Practitioners Corner

The Science behind Spontaneity

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Spontaneity and creativity were central to J.L. Moreno's understanding of mental health and social functioning. He developed spontaneity tests, spontaneity training, and role training to help people have more access to their spontaneity and creativity. In *The end of trauma*, Bonanno (2021; Bonanno, G. A. *The end of trauma: How the new science of resilience is changing how we think about PTSD*. New York, NY: Basic Books) lays out two factors—flexibility mindset and flexibility sequence—that work together to promote resilience in the face of traumatic events. These two factors help explain both inverse link between anxiety and spontaneity and what happens mentally in the process of spontaneity. By bringing the past and the future into the present moment on the psychodrama stage, psychodrama provides a way to help participants expand their access to spontaneity and creativity, develop a flexibility mindset, and practice the flexibility sequence.

KEYWORDS: Spontaneity; psychodrama; resilience; flexibility mindset; flexibility sequence

Imagine that you are meeting a friend for lunch in a charming café. You choose a table close to the corner, away from other guests so that the two of you can catch up. Soon after you and your friend have gotten settled, another guest sits at a table right next to you, pulls out a newspaper, and proceeds to open it, spreading it into "your space." Then, when your bread comes, he asks for a piece, as he reaches over to take it before you respond. So many aspects of this scene feel wrong. There are plenty of other tables, but he chose to sit next to you. He is clearly invading your space but doesn't seem to care. And then he is further violating your space by reaching for a roll. How do you respond? Do you confront him? Politely ask him to move? Go to the host to ask to be moved? Ignore him?

This is a scenario from an episode of "Candid Camera," an American Reality TV show that pulled pranks on ordinary people by putting them in unusual situations. At the end of the prank, the show's hosts reveled the prank to their

unwitting participants with the show's catchphrase "Smile – You're on Candid Camera."

Some "participants" gently confronted the invasive man with his newspaper. Some asked the restaurant staff to move them to a different seat. Some glared at him and left. When the invasive man brought them in on the joke with the classic line, "Smile! You're on Candid Camera," they all got a chance to reflect on their reactions, laugh at themselves, and have access to new strategies for dealing with invasive people in the future.

Allen Funt, the original director and producer of "Candid Camera" was most likely inspired by watching J.L. Moreno conduct spontaneity tests at his Psychodrama Open Sessions in New York City.[1] Moreno (1953, p. 3) believed, "A truly therapeutic procedure cannot have less an objective than the whole of [hu] mankind," and hosted open sessions to take psychodrama out of the hospital and therapy office into the public.

In a typical open session, the director for the evening warms participants up to a theme and a group member is chosen to be the protagonist (the person whose issue would be enacted on the stage). The director has the protagonist choose other participants to play the auxiliaries—the other people who are important in the protagonists' story. For example, if the protagonist had an issue with his or her father, they would choose someone from the group to play their father. Once auxiliaries are cast, the director invites the protagonist to speak to their auxiliaries and reverse roles with them to gain insight into the relationship. When the action is done, the director has the auxiliaries let go of roles they took on in the drama and come back to their own roles, usually by saying something like, "I'm not your father, I'm Bob." Then the director invites members of the group about how the protagonist's story relates to their own lives.

Psychodrama Open Sessions usually involve demonstrations of a full psychodrama but the first public session in New York City in 1928 involved a spontaneity test.[2] Spontaneity tests are different. When Moreno conducted spontaneity tests, he presented a situation that was out of the ordinary and the participant would need to respond immediately. Each participant in a spontaneity test was provided with the exact same situation.[3] For example, Moreno (1946) described a spontaneity test in which female subjects were admitted separately into the test scene with no knowledge of how other subjects reacted to the test situation. Each subject was told that the tester would portray her husband and instructed

[1]According to oral history, passed down by Moreno's students. Allen Funt was one of many people who were influenced by Moreno's work. Other people who attended open sessions and later developed techniques based off of psychodrama include Virginia Satir, Fritz Perls, and Eric Berne. In a review of Fritz Pearl's Gestalt Therapy Verbatim, Berne (1970, p. 164), Berne wrote, "Pearls shares with other "active" therapists the "Moreno problem: the fact that nearly all known 'active' techniques were first tried out by Moreno in psychodrama, so that it is difficult to come up with an original idea in this regard."

[2]See: Moreno (1946, p. 114). First public session in New York City in 1928.

[3]You can find out more about spontaneity tests in Moreno (1946).

to respond to him as if he were her husband. The tester, in the role of husband, enters and tells his wife (the subject) that he is in love with another woman and wants a divorce. The instructions and scene were the same for each subject. The recorders assessed the subjects' responses. Other scenarios included a subject responding to being pulled over by a state trooper for driving over the speed limit and an employee being called into the boss' office and told that they were being dismissed because their record had been unsatisfactory (Moreno, 1946).

Moreno considered spontaneity, in conjunction with creativity, as the foundation for all human progress and activity (Nolte, 2014). Moreno developed psychodrama to help people increase their spontaneity and creativity to live fuller, deeper, and more meaningful lives. He defined spontaneity as having an adequate response to a new situation or a new and adequate response to an old situation and considered spontaneity to be the necessary intervening factor for creativity to be released (Moreno, 1956). Moreno (1953) noted that anxiety was inversely related to spontaneity and proposed that one could warm up to the spontaneity state.[4] Therefore, Moreno saw that anxiety is something one could move through. Moreno understood spontaneity to be a catalyst for creativity and designed spontaneity tests to help participants learn to access their spontaneity and spark their creativity. Later, at the Hudson School for Girls,[5] Moreno developed spontaneity training and role training to help the incarcerated girls adjust to the school environment and the role demands of the society at large (Moreno, 1953). Moreno found that having access to one's spontaneity and creativity made one less likely to get stuck in ineffective or less-than-optimal patterns of behavior.

Although Moreno (1953) considered spontaneity-creativity as the most important problem in psychology, there hasn't been a lot of empirical research on spontaneity as Moreno defined it. Moreno (1944) proposed that one could measure spontaneity by giving spontaneity tests to participants and having observers rate each participant's spontaneity by scoring the adequacy, novelty, and speed of their response and creating a spontaneity quotient. However, Moreno's spontaneity tests "lacked the basic psychometric requirements of a psychological measure (Davelaar, Araujo, & Kipper, 2008, p. 118) and therefore did not provide empirical validation of spontaneity.

Several questionnaires have been developed to measure spontaneity. The first, the Personal Attitude Scale (PAS), developed by Collins, Kumar, Treadwell, and Leach (1997) was based on characteristics related to spontaneity in the literature. The authors created a Likert-type scale of 58 items. While the PAS demonstrated good reliability, Kellar, Treadwell, Kumar, and Leach (2002) revised the PAS to create PAS-II by deleting items they found to limit the PAS's scope, added

[4]Research conducted by Kipper (2006) suggests a more complex relationship between spontaneity and anxiety. His research indicated that having a spontaneity deficit correlated positively with measures of anxiety, obsessive-compulsive behavior, and an orientation in the past. However, later research on panic disorder and spontaneity by Tarashoeva, Marinova-Djambazova, and Kojuharov (2017) confirmed Moreno's general assertion.

[5]Formally known as The New York State Training School for Girls at Hudson.

in new items, and reworded others to increase clarity. The PAS-II consisted of a 66-item Likert-type scale and demonstrated an appreciable improvement in reliability, compared to the PAS. Both PAS and PAS-II revealed the following six characteristics of spontaneous behavior:

> (a) It is novel and creative, (b) it is immediate, (c) it is adequate and appropriate, (d) it occurs easily and effortlessly, (e) the individual acts with total involvement, and (f) the individual is in control of his or her actions, which are not impulsive (Kellar et al., 2002, p. 37).

While Kellar et al. (2002) were researching the PAS-II, Kipper and Hundal (2005) were conducting research on their tool to measure spontaneity—the Spontaneity Assessment Inventory (SAI)—to quantify aspects of spontaneity. In contrast to the PAS and PAS-II which were created by reviewing published literature on spontaneity and distilling the various characteristics and descriptions of spontaneity and creating a scale, the SAI was developed by asking 20 senior level psychodramatists who were considered to be experts in the field to write five adjectives or two–three-word characteristics that they felt to describe "the feeling of being in a spontaneous state" (Kipper & Hundal, 2005, p. 122). They also looked at the opposite of spontaneity and asked the same group of experts for five adjectives that describe "the feeling of being in a non-spontaneous state" (Kipper & Hundal, 2005, p. 122). After deleting redundancies and overly long descriptions, the authors created a list of items, including both spontaneity and non-spontaneity and ask one group of research participants to write a sentence about an activity or situation in which they felt spontaneous and using a 4-point Likert-type scale to rate the extent to which each of the 125 items reflected their feelings in that situation. The authors asked the second group of research participants to write a sentence about an activity or situation in which they did not feel spontaneous and using a 4-point Likert-type scale to rate the extent to which each of the 125 items reflected their feelings in that situation. Based on the results of the responses, they created two lists, the SAI and the Spontaneity Deficit Inventory (SDI), which they further refined so that both inventories had 6-point Likert-style responses ranging from 1 = none to 6 = very strong to create the SAI with 20 items and the SDI with 17 items. They found a positive correlation between spontaneity and well-being.

Kipper and Shemer (2006) revised the SAI to create the Revised Spontaneity Assessment Inventory (SAI-R) by making it shorter (18 questions, rather than 20) and amending the Likert-type scale from 6 points to 5 points. The motivation for dropping the two questions was to make the inventory easier to translate into other languages. Kipper and Shemer (2006) found a statistically significant correlation between spontaneity and well-being and a negative correlation between spontaneity and stress.

In the last two decades, research on spontaneity using the SAI-R has supported and extended Moreno's original conceptualization of spontaneity. Kipper and Shemer (2006) found a negative correlation between spontaneity and

paranoia. In a controlled experiment in Bulgaria, Testoni et al. (2016) found spontaneity as measured by an Italian translation of the SAI-R to have a significant negative relationship with both psychological suffering and depression among Italian college students. Similarly, using a German translation of SAI-R, Rabung, Wieser, Thomas, Testoni, and Evans (2016) found spontaneity as significantly and negatively related to psychological suffering and depression among German university students.

Davelaar et al. (2008, p. 124) explored the relationship between SAI-R and characteristics thought to be the components of spontaneity and found a "solid, positive relationship between spontaneity and self-efficacy." Research conducted in Italy using path analysis found a significant mediation of spontaneity between self-efficacy and all domains of psychological distress among adolescents and a significant mediation of spontaneity between self-efficacy and all domains of psychological distress other than the risk domain among young adults (Ronconi, Giannerini, Testoni, Zulian, & Guglielmin, 2018). Kipper, Green, and Prorak (2010) found a positive correlation between spontaneity and creativity and a significant negative correlation between spontaneity and impulse. Susana and Heidrun (2020) found that spontaneous movement helped to increase spontaneity, creativity, and welfare among a group of migrants in Glasgow, Scotland.

Several studies offer support for Moreno's contention that psychodrama will help people have access to spontaneity. Tarashoeva et al. (2017) explored the impact of psychodrama on clients diagnosed with panic disorder in Bulgaria. They found that research subjects who participated in a weekly 3-hour psychodrama group for 6 months (25 sessions) in conjunction with medication achieved a significantly greater reduction in their anxiety symptoms, an increase in their spontaneity, and an improvement in their quality of life and social functioning, compared to patients who only received pharmacotherapy. Testoni, Bonelli, Biancalani, Zuliani, and Nava (2020) explored the impact of participation in a weekly psychodrama group (21 weekly sessions) among a group of incarcerated men with substance dependance. Their results supported the effectiveness of psychodrama for increasing spontaneity and self-efficacy. In addition, the participants in the study also experienced a decrease in psychological distress, a decrease in symptoms of depression and anxiety, and an improvement in their emotional and social functioning.

The recent research has suggested that access to spontaneity and creativity enhances our well-being in general and makes people more resilient in the face of potentially traumatic situations. Bonanno (2021), professor of clinical psychology at Teachers College, Columbia University, and author of *The end of trauma* has spent years researching resiliency in the face of traumatic events. He defines resilience as maintaining relatively stable levels of psychological and physical functioning after exposure to a potentially traumatic event (Bonanno, 2004). Counter to what many expected, much research suggests that the majority of people who are exposed to traumatic events do not develop post-traumatic stress (Hoppen & Morina, 2019; Kessler et al., 2017). Instead, most people who are exposed to traumatic events experience a resilience trajectory that encompasses

positive aspects of functioning (Bonanno, 2004; Bonanno, Maccallum, Malgaroli, & Hou, 2020; Bonanno, 2021).

In his efforts to explain what made people resilient, Bonanno (2021) found that people who had a flexible mindset and who were able to follow a flexibility sequence were more likely to be resilient when they experienced traumatic events. Significantly, these two key factors, flexibility mindset and flexibility sequence, worked in conjunction with each other to produce resilience. The flexibility mindset is the belief that we will be able to respond adequately to the challenge at hand and a willingness to do whatever is necessary to respond to the challenge. At its core, the flexibility mindset is rooted in the following three interrelated beliefs:

1. Optimism about the future
2. Confidence in our ability to cope
3. Willingness to think of a threat as a challenge

The flexibility mindset provides the motivation needed to change behavior flexibly (Bonanno, Chen, & Galatzer-Levy, 2023). Thinking flexibly increases the odds of helping people develop resilience by bringing all the "resilience promoting traits and behaviors to bear on their situation as best they can" (Bonanno, 2021, p. 198). Note that the flexibility mindset doesn't make us resilient but paves the way for resilience by creating the mental space that allows people to engage in what Bonanno (2021) calls the flexibility sequence. The flexibility sequence is more of a process of inquiry regarding the particular context, one's repertoire of abilities, and feedback monitoring. The flexibility sequence entails reflecting on the following four questions in the face of traumatic events:

1. What is happening?
2. What do I need to do?
3. What am I able to do?
4. Is it working?

Research supports the power of engaging the flexibility sequence to navigate traumatic events. Chen and Bonanno (2021) found that the majority of participants had at least a moderate level of skill in all the steps of a flexibility sequence. These skills, in turn, were predictive of better mental health outcomes. Furthermore, research supports the significance of the sequencing of flexibility skills. Using sequential mediation path modeling, Robinson, McGlinchey, Bonanno, Spikol, and Armour (2022) supported the hypothesis that the sequence of context identification, regulatory strategy repertoire, and review of its effectiveness would predict psychological resilience.

Bonanno's research on flexibility mindset and flexibility sequence (Bonanno, 2021; Bonanno et al. 2023; Chen & Bonanno, 2021) support Moreno's (1946, 1953) concept of spontaneity. A key component in the flexibility mindset is confidence in one's coping ability (Bonanno, 2021). This is very similar to

self-efficacy, a belief in one's own ability to take the actions necessary to attain desired performance goals (Bandura, 1997). Davelaar et al. (2008) found a strong, causal relationship between self-efficacy and spontaneity.

Further, Bonanno (2021) clarifies the link between anxiety and spontaneity because people who feel optimistic about the future, have confidence in their ability to cope, and can adopt a challenge mindset in a particular situation are less likely to be anxious and thus have more access to spontaneity and creativity. In other words, having a flexibility mindset creates the space for spontaneity to express itself.

In essence, Bonanno (2021) lays out the mental sequence for people to respond adequately in extraordinary situations. In contrast, he found that people who developed post-traumatic stress had limited responses and described feeling like they had no choice when faced with difficulties. The flexibility sequence describes what happens in the process of spontaneity and creativity.

Through his experience working with patients at his hospital, Moreno observed that when patients were able to revisit scenes from their past on the psychodramatic stage, they gained insight into what happened in the past, and that by redoing the scene with more resources and the support of the group, they were able to respond to current life situations more effectively. It is in the redoing of the scene where the protagonist has an opportunity to do things differently, expand their role repertoire, and experience more effective possible responses to challenging situations.

Notably, psychodramatic enactments are experienced in the present moment. By bringing history and the future into the absolute present, one finds the presence of the moment guiding us into the reality of the flexibility of mind and the flexibility of sequence. In other words, this flexibility is experienced in the present moment.

As with other group processes, the speaker or primary protagonist is not the only one who benefits. Much like one can experience vicarious trauma, the group members not in the protagonist's role can experience vicarious growth (Yalom & Leszcz, 2005). People cast in auxiliary roles often get insight from the opportunity to explore different roles. A person who felt abandoned by their mother might have the experience of playing the abandoning mother and realize how overwhelmed the mother might have felt or that her inability to nurture them was not their fault. They may also get to experience, in the role of a child, what it feels like to be properly nurtured. Much like being an audience member at a movie or play, audience members have emotional responses to the scenes that unfold on stage and gain insight into their own life situations. For example, audience members who tend to be very hard on themselves may have an aha moment when they see a protagonist nurture their "child self" on the stage.

Through the enactment process, participants can develop or reinforce their sense of optimism, build confidence in their ability to cope, and develop and adopt a challenge mindset. In addition, by practicing and/or witnessing others practice new ways of responding to situations, participants can give themselves

the space they need to assess a situation, determine a realistic course of action, and have the presence to evaluate the effectiveness of their strategy.

However, more research is needed. The future research should promote the work of Tarashoeva et al. (2017) and Testoni et al. (2020) exploring the impact of participating in a psychodrama group on anxiety and access to spontaneity as measured by an instrument, such as the SAI-R (Kipper & Shemer, 2006).

In addition, the future research should assess the impact of participating in a psychodrama group on the ability to have a flexibility mindset. That is, does participation on a psychodrama group increase participants' optimism about the future, confidence in their ability to cope, and ability to view what might be considered a threat as a challenge? Participants in an ongoing psychodrama group could be given a questionnaire that includes the SAI-R (Kipper & Shemer, 2006) and asked questions addressing their optimism about the future, their confidence in their ability to cope, and their ability to view what might be considered a threat as a challenge.

Research on "the-best-possible-self" technique has shown that when people imagine themselves "in a future in which everything has turned out as good as possible," they were more optimistic than people who did not engage in the technique (Malouff & Schutte, 2017). The future projection technique in psychodrama provides a way to do "best-possible-self" exercise in action with the advantage of bringing in embodied cognition—a way of changing our thinking through action. It would be helpful to see whether participating in a "best-possible-self" enactment in a psychodrama session led to a higher degree of optimism than simply responding to the writing prompt, or whether the impact of participating in a psychodramatic "best-possible-self" enactment exercise has a longer term impact than simply writing about one's "best-possible-self."

Finally, research should be conducted to assess the relationship between spontaneity, as measured by the SAI-R (Kipper & Shemer, 2006) and the flexibility sequence. That is, does spontaneity relate to the ability to assess, in the moment, what's happening, what one needs to do that they can actually do in the moment, and whether one's response seems effective.

REFERENCES

Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.

Berne, E. (1970). A Review of Gestalt therapy verbatim. *American Journal of Psychiatry*, *126*(10), 164.

Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist*, *59*(1), 20–28. https://doi.org/10.1037/0003-066X.59.1.20

Bonanno, G. A. (2021). *The end of trauma: How the new science of resilience is changing how we think about PTSD*. New York, NY: Basic Books.

Bonanno, G. A., Chen, S., & Galatzer-Levy, I. R. (2023). Resilience to potential trauma and adversity through regulatory flexibility. *Nature Reviews Psychology*, 2(11), 663–675. https://doi.org/10.1038/s44159-023-00233-5

Bonanno, G. A., Maccallum, F., Malgaroli, M., & Hou, W. K. (2020). The context sensitivity index (CSI): Measuring the ability to identify the presence and absence of stressor context cues. *Assessment*, *27*(2), 261–273. https://doi.org/10.1177/1073191118820131

Chen, S., & Bonanno, G. A. (2021). Components of emotion regulation flexibility: Linking latent profiles to depressive and anxious symptoms. *Clinical Psychological Science*, *9*(2), 236–251. https://doi.org/10.1177/2167702620956972

Collins, L. A., Kumar, V. K., Treadwell, T. W., & Leach, E. (1997*).* The personal attitude scale: A scale to measure spontaneity. *Journal of Group Psychotherapy, Psychodrama & Sociometry*, *49*(4), 147–156.

Davelaar, P. M., Araujo, F. S., & Kipper, D. A. (2008). The revised spontaneity assessment inventory (SAI-R): Relationship to goal orientation, motivation, perceived self-efficacy, and self-esteem. *The Arts in Psychotherapy*, *35*(2), 117–128. https://doi.org/*10.1016/j.aip.2008.01.003*

Hoppen, T. H., & Morina, N. (2019). The prevalence of PTSD and major depression in the global population of adult war survivors: A meta-analytically informed estimate in absolute numbers. *European Journal of Psychotraumatology*, *10*(1), 1578637. https://doi.org/10.1080/20008198.2019.1578637

Kellar, H., Treadwell, T. W., Kumar, V. K., & Leach, E. S. (2002). The personal attitude scale-II: A revised measure of spontaneity. *Journal of Group Psychotherapy Psychodrama & Sociometry*, *55*(1), 35–46. https://doi.org/10.3200/JG.1.35–46

Kessler, R. C., Aguilar-Gaxiola, S., Alonso, J., Benjet, C., Bromet, E. J., Cardoso, G., & Koenen, K. C. (2017). Trauma and PTSD in the WHO world mental health surveys. *European Journal of Psychotraumatology*, *8*(Sup5), 1353383. https://doi.org/10.1080/20008198.2017.1353383

Kipper, D. A. (2006). The canon of spontaneity-creativity revisited: The effect of empirical findings. *Journal of Group Psychotherapy Psychodrama and Sociometry*, *59*(3), 117–125. https://doi.org/10.3200/JGPP.59.3.117-126

Kipper, D.A., Green, D. J., & Prorak, A. (2010). The relationship among spontaneity, impulsivity, and creativity. *Journal of Creativity in Mental Health, 5*, 39–53. https://doi.org/10.1080/15401381003640866

Kipper, D. A., & Hundal, J. (2005). The spontaneity assessment inventory (SAI) and the relationship between spontaneity and non-spontaneity. *Journal of Group Psychotherapy, Psychodrama & Sociometry*, *58*(3), 119–129. https://doi.org/10.3200/JGPP.59.3.117-126

Kipper, D. A., & Shemer, H. (2006). The revised spontaneity assessment inventory (SAI-R): Spontaneity, well-being, and stress. *Journal of Group Psychotherapy Psychodrama and Sociometry*, *59*(3), 127–137. https://doi.org/10.1016/j.aip.2008.01.003

Malouff, J. M., & Schutte, N. S. (2017). Can psychological interventions increase optimism? A meta-analysis. *The Journal of Positive Psychology, 12*(6), 594–604. https://doi.org/10.1080/17439760.2016.1221122

Moreno, J. L. (1946). Spontaneity test in standard life situations. In J. L. Moreno (Ed.), *Psychodrama,* vol. 1 (pp. 123–129). Beacon, NY: Beacon House Press.

Moreno, J. L. (1944). *Spontaneity test and spontaneity training. Psychodrama and group psychotherapy monograms,* Issue 4. Beacon, NY: Beacon House Press.

Moreno, J. L. (1953). *Who shall survive*? *Foundations of sociometry, group psychotherapy and sociodrama* (2nd ed.). Beacon, NY: Beacon House Press.

Moreno, J. L. (1956). System of spontaneity and creativity. In J. L. Moreno (Ed.), *Sociometry and the science of man*. Beacon, New York: Beacon House Press.

Nolte, J. (2014). *The philosophy, theory and methods of JL Moreno: The man who tried to become god*. Routledge.

Rabung, S., Wieser, M., Thomas, A., Testoni, I., & Evans, C. (2016). Psychometric evaluation of the German version of the revised spontaneity assessment inventory (SAI-R). *Zeitschriftfür Psychodrama und Soziometrie*, *15*, 25–39. https://doi10.1007/s11620-015-0313-x

Robinson, M., McGlinchey, E., Bonanno, G. A., Spikol, E., & Armour, C. (2022). A path to post-trauma resilience: A mediation model of the flexibility sequence. *European Journal of Psychotraumatology*, *13*(2), 2112823. https://doi.org/10.1080/20008066.2022.2112823

Ronconi L., Giannerini, N., Testoni, I, Zulian, M., & Guglielmin, M. S. (2018). A structural model of well-being, spontaneity and self-efficacy: Italian validation between adolescents and young adults. *Trends in Psychiatry and Psychotherapy*, *40*(2),136–143. http://dx.doi.org/10.1590/2237-6089-2017-0072

Shapiro, L. (2019). *Embodied cognition* (2nd ed.). New York, NY: Routledge. https://doi.org/10.4324/97813151803

Susana, G., & Heidrun, P. (2020). Improving migrant well-being: Spontaneous movement as a way to increase the creativity, spontaneity and welfare of migrants in Glasgow. *Body Movement and Dance in Psychotherapy*, *15*(3), 189–203. https://doi.org/10.1080/17432979.2020.1767208

Tarashoeva, G., Marinova-Djambazova, P., & Kojuharov, H. (2017). Effectiveness of psychodrama therapy in patients with panic disorders—Final results. *International Journal of Psychotherapy*, *21*, 55–66.

Testoni, I., Bonelli, B., Biancalani, G., Zuliani, L., & Nava, F. A. (2020). Psychodrama in attenuated custody prison-based treatment of substance dependence: The promotion of changes in well being, spontaneity, perceived self-efficacy, and alexithymia. *The Arts in Psychotherapy*, *68*, 101650. https://doi.org/10.1016/j.aip.2020.101650

Testoni, I., Wieser, M., Armenti, A., Ronconi, L., Guglielmin, M. S., Cottone, P., et al. (2016). Spontaneity as predictive factor for well-being. *Springer Fachmedien Wiesbaden*, *15*, 11–23. https://doi.org/10.1007/s11620-015-0307-8

Yalom, I., & Leszcz, M (2005). *The theory and practice of group psychotherapy*. New York, NY: Basic Books.