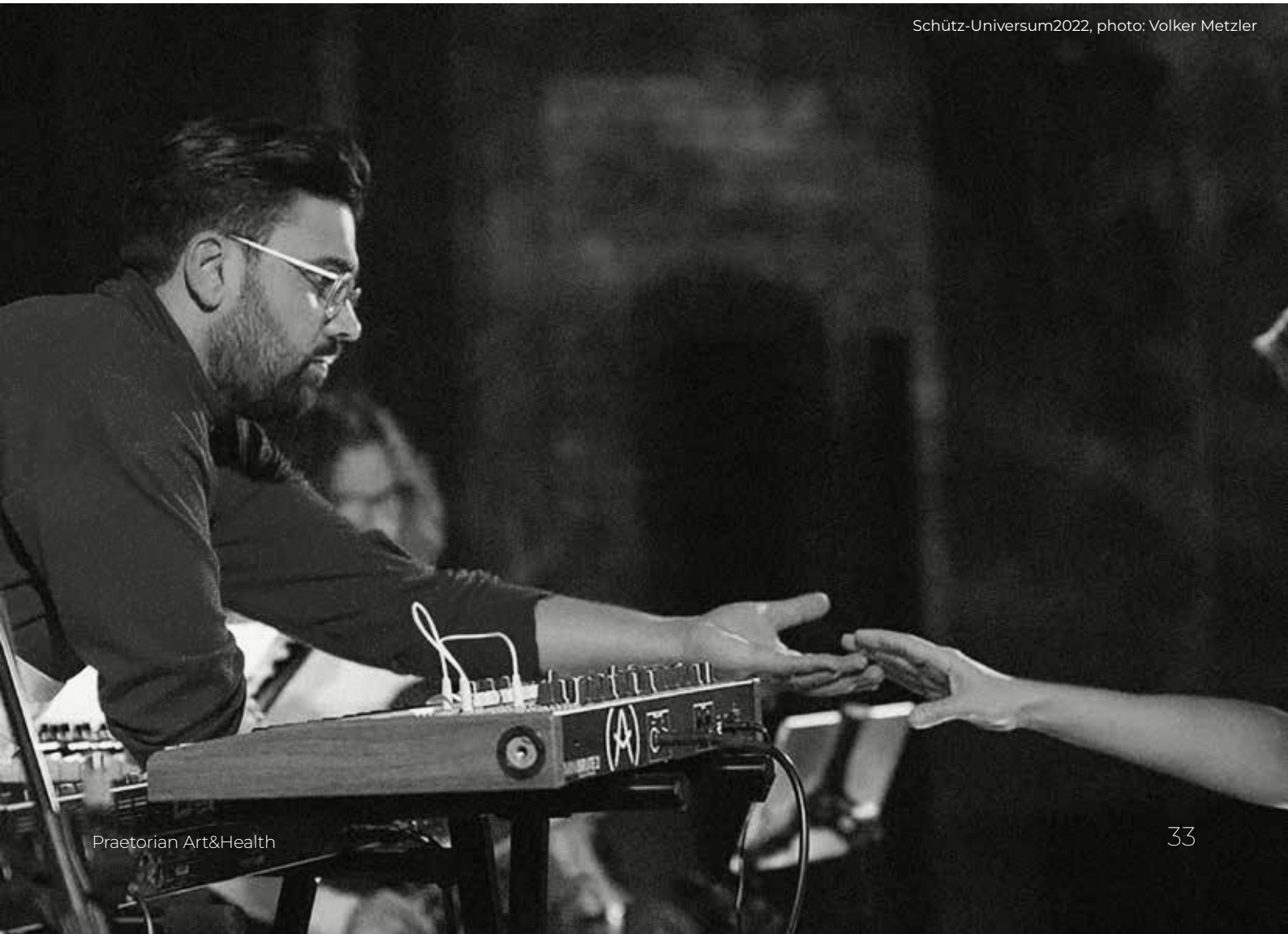
- When dealing with musical solutions to avoid acoustic sensory overload during a performance, classic guidelines for a relaxed performance should be considered. This means that in addition to the theater hall, the entrance area, the cloakrooms and the catering area must also be considered in the preparation.
- Theaters are often tall buildings with long reverberation times in the foyer areas. Is it conceivable, for example, to hang curtains on large, smooth, highly reflective stone surfaces in order to avoid long reverberation times in the common rooms?
- Are there enough signs to keep quiet and lower your voice?
- Has the front building staff been comprehensively briefed?

- Is lighting that emits a strong acoustic signal (e.g. the whirring of an old fluorescent tube) switched off or covered with appropriate, available sound absorbers?
- Are the first, second and third signals that indicate the beginning of the performance replaced by, for example, people walking around with signs?
- This is just a selection of possible questions that arise in the context of an autism-friendly performance. They are intended to draw attention to an “acoustic theme complex” outside of what is happening on stage. The catalog can of course be expanded individually and adapted to the respective house.

10.7. Children

Children are children, whether with or without autism. Accordingly, the reaction of a child with autism may respond significantly stronger than that of an adult with autism, who may have already learned self-regulation strategies to not enjoy certain overstimulations at all, and to certainly feel them as stressful, but nevertheless to be able to endure them. So, I assume that emotions, as with every child, are expressed and formulated much more directly than with adults. This implies in all fields of a children's performance that an even higher degree of sensitivity is fundamental.

Schütz-Universum2022, photo: Volker Metzler



11. LIGHTS ON STAGE AND IN THE BUILDING

by Johannes Schadl

11.1. Introduction

To design a pleasant light design for an autism-friendly dance performance, it is important to simplify it to make the dance and its associated content clear and understandable.

People on the autism spectrum can be very sensitive to light, colors, and patterns (e.g., discomfort, headaches, fatigue, overstimulation, or epilepsy), and our job as lighting designers is to not overly stimulate these possible reactions. The goal is to merge with the choreography, dramaturgy, music and create the light atmosphere in such a way that it positively and understandably supports the narrative or abstraction. This does not mean that we should not experiment, but we should approach the conception of light in an autism-friendly dance performance with a certain sensitivity.

Ideally, the created light atmospheres should have an

obvious reason - whether it is to illuminate a real scene, represent an abstract scene (dream world), or use light as a character-related mood to make it easier for the viewer to follow the narrative and content.

It is about supporting the dance and the associated emotion or narrative as simply as possible. We are still at the beginning of figuring out what lighting concept is right for an autism-friendly dance performance, and with this guideline, we are trying to make a start with certain suggestions and assistance.

11.2. Entrance and Foyer

The entrance area and foyer should be pleasantly illuminated, not too bright, but also not too dark. Ideally, the lighting should be slightly dimmer than usual to create a calm, friendly, and safe environment. Uniform and diffused lighting can help prevent the entrance area from being too bright or too dark. Overly bright lighting can be overstimulating, while too weak lighting can lead to orientation problems. Avoid using bright and flashing lights, as they can be unpleasant or disruptive.

Colors can play an important role. A calm and relaxed atmosphere can be achieved by using soft and naturally-muted colors such as greens, blues, and oranges.



Fig.1. Example of entrance situation and



Fig.2. The dimmed auditorium at the beginning and during the performance.

11.3. Auditorium

Before the performance starts, the auditorium lighting should have a similar quality to the entrance area. Every row and seat should be well visible so that everyone can find their place.

When the performance begins, keep the house lights dimmed at a lower level to allow a safe and free movement.

By keeping the lights up, you make the theater safer for the audience while coming and going, and you also alleviate some of the potential fear of the performance. This can also help decrease overstimulation for some audience members.

11.4. Stage Lighting

To design a pleasant lighting setup for an autism-friendly performance, I would try to conceal each light source from the audience's perspective using stage curtains or baffles as much as possible.

Hypersensitive individuals may perceive strong light sources that are in their line of sight or even in their peripheral vision as uncomfortable, disruptive, and dazzling. We try to avoid this.

Of course, stage design elements, decorations, and props that are intended to be visible as light sources are excluded from this. However, they should not be too bright or blind the audience.

11.5. Lighting fixtures

11.5.1. Considerations about overstimulating lights
In general, it is recommended to avoid any flickering, fluorescent, stroboscopic, buzzing, or dazzling lights on stage for an autism-friendly performance. Visually perceived flickering or stroboscopic effects can cause discomfort, headaches, eye strain, fatigue, or even epileptic seizures among the audience.

In very quiet performances, the noise generated by the stage lights in the auditorium can also be an important issue. Hypersensitive individuals on the autism spectrum may find loud, buzzing, or crackling lights or dimmers very uncomfortable and should be avoided if possible. Therefore, any high-quality stage light that does not possess the negative characteristics mentioned above would be suitable for a sensory-friendly performance.

11.5.2. Light flicker

Light flicker means the perception of fluctuations in the brightness of light for an observer in a static environment. Example: Flickering lamp. This form of light modulation is mainly due to the fact that light sources are powered by alternating current, not direct current. When the current changes its strength, as is the case with alternating current at a frequency of 50 Hz, the brightness changes 100 times per second (= flicker frequency of 100 Hz). This is also the case with



Fig.3. The lighting setup is shown without stage curtains or baffles and



Fig.4. Setup with stage curtains and baffles.

incandescent bulbs. However, the filament reacts so slowly to cooling and heating that no flicker is perceived.

Fluorescent lamps and LEDs, on the other hand, respond quickly to fluctuations in current or voltage. To avoid flickering in LEDs, the light source must continue to be supplied with constant current for a short period of time, even if the input voltage drops. Whether this is successful depends on the quality of the ballast and is ultimately a quality issue.

Even without visible perception, flicker can be detected by the eye in sensitive individuals up to frequencies of about 400 Hz and can have direct physiological effects. Flicker can also occur when dimming LEDs. The relatively inexpensive pulse width modulation (PWM) method is often used to regulate brightness. In this method, the brightness of the LED is changed by quickly turning it on and off. The faster this happens; the less likely flicker is perceived. The PWM frequency for high-quality LED lights should be over 400 Hz, which ensures that the aforementioned negative physiological effects are avoided.

Flickering and stroboscopic effects can be avoided when operating discharge lamps by using electronic ballasts (EB) with significantly higher frequencies.

11.5.3. Types of LED dimming:

a. PWM dimming (Pulse width modulation) - Switching LED on/off fixed frequency.

Pro: Good dimming regulations at low level

Con: Potential noise generation

Potentially undesirable flicker, depending on frequency

b. CCR dimming (constant current reduction) - Varying LED current, LED always on

Pro: No Flicker

● No Noise generation

● Higher LED efficacy at lower dimming levels

Con: Poor dimming regulation at deep dimming (low current) levels

c. Hybrid Hydra Drive dimming („improved“ modulation) - LED are not switched off (amplitude change), modulation in variable frequency, less

current when possible

Pro: Best dimming regulations at deep dimming levels

● High duty cycle frequency

● No flicker

● Dimming all the way to 0,1%

● Increasing LED efficacy at dimming

● Low noise generation

11.5.4. Testing flickering lamps

There are several ways to test if a lamp is flickering:

1. way to check if a lamp is flickering is to look at it with the naked eye. If you perceive a flickering light, it may indicate a flickering lamp.
2. Another way is to use a camera or smartphone display to film the light from a lamp. When playing back the video in slow motion, you may be able to detect flickering that is not visible to the naked eye.
3. There are also special apps that can measure the flicker of lamps. You can simply download the app onto your smartphone, film the lamp with the phone screen, and the app will analyze the video for flicker.
4. There are also specialized flicker testing devices that can measure the flicker of lamps. These devices are usually only used by professionals.

Sources: <https://www.trilux.com/de/beleuchtungspraxis/innenraumbeleuchtung/lichttechnische-kriterien-der-beleuchtung/flimmern-und-stroboskopische-effekte/>
<https://www.bfs.de/DE/themen/opt/sichtbares-licht/wirkung/lichtflimmern-tla/lichtflimmern-tla.html>
https://www.ndti.org.uk/assets/files/Sensory-friendly-LED-lighting-for-healthcare-environments_Final.pdf

11.6. Brightness and contrast

For an autism-friendly dance performance, it is important to adjust the brightness and contrast of the lighting to be comfortable for the audience and not become overstimulating. Avoid bright lights and overstimulating contrasts such as very bright and very dark areas or strong color contrasts. A balanced contrast can be more pleasant for people on the autism spectrum than a too high contrast.

One possible approach would be to use the brightness

of the dimmed audience area during the performance as a reference to define the stage brightness. For example, if the audience area has around 50 lux in a dimmed state, I would recommend a stage brightness of 200-500 lux. This way, in my opinion, a pleasant contrast between the audience area and the stage area could be created.

11.7. Shadows and patterns

Fundamentally, complete illumination with soft light and little shadow formation is a safe choice, especially for choreographies with many dancers, with large and fast movements.

Many and strong shadow images of the dancers could potentially be a challenge for individuals on the spectrum, as they distract from the actual choreography and can be perceived as uncomfortable or restless. Diffuse light, indirect light or deep side light would be a common way, for example, to illuminate dancers without strong shadow images on the ground. However, if you decide for artistic reasons to use spots or sharp shadow images, I would recommend using them for solos, duet scenes, and slow or synchronous group choreographies so that the scenery does not appear too confusing or overwhelming due to the shadow casting of the dancers on the ground or stage design.

When using gobos or light patterns, they should proceed with caution, as individuals on the spectrum may react sensitively to crazy and chaotic patterns, similar to shadow casting. Here, you should weigh whether it is relevant to the scenery or narration or whether it is a matter of personal taste.



Fig.5. Sharp shadows



Fig.6. Soft shadow casting by diffuse light



Fig.7. Scenes like this could be unpleasant for some viewers.



Fig. 8. Avoid color clashes or crazy, overwhelming color combinations

11.8. Color temperature

My recommendation for a neutral stage lighting would be to use white light in the range of 2700K - 3500K as it is perceived as warm and soothing. Cooler light may be perceived as harsh and over-stimulating. This recommendation applies only to a neutral dance performance. When working with scenes, the color temperature should reflect the environment envisioned in the piece.

11.9. Colors

Colors are subjective - we are creatures formed by a composite of experiences, associations and cultures, and those influences color our perception. (See: Debate: "is color purely subjective?" by Kassia St Clair.) However, there is also another view that can help us achieve an autism-friendly performance based on color. Certain colors have a very universal significance. This is coded into our brain, giving us that instinctive feel of fire being dangerous and the beach being relaxing.

A clear color definition can help to understand the narrative and arouse the right emotions by the spectators. It is important to use colors, but you should also make sure that they are not too intense for people on the spectrum. It is better to use muted colors than fully saturated ones.

11.9.1. Autism friendly colors and meanings

Although there is no general advice considering what makes a color scheme autism-friendly, in some cases, muted tones can help to prevent sensory overloading. When it comes to calming colors for autism, muted tones of greens and blues are a great choice. They have much shorter wavelengths than brighter colors, meaning much less stimulation in the brain occurs. Softer tones of greens and blues banish the feeling of chaos and often soothe people who have various sensory conditions, including autism. Soft, muted oranges can be autism-friendly colors, providing a comforting warmth. Pastel pinks and lilacs might create the feeling of safety and love.

11.9.2. Colors with higher risk of sensory overloading

Red: The color red, in particular, can have quite a strong effect on those who are autistic, as they might perceive red as fluorescent. Referred to as a high-energy color, it can increase blood pressure resulting in tension or hyper action. Red is also sometimes associated with parts of the body that are in pain, which can trigger meltdowns or general upset.

Yellow: Similarly to red, yellow can be overstimulating for people with autism and therefore should also be avoided as it could trigger a reaction in a person with autism. Both colors must be avoided in an autistic

person's sensory space to make the user feel more comfortable and fully benefit from their sensory experience.

Source: <https://www.experia.co.uk/blog/ultimate-guide-to-autism-friendly-colours/>

11.9.3. Color psychology – an insight

I suggest using colors adequately to increase accessibility. The following interpretations might be influenced by cultural traditions, and it is mostly linked to Western and German contextualization of color psychology. In the practical application, multicultural awareness is highly advised.

RED

Associated with energy, war, danger, strength, power, determination as well as passion, desire, and love. Enhances human metabolism, increases respiration rate, and raises blood pressure. It attracts attention more than any other color, at times signifying danger – that has a biological background too.

GREEN

Color of nature. It symbolizes growth, harmony, freshness, and fertility, considered beneficial to the mind and body. Slows human metabolism and produces a calming effect. Strongly associated with tranquility and calmness. Used to symbolize piety and sincerity.

BLUE

Unique and authentic, enthusiastic, sympathetic, and personal; they seek meaning and significance in life. Blue is often preferred by warm, communicative, and compassionate individuals who care about what they do. Idealistic, spiritual, and sincere; they value unity and integrity in their relationships; they are often natural romantics and nurturers. Blue creates a peaceful but flexible environment, imaginative.

YELLOW

Associated with joy, happiness, intellect, and energy. Produces a warming effect, arouses cheerfulness, stimulates mental activity, and generates muscle

energy. Bright, pure yellow is an attention-getter, which is the reason taxicabs are painted this color. When overused, yellow may have a disturbing effect, it is known that babies cry more in yellow rooms. But yellow also indicates honor and loyalty. Later the meaning of yellow was connected with cowardice and jealousy.

ORANGE

Combines the energy of red and the happiness of yellow. It is associated with joy, sunshine, and the tropics. Represents enthusiasm, fascination, happiness, creativity, determination, attraction, success, encouragement, and stimulation.

PINK

This is a color that represents a gentle type of love. Pink stands for tenderness, vulnerability, and youth. It is a calming, non-threatening color. It is linked to innocence, hope, and optimism.

The pink color also represents positive aspects of traditional femininity like nurture and kindness. Pink can be linked to childhood sweetness and innocence, appearing sometimes as naïve or silly

PURPLE

Combines the stability of blue and the energy of red. Associated with royalty. It symbolizes power, nobility, luxury, and ambition. Conveys wealth and extravagance. Associated with wisdom, dignity, independence, creativity, mystery, and magic and also, hope.

WHITE

Associated with light, goodness, innocence, purity, and virginity. Considered to be the color of perfection. Signifies safety, purity, and cleanliness. Usually has a positive connotation. Can represent a successful beginning. Depicts faith and purity.

Source: <https://www.colorpsychology.org>



11.10. Lighting changes - scene changes

In an autism-friendly dance performance, it is important to make lighting changes and visual effects as gentle and predictable as possible.

Sudden lighting changes or bright effects can be overstimulating and stressful for some people on the spectrum.

It is also advisable not to include blackouts in the piece. However, if you want to use light to enhance surprise moments, fast scene/color changes, or if there are scenes that may be emotional and overwhelming, it should be noted in the program or mentioned again before the performance starts. A short introduction to the piece with music and lighting moods could certainly never go wrong, but rather help to make the performance understandable for everyone, thus possibly avoiding sensory overload.

Advice:

After demanding scenes, you could also incorporate a little break, if it is possible, dramaturgically or scenically. Instead of a blackout for the scene change or set change, you could immerse the stage in a pleasant, not too bright color, and with this to give the audience a moment of rest.

11.11. Set design and costumes

Lighting is responsible for ensuring that the set design and costumes are best perceived by the audience. Here, however, it is also important for a sensory-friendly performance to make sure that reflective objects or costumes do not distract the light into the auditorium

through movement or other influences. Therefore, it is always important to pay attention to this.

11.12. Fog and haze

Do not use sudden and dense fog. It is very noisy and can overstimulate people on the spectrum. If necessary for the sceneries use haze instead or prepare the audience before the performance starts. Consider that many of these effects have a smell as well.

11.13. Summary

a. What to do:

- Information on lighting in the program
- Entrance area and foyer illuminated in a soft and pleasant way
- Auditorium dimmed during the performance
- Diffuse light
- Gentle lighting changes
- Muted colors

b. What to avoid:

- Flickering Lights
- Strobe effects
- Rapid light-color changes
- Bright color combinations
- Restless patterns and movements
- Glare in the audience
- Blackouts

12. APPENDIX

12.1. Literature: Scientific conceptualization of autism

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