Chapter 7 Using the Arts to Promote Resiliency Among Persons with Dementia and Their Caregivers

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Over 5 million persons aged 71 and older (22.2%) have some form of cognitive impairment without dementia that can adversely affect memory and other executive functional capacities (Plassman 2008). This prevalence level and the additional 5 million with Alzheimer's disease, coupled with the burgeoning older population that will double in another 10 years, call for more creative approaches to helping these persons and their caregivers become more resilient in coping with the marked changes in their lives. The arts may be a helpful adjunct to traditional health care practices for those persons who now and will have dementia. This chapter follows from the Humanities and Arts Symposium presented at the Gerontological Society of America's 62nd Annual Scientific Meeting in Atlanta, GA in November 2009. The authors explore how using various art forms help persons with dementia and their caregivers cope with those circumstances.

Neuropsychologist Michelle Braun begins with an explication of how the plasticity of the brain and the arts complement neurobiology, allowing persons with dementia to have a better quality of life. Anne Basting follows with a first-person account of her experience using creative engagement to work with older persons with dementia and to teach her students what this means for them and their future patients. This leads to geriatrician Jerald Winakur, who uses the literary device of narrative medicine with his patients, telling the reader how his father's art and the course of his father's dementia of the Alzheimer's type influenced his life. Francesca Rosenberg describes how the "Meet Me at MoMA" program uses great works of art to evoke emotional memory among persons with Alzheimer's disease. And Susan McFadden concludes with the interesting cases of Leo and Mrs. G. who are persons with dementia whose engagement in the arts has helped them become more resilient. In the discussion, the range of artistic expression is tied to ideas for clinical practice to improve the quality of lives of persons with dementia and of those who care for them.

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Michelle Braun's "The Science of Artistic Engagement"

As with many scientific advances, our understanding of the value of artistic engagement for individuals with dementia began with poignant clinical observations. For many years, clinicians and caregivers reported that individuals with Alzheimer's disease seemed to respond positively to artistic engagement, as evidenced by behavioral changes including increased smiling and interaction, improved moods, and decreased agitation (Hanneman 2006; Stewart 2004). Over the past several years, a growing body of converging research has supported these observations, suggesting that artistic engagement is an important tool for improving quality of life, diminishing problem behaviors, and even improving some aspects of cognitive functioning in individuals with dementia. Interestingly, the benefits of artistic engagement do not appear to be isolated to certain types of artistic activities, and presently include varied techniques such as drawing, music, and dance. Although there are many other art forms yet to be studied and much more to learn about those that have been studied, this fresh field of scientific inquiry has started to provide important clues for guiding the care and maximizing the quality of life for individuals with dementia. To date, most research has focused on groups of individuals with dementia or case studies of individuals with dementia (usually artists), with findings suggesting important links between symptomatic improvement and artistic engagement, and providing rich hypotheses about underlying neurobiological mechanisms.

Artistic Engagement Helps Manage Symptoms

Clinicians and caregivers have long been interested in minimizing the agitation and depression that can accompany dementia and have been encouraged by recent evidence that these symptoms can be minimized with artistic engagement. The impact of music is perhaps the best studied art form in this regard, as it has been consistently linked with reductions in agitation. For example, in a study comparing normal controls to patients with dementia, Cho et al. (2009) showed that patients assigned to a music-intervention group versus care-as-usual group exhibited a significant decrease in depression and agitation. Another study showed significantly reduced agitation in patients with dementia who were exposed to music of their preference and to simulated family presence with average reductions in problem behaviors to 50% of the baseline rate (Garland et al. 2007). In an innovative study combining the use of endocrinological measurements, behavioral evaluations, and functional assessments, dementia patients receiving 16 sessions of music therapy demonstrated significantly decreased irritability, significant improvement on the "language" subscale of the Mini-Mental Status Examination, and a significant decrease in salivary chormogranin A (CgA) levels, a measure of stress and sympathetic nervous system activity (Suzuki et al. 2004). Such multi-modal assessment of outcome variables provides fruitful considerations for future studies that seek to expand upon traditional methods of behavioral assessment and examine links between physiological, cognitive, and behavioral variables.

Other studies have evaluated the impact of dance and wall art. In one study examining the outcome from nine weekly sessions of "Dance and Movement Therapy," dementia patients exhibited slight improvement in self-care abilities and improved performance on a cognitive measure of global planning and visuospatial ability (Clock Drawing), although no difference in memory or behavioral symptoms between the groups was evident (Hokkamen et al. 2008). Another study examined door testing behavior on a nursing home unit (a frequent source of agitation and distress for patients), and found significant reductions in door testing behaviors when the doors were disguised with a wall mural (Kincaid and Peacock 2003). In sum, findings from these studies and several others indicate that exposure to various forms of art results in improvement of behavioral symptoms and, in some cases, mild improvement in non-memory aspects of cognitive functioning (e.g. global planning, language).

Neurobiological Underpinnings of Artistic Engagement

By examining changes in artwork as a function of dementia subtype and/or stage, hypotheses about neurobiological changes have been developed. Most studies show an increase in abstraction in the artwork of patients with advancing Alzheimer's disease (Lev-Wiesel and Hirshenzon-Segev 2003), and decreased precision and color scheme (Crutch and Rossor 2006), all of which have been attributed to increased neuronal degeneration due to disease progression. Although few studies have examined how the artwork of patients with different subtypes of dementia might differ, a recent case-controlled study provides some evidence of a link between subtypes of dementia and different artistic changes (Rankin et al. 2007). In examining 49 patients with different subtypes of dementia [Alzheimer's disease (AD), semantic dementia (SD), frontotemporal dementia (FTD)] and normal controls, an interesting dissociation between subtypes of dementia and artistic style was noted: individuals with FTD created more bizarre art (presumably due to greater degeneration of frontal lobe areas), as did individuals with SD (the temporal lobe variant of FTD), while individuals with AD used a more muted color palette (attributed to potential deficits in visual association and decreased ability to recognize common objects). This study reflects a growing attempt to link dementia subtypes to specific features of artwork, and may help us to better understand the pathology of dementia and how we might compensate for it.

In addition to group studies, case studies have been utilized to drive speculation about the connections between artwork and neurobiological mechanisms. In contrast to the results of group studies discussed above, several case studies have depicted artists with *preserved* creativity into the later stages of dementia. For example, the artwork of well-known artist William de Kooning, as analyzed by

Espinel (2007), was judged to be generally consistent over the course of his dementia, even in the later stages of the disease. Espinel postulated a framework to explain this phenomenon – "Creating in the Midst of Dementia" – suggesting that the well-known deficit in semantic memory that characterizes AD may be offset by preserved functioning in three other memory systems (working, procedural, episodic), allowing continued consistency in the creation of artwork. Preserved drawing and creativity into the late stages of dementia was also demonstrated in the work of artist Danae Chambers (Fornazzari 2005). Although it is unclear why some studies show reduced artistic abilities in advancing AD and other studies show little to no change, some of this may be explained by the artist's prior experience (i.e. the well-learned abilities of experienced artists may be more resistant to neurodegeneration than the artwork of individuals with dementia who were not prior artists). Another important consideration in evaluating these findings is the lack of standardized criteria in judging the abstract nature of artwork (Crutch and Rossor 2006) which may complicate comparison of findings across studies.

It is also interesting to note an association between de novo artistic behavior and neurological conditions including FTD, epilepsy, subarachnoid brain hemorrhage, and Parkinson's disease (Pollak and Lythgoe 2007). Such research provides converging support that brain mechanisms are involved in artistic production. In comparison to the wealth of studies examining drawing in dementia, there are no known studies analyzing the neurobiological mechanisms of musical appreciation. In individuals without neurological compromise, activation in the emotional processing areas of the brain (limbic system structures) and right-hemisphere cortical areas is noted, although it is unclear if this association holds true in individuals with dementia. It is hoped that future studies will examine musical appreciation in individuals with dementia in order to elucidate specific neurobiological underpinnings and help inform future compensatory strategies and perhaps even therapies.

Becoming Artists Ourselves: Creating Research to Answer a Growing Need

While the work reviewed here provides us with empirically based hypotheses about why individuals with dementia appear to benefit from artistic engagement, and suggests underlying neurobiological mechanisms, we are only beginning to understand the scientific relationship between artistic engagement and dementia. Given that the number of individuals with AD in the United States is expected to increase by more than 50% by 2030 (from 5.1 million to 7.7 million; Alzheimer's Association 2009), and given that there are few if any other treatments available that can improve quality of life and behavioral symptoms as consistently as artistic engagement, continued creative research into the link between art and dementia is more important than ever.

Anne Davis Basting's Reflections on "Creative Resilience: Using the Arts to Strengthen Response to Aging and Stress"

I have been working in the applied arts with people in the mid-to-late stages of dementia for 15 years. Opening emotional and symbolic communication to people whom rational language has failed is a powerful experience, one that has given me great appreciation for the resiliency of people for whom much of the world is considered beyond growth and learning. At the moment, the core challenge in demonstrating the resilience of older adults with disabilities is the attitudes of their care providers. The assumption that growth, expression, skill building, even learning is not possible among older adults with physical and cognitive disabilities stultifies efforts to research and explore the benefits of arts and community development programs.

I approach this work as an artist and scholar of the humanities teaching students of all ages and abilities to develop and hone their skills in creative expression and shaping the world around them. In my case, "students" include my traditionally aged college students enrolled in my service-learning courses, people with memory loss living in congregate care settings, and the staff/family who partner in their care.

Research shows us that creative engagement can improve the quality of life of elders. There is another body of research on the environmental impact of art, like walking by art in the hallways or piping age-appropriate music into facility speaker systems. But my interest is in engagement-creativity that is used to simultaneously build a sense of self and community, not just in a given facility, but bridging that facility with the larger, outside world.

I recently organized and held a Think Tank at the Center on Age & Community in which we wrestled with the question of how to "radically transform activities" in long-term care to more fully reflect what we know from research – that the power of activities comes from creative expression, social interaction, and both skill and community building.

Several ideas emerged from the Think Tank. Activities need to morph into creative engagement projects that have meaning and purpose for a variety of participants connected to the older adult, including grandchildren, children, friends, paid care partners, and the general public. They need to allow for individual expression. They need to approach and depict the elder as a person, not a disease (or an accumulation of conditions). They need to build toward a product or event that can be invested in and shared with pride.

The Think Tank we held in May 2009 featured cutting edge media makers and artists, artists and writers working in community-building, leaders in long-term care, older adults, caregivers, and even a high school student who worked in a nursing home. We broke into small groups that blended artists with those working in long-term care in the hopes that the innovative thinking in each group would spur out-of-the-box ideas. In one exercise, I presented the small groups with a list of 10 activities suggested for people with dementia. The list included things such as "toss a ball," "collect baseball cards," and "make lemonade." I asked the groups to "enchant" the activity – to add a layer of mystery and meaning. The results were

consistently inventive and playful, enabling us to see a model for projects that open opportunities for one-on-one engagement, intra-facility groups, and extra-facility groups.

An example of such a creative project is "The Communal Table" (Fig. 7.1). Building off an activity suggestion to "sort silverware," the Think Tank group designed a series of activities around a larger project – to share in a meal that reflects the unique character of a given group. They suggested that the group:

- 1. choose a reason to celebrate together with a meal;
- 2. design the menu;
- 3. perhaps grow some food for the meal;
- 4. make some of the food for the meal;
- 5. design and make invitations for the meal;
- 6. create a guest list;
- 7. set the table;
- 8. create decorations:
- 9. create a "welcoming" ritual for the guests;
- 10. figure out what to ask guests to bring;
- 11. discuss celebrations they might have had in their family, or wish they would have had;
- 12. hold the meal:
- 13. document the meal with photos, video;
- 14. possibly live webcast the meal to another care facility as a way to "share" the meal more broadly;
- 15. clear the table;
- 16. work together to put away decorations and silverware (sort silverware);
- 17. write and share stories about "fantasy" meals you would like to have (fantasy dinner guests).

The model for the Communal Table project looked like this:

Engagement inside the group Can include families, residents, and staff Plan Prepare table Plan menu invite list Design Prepare/share invites meal PROJECT: Communal Table Web cam the Share meal and stories Share list of watch others of special Share stories of special fantasy dinner menus meals in the past party guests

Engagement with the larger world

Can include families, general public, sister facility or school groups

Fig. 7.1 The model for the Communal Table project

Research on the impact of creative engagement and its contribution to and support of resilience in older adults is limited. Studies tend to be small, not use control groups, and test only one side of the engagement – the older adults. The crucial component of these programs is that they build relationships and community. They increase the social connectivity of people whom the medical framework of institutional care sees not as people, but as an accumulation of diseases and losses.

A recent study on the TimeSlips storytelling method expanded the inquiry to look at the quality and quantity of engagement between staff and residents in nursing homes, as well as attitude changes among staff. Another research study (forthcoming) looked at the impact of the Storycorps Memory Loss Initiative on people with dementia and the family/friend who interviews them. These relational (dyad or triad) studies can start to capture the effect of creative engagement on the resiliency of older adults with physical and cognitive disabilities.

Jerald Winakur's Reflections on "His Father and the Impact of Art"

When I was a child I remember crawling into my father's lap, a pencil and a note-book in my hands. "Draw a dog, Daddy," I might say. Or a bird, or a tree. And he did. A few deft strokes and there it was. I thought it was magic, those figures coming to life on the paper through my father's hand. I have never been able to do this. Whatever the magic is, it is not in me.

My father spent his life working 6-day weeks in a dreary shop opened by his own father who then had the bad luck to die when my dad was only seven. His mother, an illiterate immigrant caught with her family of six children in the desperate circumstances of the Depression, had no choice but to take each child in turn out of school and put them to work in the store. At age 16, and 6 months shy of high school graduation, my father's turn came. And, aside from 5 years spent in the Army Air Corps photographing ground damage after the bombers made their runs, the shop became his life.

An old wooden easel gathered dust in a corner of our basement. During the years I grew up in that house, I never saw him put brush to canvas.

When I was a teenager, I worked with him after school and on Saturdays. We were driving home together one night after a long, busy day. He said, "You know, when I was in junior high – about your age – I had an art teacher who took an interest in me. He sent me home with a note for my mother. She beat me before I could read it to her. I guess she must have thought I'd gotten into some kind of trouble. She didn't need any more trouble. Anyway, when she finally let me read her the note, it said that this teacher wanted me to go to the Maryland Institute of Art. He'd make sure I got in and that it wouldn't cost anything..." I was moved in some way I didn't understand then. My voice caught. "So what did Granny say?" "Nothing," he said. "She tore up the note and walked away."

My father died of Alzheimer's disease 3 years ago. He was 87 years old. He had been going downhill for 7 years; I, his son the geriatrician, helped to keep him at home until the end. One might think I had some special insight into his disease, that somehow I could make it better, slow it down, figure out something. Who else, if not someone like me? But I muddled through like the rest of us do.

In a twist of fate, my father began painting again. His business was destroyed in one night during the civil unrest that occurred in Baltimore in the aftermath of the assassination of Dr. Martin Luther King. That left my father, with no other skills or education, unemployed at the age of 50. He careened into a deep depression, worked a series of dead-end jobs. My mother began a new career as a receptionist in a doctor's office – my office to be specific – where she worked for the next 30 years.

One day, the old easel appeared in a clearing in the garage. My father set up a series of bright lights, a table on which to place his study objects. He started going to the library almost every day and taught himself art history, coming home and talking to my mother about the lives of Renoir and Monet, Picasso, and Rousseau.

Paintings began to flow from his studio: the roses and irises from his garden, portraits of his family members done from memory and with the help of old photographs. His work encompassed every phase of modern art from the Impressionists through the Cubists and Abstract Expressionists. He would spend hours in the museum, studying how each artist applied the paint to the canvas. He experimented with sand and straw, watercolors, and pastels.

I began to hang his works in my medical office, which gave him immense pleasure. My patients would exclaim over them, offer to buy them. My father occasionally gave one away, but he could not bring himself to sell any. "I'm just a piker," he said. "I don't know what I'm doing."

Once I entered one of his oils in a local contest without his knowledge and took him to the gallery where all the works were to be hung after judging. There was his painting, "Wild Wren," a white and gold ribbon hanging from the frame. He had won the competition and I never saw him more ebullient than on that day.

This went on for over 20 years. His health began to fail. He had a couple of heart attacks and then prostate cancer. His production slowed but he kept painting. I began to notice that the works were changing, the perspective dimming, the faces on the portraits less realistic.

And then he painted no more. I would talk to him about it, trying to cajole him back into his studio. He would shrug his shoulders and say, "I just don't know what to paint anymore." Not long after, I realized he could no longer sign his name.

At age 80, during a hospitalization for heart failure, he developed delerium. He was never the same after that, and although I took him home and my family cared for him over the next 7 years, his decline was inexorable. When I visited, even during the worst times of his paranoia and belligerency, if I pulled out one of his old art books, sat down next to him, the book opened across our laps, and began to turn the pages, he would become engrossed. "Oh, I've always loved that one!" he would say.

My father is gone now. I have spent the last few years thinking about his life. He had all the risk factors for developing a dementing illness: a harsh childhood, the lack of educational achievement, severe blows to his self-esteem, bouts of

depression, vascular disease, etc. His father died young, his mother by a series of strokes, his brother while still in his 50s and his sisters with cancer.

I cursed the disease that stole my father's selfhood; I was brought to my knees on the day he could no longer remember my name. But he was in his mid-80s by then, and with all nature and nurture arrayed against him, I have to conclude that he was, in the end, saved by his art. The magic served him well.

Francesca Rosenberg's "Creative Resilience: Using the Art at MoMA to Strengthen Response to Aging and Stress"

Alzheimer's disease is a progressive illness that impacts not only memory, thinking, and behavior but also affects work, lifelong hobbies, and/or one's social life. Alzheimer's disease also adversely affects caregivers who often experience depression, increased anxiety, stress, and have less time to tend to their own lives. Since there is no available cure in sight, people with dementia and caregivers are looking for a way to help manage the disease. The Museum of Modern Art has found that looking at all kinds of visual art – paintings, sculpture, drawings, photographs, and prints – can positively impact both caregivers and care recipients.

Being one of the first museums in the country to offer programs to make its collection and special exhibitions accessible to people with Alzheimer's disease and their caregivers, in 2006 the Museum of Modern Art launched Meet Me at MoMA. This monthly program features interactive tours of the Museum's renowned collection of modern art and its special exhibitions for individuals in the early and middle stages of the disease, along with their family members and caregivers. Meet Me at MoMA gives those living with the degenerative disease an expressive outlet and forum for dialogue through guided tours and discussion in the Museum's galleries during non-public hours. Specially trained Museum educators engage participants during a tour of four or five artworks, including works by such modern masters as Henri Matisse, Pablo Picasso, Jackson Pollock, and Andy Warhol, related to a theme and presented in a predetermined sequence. Each tour lasts roughly one and a half hours, with about 15-20min spent at each artwork. Several discussion questions are posed to engage participants in observing, describing, interpreting, and connecting to the works and to each other. Historical points about the artworks are conveyed throughout the tour, and smaller group discussions are also often used to spark further interaction among participants.

Why Art?

While no one has attempted to scientifically prove why art is an effective tool, MoMA's ideas include these:

• Art looking as well as art making provides mental stimulation and learning possibilities as well as an outlet to spark expression and creative interpretation.

Preliminary research suggests that these kinds of activities might offer benefits to people with dementia.

- Art can tap into one's long-term and emotional memories feelings he or she have had before relating to events and people in their lives.
- Looking at art puts patient and caregiver on level playing field both can engage with the work at various levels and feel validated and empowered.
- Art can be a tool for communication thereby enabling human and social connection and understanding between patient and caregiver, and between patients and other patients and caregivers and other caregivers.
- Art offers the means to make connections between individual experience and the world at large.

NYU Center of Excellence for Brain Aging and Dementia Evaluation Study of *Meet Me at MoMA*

This initiative was funded through a generous grant from MetLife Foundation, enabling the Museum to produce resources, including a publication and a website, designed to equip museum professionals, care organizations, and individual families with methods for making art accessible to people living with early and middle-stage Alzheimer's disease.

Although anecdotal evidence exists, very little research has been conducted on the effects of the visual arts on brain function and mood. Thus, the NYU Center of Excellence for Brain Aging and Dementia (CEBAD) conducted a formal evaluative study that (1) assessed whether programs such as Meet Me at MoMA positively impact people with early-stage Alzheimer's, and (2) examined benefits for caregivers. The study was carried out over the course of 9 months by (1) Mary Mittelman, Dr.P.H., Director of the Psychosocial Research and Support Program of the CEBA&D and Research Professor in the Department of Psychiatry at the NYU School of Medicine and (2) Cynthia Epstein, LCSW, Social Worker and CEBA&D Clinical Investigator. The overall aim of this research project was to evaluate the impact of the Meet Me at MoMA program on quality-of-life outcomes for persons with dementia and their family caregivers. It was hypothesized that people with early stage dementia and their family caregiver would report: (1) decreased social isolation; (2) enhanced self-esteem; (3) fewer symptoms of depression; (4) improved mood; and (5) enhanced quality of life.

Thirty-seven dyads (74 individuals) in total were enrolled as study participants. To be eligible for inclusion in the study, one member of the dyad had to have a diagnosis of early-stage Alzheimer's disease or related dementia, have been accompanied by a family member, and have been attending the Meet Me at MoMA program for the first time.

The format of the study was as follows: prior to the start of a regularly scheduled monthly session of ,*Meet Me at MoMA*, participants completed an intake questionnaire, had lunch, and rated their mood before and after the session using a visual assessment scale. During the session, trained MoMA and NYU staff observed previously identified participants with Alzheimer's noting mood, level of engagement, and other behavior using a form tested for inter-rater reliability. After the session, members of the study were provided with a take-home questionnaire to be returned by mail. Study participants returned to MoMA 1 week later to complete a follow-up questionnaire (identical to the intake questionnaire), had lunch, and talked with MoMA educators informally about art.

Study Results in Brief

Findings were these:

- The importance of the educator. Beyond doubt, it is the style and approach of the educators which is never overtly didactic or condescending, but rather warm and interactive and the interaction with them that participants single out as being of exceptional importance to them. The way in which they involve the participants with dementia and elicit their comments, which are then met with genuine interest and appreciation, rekindles feelings of self-worth.
- *Intellectual stimulation*. Having the opportunity to learn, to be intellectually stimulated, to experience great art together was felt to be a "blessing."
- Shared experiences. The family members that participated in the project expressed profound gratitude that the person they care about had the opportunity to have this special experience and, just as important, that they shared it with their care recipient. For married couples, the opportunity to share an activity that was of interest to both partners validated their identity as a couple. Sons and daughters also expressed their pleasure in taking part in an activity with their parent in which both could be relaxed and engaged.
- Social interaction. For so many couples in which one has dementia, what were
 once "normal" social interactions become events fraught with strain and shame.
 While they did remark that the program was inherently a socializing activity,
 many participants expressed the wish that the program could be extended to
 include more social interaction after the gallery tour.
- Accepting environment. The educators, together with the entire MoMA staff, create a sense of safety and convey feelings of regard for the participants. The value placed on the person at least temporarily removes the stigma of Alzheimer's disease so that participants can enjoy the MoMA experience. It is possible that the extraordinary attention that was lavished on study participants may have heightened their feelings of being welcome and important, but this also serves to point out how much people with dementia feel the loss of status and nurture

in the community and how much they appreciate the efforts made on their behalf. The wish to continue to attend as a couple, where the limitations of the ill spouse would not affect the experience for the well, makes this kind of program particularly valuable.

- *Emotional carryover*. For both the persons with dementia and their caregivers there were positive changes to mood both directly after the program and in the days following the Museum visit. Caregivers reported fewer emotional problems, and all but one person with dementia reported elevated mood.
- Program extension. Almost all caregivers planned to return to the Museum for future programs, which is a testament to their positive experiences. The Meet Me at MoMA program also served as a catalyst, inciting new conversation in the days to follow.

Conclusion

Participants were very grateful for the *Meet Me at MoMA* program. As they began to know each other from repeated visits, the desire for more socializing became clear. The setting itself sends the message to the person with dementia that he or she continues to be a person of value, and those participants for whom it was a familiar place can now return with their self-esteem safe and even nurtured. Considering the small sample of participants, findings from this study were suggestive of the potential of the *Meet Me at MoMA* program to improve the lives of people with dementia and their caregivers. The investigators recommend a longer term study with larger numbers of participants to corroborate initial findings. For more information about the study or making art accessible to people with Alzheimer's and other dementias, visit http://www.moma.org/learn/programs/alzheimers or send an e-mail to alzheimersproject@moma.org.

Susan McFadden's "Resilience and Creative Engagement: The Role of Relationships" ¹

Psychologists and other social scientists borrowed the idea of "resilience" from the physical sciences. Resilient materials revert to their original forms after being stretched, bent, or twisted. Resilient people can "bounce back" when life circumstances stretch, bend, and twist them; resilient older adults are often described as aging successfully.

¹This section is adapted from the following paper: McFadden, S. H., & Basting, A. D. (2010). Healthy aging persons and their brains: promoting resilience through creative engagement. *Clinics in Geriatric Medicine*, *26*, *149–162*. doi:10.1016/j.cger.2009.11.004.

Although much research currently examines predictors of individuals' resilience, health outcomes of resilience, and interventions to support and improve resilient responses to life challenges, we rarely hear about persons living with dementia as having a "bounce back" capacity. Because gerontology's focus on "successful aging" seems to exclude these persons, Harris (2008) has argued that we need to start paying attention to resilience among elders with dementia. They "bounce back" by employing various coping strategies, showing positive emotions, accepting change, and acting in ways that reveal a sense of life meaning (McFadden et al. 2001).

Creative engagement, through story-telling, painting, song-writing, dance, and other art forms, enables people with dementia to communicate their resilience to others. According to a leading researcher on resilience, creative activities reveal the "capacity for positive emotions and generative activities" (Bonnano 2005, p. 136) following loss or trauma.

Individuals living with dementia know plenty about loss and the trauma of forgetfulness, and yet if they live within a supportive community designed to meet their needs appropriately, they can thrive and flourish. When given the opportunity to create something, they get the satisfaction of working toward a goal and feeling a sense of purpose and pride in their achievement. These are characteristics of persons who are creative (Lindauer 2003) and resilient (Connor and Davidson 2003) – persons like Leo and Mrs. G. Leo lives with advanced dementia and Mrs. G. is in the early stages of memory loss. They show us how to draw lines of connection among research and scholarship on late life resilience, creativity, and the significance of social acceptance and support for persons living with dementia.

The Interesting Cases of Leo and Mrs. G

Leo has lived in a county-run nursing home for several years. His dementia has progressed to the point where he utters very few words. Nevertheless, Leo was selected to participate in an artist-led program that enabled a group of about ten residents to make and paint clay pots, take photographs using Polaroid cameras, paint on canvas, draw with colored pencils, assemble a mosaic, and do the preparatory work that resulted in brightly colored fused glass objects. Each time the group met, someone pushed Leo's wheelchair into the room and up to the table holding the art. Leo soon showed his capacity for concentration and meticulous attention to detail. For example, when working with mosaics, he used a small paintbrush to swab on the glue, and then turned it around so he could use the other end to push the mosaic piece into position. Occasionally, he looked up from his work and smiled at the group. About halfway through the 10-week program, the person in charge of activities at the facility commented that Leo was starting to look forward to the arts group. She inferred this from his facial expressions when she said things such as "tomorrow the arts group meets." Also around this time, Leo's wife died. He missed a couple of arts group gatherings and the staff respected his wishes not to participate. He returned on the day of the glass fusing project, and again showed intense concentration, carefully working with his pieces of glass.

Is Leo resilient? We can only know by observing him, for he is not capable of completing a survey or responding to interview question such as the ones Harris posed in her research on resilience in persons with dementia. Harris's (2008) assertion that the notion of "successful aging" needs to be replaced with a focus on resilience was based on interviews with persons living with the early stages of memory loss, people who could answer her questions like Mrs. G. did:

I'm very productive at the moment, so I am going with it. I do [silk] flower floral arrangements for weddings. I am very creative. With silk flowers, I can always have them on hand and keep a prototype. I keep it so I can refer to it because I won't be able to remember how I did that. These things come from my mind. It's my creation. (p. 56)

Leo and Mrs. G. exercised control through their creative activities – activities that also strengthened their connections to others. Leo knew just where he wanted to place the mosaic and glass pieces; Mrs. G. had control over the silk flower arrangements. Leo's creativity occurred in a group setting, and required the support and guidance of an artist, volunteers, and staff members. At the end of each session, each person showed what had been made and received applause and cheers from the others. Mrs. G. made her flower arrangements for the happy occasions of weddings and presumably she got satisfaction from their appreciation of her work.

Like any person who lives to old age, Leo and Mrs. G. have known their share of loss and trauma. Both have been diagnosed with dementia, and it is likely that their brains and vascular systems show the cumulative effects of meeting the challenges of human life. Does this mean they failed at aging, that instead of "aging well" they are "aging ill"? After all, Leo needs considerable assistance from others for most activities of daily life. As reported by, Mrs. G. has "very bad asthma and emphysema and a few years earlier had cancer surgery" (p. 3). She was forced to retire early because of the dementia diagnosis and she gets little help from her sons and 12 siblings. On the other hand, Leo lives in a progressive facility dedicated to supporting personhood in all residents and Mrs. G. has a loving husband, a support network in her community, and an understanding physician. Within the constraints of their lives, both show resilience. One might even say that within these constraints, they are flourishing and their creative expressions are but one example of the lived-experience of the "paradox of well-being" (Mroczek and Kolarz 1998) we see in so many older persons.

Discussion

What this writer (RER) took away from his co-authors' pieces was this: each of them has a body of experience in how persons with dementia respond to heightened senses evoked by seeing the graceful dancer's leap in *Swan Lake*, hearing the next Pavarotti hit Puccini's high note in *Madama Butterfly*, the pure joy of sitting before Renoir's *Luncheon of the Boating Party* at The Phillips Collection wondering what all those people were saying to each other on that sunny afternoon down the Seine, or being enraptured by a Richard Burton alone on a stage standing behind a lectern

reciting line after line of Shakespeare's prose to a hushed, mesmerized audience. These and other artistic experiences like an Ansel Adams exhibit of his timeless and wonderful photographs of the beauty of nature are meaningful and important in that his photographic art reminds us of the need to preserve the splendor of wilderness. And when one gazes upon an exhibit of exquisite quilt art designed and hand-made by little known creative persons from rural areas, we are also reminded that art is everywhere and that the old adage, "beauty is in the eye of the beholder," is true.

If only we were able to capture and repeat those visual, auditory, and emotional stimuli to effect the outcomes across all persons with dementia that we see in some. Can the present day technology of fMRI or some future imaging process help us do that by "enjoying" the "art" of seeing one's own the brain light up that, in turn, lessens anxiety and depression and slows the rate of cognitive decline? It is to the neurobiologists and biogerontologists that we leave that question.

Like everything else in the clinician's array of treatment choices, more research needs to be targeted on how one chooses an art form as the independent variable and measures the hypothesized change on the dependent one (Roush et al. 2001). Until that happens, we should continue to expose persons with and without dementia to the wonderful world of the creative arts for their own and our enjoyment. Perhaps other "Sarah's," like the frail elderly lady about whom Hart (1992) wrote will have better times in their latter days. When taught about art and philosophy at the nursing home where she lived in Washington, DC, Sarah, a retired nurse thought to have dementia, "came out of her foggy tunnel." She loved Matisse and attended an exhibition of his works, exclaiming upon having seen the 11-foot high *Large Composition with Masks*, "This has been one of the best days of my life." She died peacefully in her sleep that night. In an interesting sidebar, Matisse painted that magnificent piece in the last year of his 85-year-long life.

This chapter is for the caregivers of all the Mr. Winakur's, Leo's, Mrs. G's, and Sarah's of the world. When we work with them and their countless counterparts across the land, we should document what we do via the arts, always asking questions about what seemed to work and why. And as we all are marching inexorably toward our own old ages, keep in mind Goethe's maxim: "Science and Art belong to the whole World and the barriers of nationality vanish before them."

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