

# Education Life

## Coming Full Circle



Angela Jimenez for The New York Times

**SPRING/WINTER** Montessori has been adapted at assisted-living facilities like Hearthstone at the Esplanade in Manhattan, where Mytris Lief, above, is a resident.

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IN a colorfully decorated room on the Upper West Side of Manhattan, a half-dozen bright minds were engaged in a Montessori exercise called category-sorting. The categories were “dessert” and “non-dessert.” Pheona Yaw, who led the exercise, held up yellow cards with words on them.

“Carrots,” she said, reading from the first rectangular card. “Dessert or non-dessert?”

That was an easy one, the group agreed. “Not dessert,” they said. Ms. Yaw placed the card over a rectangular outline on the non-dessert side of the board.

She moved on.

“Strawberry shortcake,” she said, holding up the next card. “Dessert?”

“No, that’s not a dessert at all,” said Holly Kromer-Sharpe, decisively. Others disagreed. Ms. Yaw put the card aside and moved on to pizza, on which there was agreement: pizza was not a dessert. Then she returned to strawberry shortcake.



“Dessert or non-dessert?” she asked.

Holly Kromer-Sharpe again spoke first. “I think that’s a dessert, yeah,” she said, just as firmly, as if the question itself were an affront. “What’re you trying to do, anyway?”



In a typical Montessori classroom, teachers use category-sorting exercises to help young students see patterns and connections. But the participants in this group were mostly in their 80s and on the other side of the cognitive development curve. They are residents at an assisted-living facility for people with dementia called Hearthstone at the Esplanade, which has six other homes in New York State and Massachusetts. Since July the residents have participated in a full-time program of Montessori-based activities designed for people with memory deficiencies.



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**MAKING CONNECTIONS** Exercises to sharpen muscle memory include flower arranging (Nancy Jackson gets help from an aide, Gladys Otiwaa); matching colored balls to cups; and identifying categories (Holly Kromer-Sharpe is quizzed with flash cards).

The program was created by Cameron J. Camp, an experimental psychologist who has applied childhood education principles to people often considered past the point of teaching. Through the Myers Research Institute in Beachwood, Ohio, where Dr. Camp developed training seminars and materials, dozens of nursing facilities around the country now use his curriculum.

A common misconception about people with dementia, Dr. Camp said, is that they no longer learn. But they do: residents learn to find their dining room table, for example, well after the onset of Alzheimer’s disease. And because they no longer have the higher brain function they had as adults, he reasoned, they are well suited to Montessori.

Developed by Maria Montessori in Rome in the early 20th century, the Montessori method holds that young children learn best when they direct their own learning, with teachers providing tools that engage all their senses. Children learn through their hands and muscle memory, as well as through their eyes and brains. A child might

learn the letter C by rubbing her hand over a sandpaper cutout in the letter's shape while sounding out the letter, using sight, sound and touch together.

Dr. Camp began to consider a similar approach for people with dementia in 1983, while working with the elderly at an adult day center in New Orleans just as his 3-year-old son entered a Montessori school. His wife was a Montessori preschool teacher.

“I started to see all these things that would translate from one to the other,” Dr. Camp said.

At the Montessori school, a boy had trouble focusing on his lessons. At the adult center, a woman with Alzheimer's who had just regained her vision through cataract surgery became terrified when anyone moved her wheelchair. Dr. Camp saw a parallel. Both were overstimulated by background sensations — the boy because he could not shut out peripheral signals to focus on the task at hand; the woman because her surgery enabled her to see all the boundaries and edges around her, and she thought she was in danger of crashing or falling.

The solutions were similar. The teacher had the boy do the exercise with his eyes closed; the woman held her eyeglasses whenever she was moved. Both improved, and eventually learned to make do without the intermediary step.

As many as 5.2 million people in the United States have Alzheimer's, including about one in eight people over age 65, according to the Alzheimer's Association. This number will probably grow as baby boomers pass through their 60s and 70s. No drugs have been proven to do more than slow the disease's progression. As the Alzheimer's population grows, nursing homes and geriatricians are working to rethink the possibilities of life with the disease.

The Montessori-based programs for the elderly build on the work of Barry Reisberg, a New York psychiatrist who coined the term “retrogenesis” to describe the way the mind's deterioration reflects its development: the first faculties to develop are the last to go. For instance, children around age 2 begin to understand their image in a mirror as a reflection of themselves, rather than a separate person; people in advanced stages of Alzheimer's lose that distinction and are often frightened by mirrors, especially in bathrooms, where they think a stranger is watching them. Understanding this helps gerontologists recognize the problem not as random disorientation but as a predictable condition.

“We don’t say they’re crazy, we say this is where they are in the sequence,” Dr. Camp said. “The fix is that you put a window shade on the mirror. But you only come up with the fix if you say, ‘Why is this happening?’ ”

Similarly, just as physical skills and habits develop early, people with severe memory loss can often sing, read, manipulate a screwdriver or play a musical instrument even when they have difficulty maintaining a conversation. Montessori techniques build on these skills and habits, with the goal of improving quality of life and independence by using cognitive strengths to neutralize weaknesses, making frequent use of repetition to create unconscious learning.

As Dr. Camp talked, Loretta Dranoff, 86, approached. She brought this reporter and a photographer a brightly wrapped welcome basket and a brief written greeting, as if we were new residents. Ms. Dranoff is part of the WW Committee. The welcome wagon committee decides what should go in the basket — potato chips, granola bars, tissues, a few jokes — and writes the greeting.

After reciting the script, Ms. Dranoff asked the visitors their names and commented that the photographer’s, Angela, was like an angel. A minute later she asked again and made the same comment. And again.

With each greeting, Ms. Dranoff seemed pleased to make the connection between the name Angela and the word “angel.”

Ms. Dranoff said that when she was younger, she and her husband, Murray, organized a competition for two-person piano teams and performed around the country. Asked whether she still played, she did not respond directly. “When my husband was alive, we played together,” she said in response to several repetitions of the question. Later in the day, at a group exercise called Brain Teasers and Reminiscences, though, she played the piano, as she does most days.

The key to working with someone like Ms. Dranoff, Dr. Camp said, is to build on the skills she has retained — writing, reading, playing the piano — rather than letting her deficits limit her life. “We start by saying that a person with dementia is a normal person with memory deficits,” he said. “Then you can circumvent the deficits by using the strengths. That’s how you create what Montessori called ‘normalized environments,’ meaning environments that challenge you but let you succeed.”

He added, “When a person is in a normalized environment and engaged in meaningful activity, then you do not see problematic behavior. A person cannot be wandering if

they're teaching a little boy to use a screwdriver or learning about the history of frozen pizza.”

Ms. Dranoff, he said, “may not remember that she helped write the script, but she can remember the feeling of accomplishment. That feeling becomes associated with this place, and it begins to feel like home. When a person is presenting a welcome basket, they're at the top of their game. They're not wanting to call home or sleeping. You try to create as many of these moments as possible.”

Dr. Camp recalled a woman who could not remember her daughter's visits. “Twenty minutes after the daughter left, the woman would be upset and say, ‘When is my daughter going to visit?’”

Instead of simply telling the woman her daughter had just visited, staff members placed a visitor's log by her bed, and the daughter wrote in it whenever she visited: a few words about the visit, a message of love and a date when she would visit again. Whenever the woman became upset about her daughter, aides had her walk to her room and read the book. Through repetition, she learned to associate going to that place with feeling better, even if she could not remember why. After a while, her muscles remembered that she had found relief there in the past. “It's what Montessori called muscle memory,” Dr. Camp said. “Montessori was a genius at using muscle memory or procedural memory. That's how you teach 3-year-olds to add four-digit numbers.”

In another room, a group with more severe cognitive difficulties tried simple exercises. Some put together puzzles; others arranged artificial flowers. The tasks were difficult, and some of the women — they were all women — quit after a few minutes.

One woman patiently placed five flowers in a pot, an exercise that took 20 to 25 minutes. She smiled at her work, quietly singing “Singin' in the Rain” as an aide massaged her hands. Dr. Camp hopes that because the motions are like those used for eating, she will become more independent feeding herself as she develops pleasurable associations with the movements.

Dr. Camp is trying to develop more applications for Montessori methods, especially for those not in nursing homes. Most people with Alzheimer's live at home. One application involves helping people with AIDS and dementia remember to take their medications; another involves teaching people with osteoporosis and Alzheimer's a safer way to sit without falling. Both work by creating muscle memory — in the case of those with osteoporosis, teaching them to say, “I've got to see if the arms are back

there” each time they begin to sit, and to reach back for the chair’s arms to guide them down.

Even in the nursing-home setting, the lessons are not without speed bumps. At the Brain Teasers and Reminiscences session, a woman left in a huff. “I was in kindergarten once years ago,” she said. “I’m not interested in doing it again. It’s a big bore here.”

As she spoke, it became clear she was upset less at the exercise than at being placed in the home by her daughter, against her will. “There are some very nice people here,” she said, “but it’s a terrible thing when you’re put out of one place and put in another.

“My daughter said, ‘You’re very hard to be with.’ I said, ‘I know, so were you when you were a girl.’”

*John Leland is a national correspondent for The Times who writes frequently on the elderly.*