

In Appreciation: Eleanor Gibson



Eleanor Gibson (1910-2002)

Eleanor "Jackie" Gibson died December 30, 2002 at the age of 92. Gibson was an experimental psychologist who made many significant contributions to the fields of perception, infant development, and reading. Gibson received her PhD in experimental psychology from Yale University in 1938. She worked with her husband, James G. Gibson in the Department of Psychology at Cornell University from 1949 to her retirement in 1979. She worked first as a researcher in the department from 1949 to 1966, when she was appointed professor. She was the first woman to hold an endowed professorship at Cornell, the Susan Linn Sage Professor of Psychology

Gibson wrote many books, with her most wellknown books being Principles of Perceptual Learning and Development (1969) and The Psychology of Reading which she wrote with Harry T. Levin (1978). She was elected to the National Academy of Sciences and was awarded a National Medal of Science in 1992 by the President George H. W. Bush. In 1993, Gibson delivered the Keynote Address at the American Psychological Society Annual Convention in Chicago. She was very active in her retirement and continued to write, research and advise her protégés, even into her 90s.

Thinking about Eleanor Gibson

Jackie's career was long and outstanding. It began in the 1930s when to be a woman scientist was an arduous task. Beginning in graduate school with a Yale professor's abrupt refusal to allow a woman in his lab, to years of being refused a regularly faculty position at Cornell, Jackie's career progress was blocked like that of many women of her time. But though the outward trappings of being on the regular faculty and having tenure were denied, Jackie's research flourished. She published landmark journal articles and the book on reading during this period. Then finally in the 1970s when she was over 60, Cornell finally recognized the gem they had and she was appointed a professor. In the next two decades Jackie came into her own, galvanizing the field of perceptual development with ingenious experiments on infants and exciting applications of ecological theory to developmental questions. After Jackie retired and moved to Middlebury, Vermont in 1987, I made many visits to see her. She was always curious about what people were working on, what were the questions being asked, and what were the most interesting studies coming out. We rarely talked about her accomplishments because she was an extremely modest person in that regard.

During a visit a couple of years ago Jackie and I had an exchange which I think characterized her attitude toward life, toward work, toward self-assessment. She was 90 years old at the time. The year before she had published a wonderful book on perceptual development, co-authored with Anne Pick. In the year of the visit, 2001, an autobiography had just come out. At one point she complained to me of having nothing to do, nothing to write. I said that if I were her, I would rest on my laurels. Jackie replied, "Oh, Rachel — you would never do that!" as though this were an unthinkable option for anyone. It reminded me of something Duke Ellington said in response to an interviewer's question about which of his compositions was the greatest. Ellington replied "The one I'm going to write tomorrow." And so it was with Jackie. She always looked forward, and she remained vitally interested in science and in people until the very end of her life. During the same visit described above, I left her with a preprint of a manuscript recently submitted to a journal. Several days later Jackie called me. After duly complimenting the manuscript in general, she said she didn't like the ending. "You let the reader down," she said, "because you never clearly state the bottom line. What do you think is the big conclusion from the study? You don't really say." After we hung up I went back to the manuscript and Jackie was absolutely correct in her assessment. The ending was limp and vague. I rewrote the last two pages on her advice. She was teaching, thinking, and caring to the very end. I did not meet Jackie personally until around 1980, but during the last two decades she has been a cherished friend and mentor. Jackie was a model of what a scientist should be and what a human being should be.

-Rachel Keen

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Life After the Lab

We were Jackie's graduate students at the end of her career after she had closed her famous lab at Cornell. Jackie was 77 years old when she became our mentor, an age when most academics are comfortably retired. The 55-year difference between her age and ours was an enormous generation gap that would normally preclude intellectual collaboration and personal friendship. Jackie mentored us through our graduate training, our first publications, our jobs, and tenure. She advised us through personal relationships (most men, of course, could never measure up), growing families (proper babies, of course, are asleep by 7:30), and geographical choices (NC and NYC may be ok for visiting but are, in Jackie's world view, unfit for residence). We, in turn, provided Jackie with stimulation by giving her intellectual and personal problems to worry about.

In the late 1980s, Jackie became interested in the relationship between developing motor skills and perceptual learning. During this intellectual period, Dick Neisser invited Jackie to Emory University to manage his graduate students (us) while he was away on sabbatical. For our first research project, we converted Dick's office into a laboratory playground for toddlers: Furniture pushed against the walls, a climbing/sliding apparatus in the center of the room, and the floor padded with gym mats. To our surprise, all the babies climbed up but few came down. This finding received Jackie's highest praise: "Very interesting", and it presented a puzzle that continues to guide our research.

After Dick returned to his office, our operation was moved to a nearby Baptist church where there was sufficient room for new, adjustable sloping walkways and a preferential looking booth. Although parents had to carry their infants up three flights of stairs past crucifix scenes and church suppers, it was the one time that parking was not a problem. Research in the church lab yielded several interesting findings. As Jackie predicted, emerging motor skills pave the way for perceptual learning via new forms of exploration. In the

object manipulation studies, babies with advanced manual skills matched the sights and sounds of actions with objects, but infants of the same age with limited manual skills explored indiscriminately. But, infants require weeks of experience before they can use information gained via exploration to guide actions adaptively. In the locomotion studies, experienced crawling and walking infants matched their responses to the limits of their abilities, but novices plunged headfirst over the brink of impossibly steep slopes.

We pursued subsequent questions about perceptual learning, exploration, and development, with Jackie always supporting us and raising the bar for excellence. Although we knew that Jackie loved us and was proud of us, she was never effusive with praise. In Jackie's grading scale, "Terrific" refers to the top 1 percent, "Just fine" to the top 20 percent, and "Fine" to the top 50 percent. Recently, we sent Jackie a preprint to read. When Karen arrived home, her answering machine was blinking madly. In the first message, Jackie said, "What a terrific article, so well done". We had made it into the top 1 percent at last! However, after ruminating for 45 minutes, Jackie's next message said, "Your paper is just fine, but there's a few things I wanted to discuss...". And 30 minutes later, "Karen, dear, your paper with Marion is fine but you must fix it before you send it out". Karen erased the two later messages

To our mutual benefit, we enjoyed frequent visits with Jackie at her home with her family and at our various labs. Our fondest memories of time with Jackie are the annual pilgrimages to Fripp Island, SC. Each spring, the three of us met at Jackie's summer house where we wrote papers together in the morning, walked along the beach mid-day, and drank vodka while arguing about perception of affordances at night. Jackie continues to be a guiding intellectual force in our lives. She was a dear and irreplaceable friend. We miss

-Karen Adolph and Marion Eppler

Gibson Was a Gifted Mentor

I came to Cornell in 1975, a place I had never heard of until I applied to graduate school. Within the first month, Eleanor Gibson - Jackie - provided me an opportunity to become involved in hands-on research. I helped an advanced student examine infants' phoneme discrimination using the nonnutritive sucking paradigm. I learned quickly about the difficulties and joys of conducting research with infants. From that moment on, I was involved in research. I was part of a team of graduate researchers. We conducted several studies that investigated 3-month-olds' abilities to detect and generalize invariant information for the substance of objects. These were among the first studies to use visual habituation to investigate infants' discrimination and recognition of features of objects across ' exemplars, and it was an exciting time. We were brand-new graduate students, but Jackie gave us full credit and introduced us at meetings as her "young colleagues."

Jackie's lab was busy. She had a grant that funded research on infants' perception of dynamic events. Liz Spelke, Nancy Vanderveer, Jane Megaw-Nyce, Cynthia Owsley, Debra Clark, Lorraine Bahrick, Kate Loveland, and I worked together and also conducted our own research. We acted as observers for each other and met weekly with Jackie. At times it was daunting. You'd be discussing an idea or problem and she'd be looking out the window and you'd think, "Is she even listening to me?" But when you came in the next day, there would be a note and a handful of articles that "might be useful." Last year I sent her a draft I was working on. A week later, it was returned along with three pages of notes. A few days after that, a postcard arrived

with more references and the request that I continue to send her work, as she was becoming bored in her health-imposed isolation.

A particular incident at Cornell illustrates Jackie's generosity, flexibility, and willingness to treat graduate students as independent scholars. Lorraine Bahrick and I wanted to study infants' selective attention. We presented our idea to Jackie. She didn't like it! She wasn't sure just what the results would tell us or whether we would be adding to what was already known. Ulric Neisser, Lorraine's supervisor, was more interested, so we decided to go ahead. We had Jackie's full support: We tested the infants in Jackie's lab, used her equipment and supplies, and enjoyed the help of her research assistants. Jackie ended up proposing an important control experiment as well. She had the grace, the integrity, and the generosity to enable us to go our own way, and after it was completed, she referred to the study in her own publications.

There are many gifted mentors, but Jackie is especially notable for the sheer number of students and colleagues she influenced. Jackie was an outstanding model: Her work ethic, her determination, her raw intellect, and her dedication to the growth and development of students were exceptional. I try to make a point of introducing my students at meetings, because Jackie always did. At the International Conference on Infant Studies (1998), I introduced three students to Jackie, and she sat and chatted with them in the Botanical Garden. They were thrilled and they were especially honored and touched that she treated them as young colleagues. Such was her way.

- Arlene Walker-Andrews