



Hidden Social Dimensions In Science



Arath Salazar & Ronald E. Doel

Introduction

Most scientists in the United States during the Cold War period were married—and married male scientists, particularly in the time from the end of World War II through the 1960s, were the socially accepted norm. There were few female scientists in the natural sciences, and researchers who strayed outside common societal expectations sometimes experienced discrimination. However, certain prominent scientists did not fit these expectations.

Methods

- Historical collections highlighting prominent U.S. scientists (at the General Electric Archives, and the U.S. Information Agency collection at the National Archives), were carefully examined.
- Biographical entries about these scientists in Cattell's *American Men and Women of Science* were scrutinized to see which ones lacked a spouse or children.
- Additional biographical information was sought for these individuals.

References

Day, Deborah. (2002). "Women at Scripps Institution of Oceanography, 1940-1965." La Jolla, CA: Scripps Institution of Oceanography Archives (12 pp).

Keller, E. F. (2005). "McClintock, Barbara." In C. Mitcham (Ed.), *Encyclopedia of Science, Technology, and Ethics*, Vol. 3 (Detroit: Thompson-Gale), 1179-1180.

Merrill, C., & Carlton, H. (1995). "Herbert Spencer Gasser." *Biographical Memoirs of the National Academy of Sciences*, Vol. 67 (Washington, DC, NAS Press), 147-177.

Morabito, Andrea. 2016. "The sad twilight of Koko the gorilla and her "mother." *The New York Post*, 28 July.

Rossiter, Margaret. *Women Scientists in America: Struggles and Strategies to 1940*. Baltimore: The Johns Hopkins University Press, 1982.

Shah, Esha. 2016. "A Tale of Two Biographies: The Myth and Truth of Barbara McClintock." *History and Philosophy of the Life Sciences* 38, 18 (12 pp).

Stanley, Autumn. 2004. "Blodgett, Katharine Burr." In Susan Ware and Stacy Lorraine Braukman, eds., *Notable American Women: A Biographical Dictionary Completing the Twentieth Century*. (Cambridge: Belknap Press of the Harvard University Press), 66-67.



Figure A (above): Dr. Katharine B. Blodgett
Dr. Blodgett (1898-1979) was an American chemist and physicist who invented nonreflective glass while working for General Electric. Published accounts (as well as this General Electric file photograph) make clear she was dedicated to her work. Existing biographical accounts provide relatively few details about her personal life, but record that she did not marry. Historian and writer Autumn Stanley noted that Blodgett had shared her home with two different women at different times while working for General Electric.

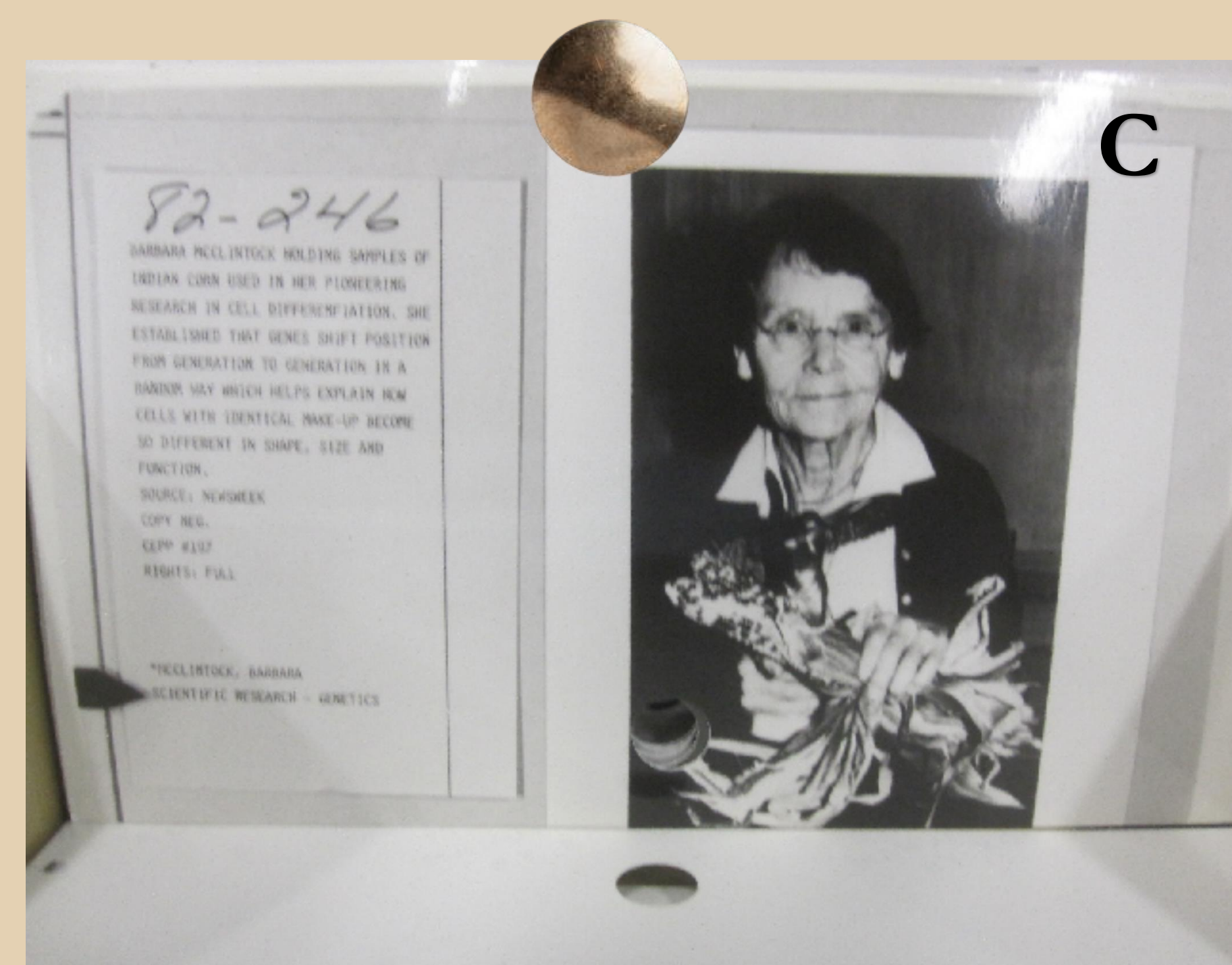


Figure D (right): Dr. Francine Patterson
Dr. Patterson (born 1947) is an American animal psychologist. She is best known for teaching a modified version of American Sign Language (ASL), which she termed Gorilla Sign Language, to the acclaimed gorilla named Koko (pictured with her in this USIA photo). Patterson could be considered obsessed with her devotion to Koko: as Morabito (2016) notes, "Nearly 40 years later, Patterson's life exclusively revolves around gorillas." Patterson once mentioned that she considered having children and getting married; however, as of now, she has not married.

Figure B (below): Dr. Herbert S. Gasser
Dr. Gasser (1888-1963) was an American physiologist and Nobel Prize winner for his work in action potentials. The caption for this US Information Agency image notes that Gasser was a Nobel Laureate and then served as the director of the Rockefeller Institute. As his colleagues Merrill and Carlton (1995) observed, Gasser was well-liked among his peers and was a striking figure; he also had a hormonal deficiency that left him with a high-pitched voice. While Gasser never married, he did have an enduring friendship with a junior researcher, Helen Graham, with whom he served as a mentor figure.

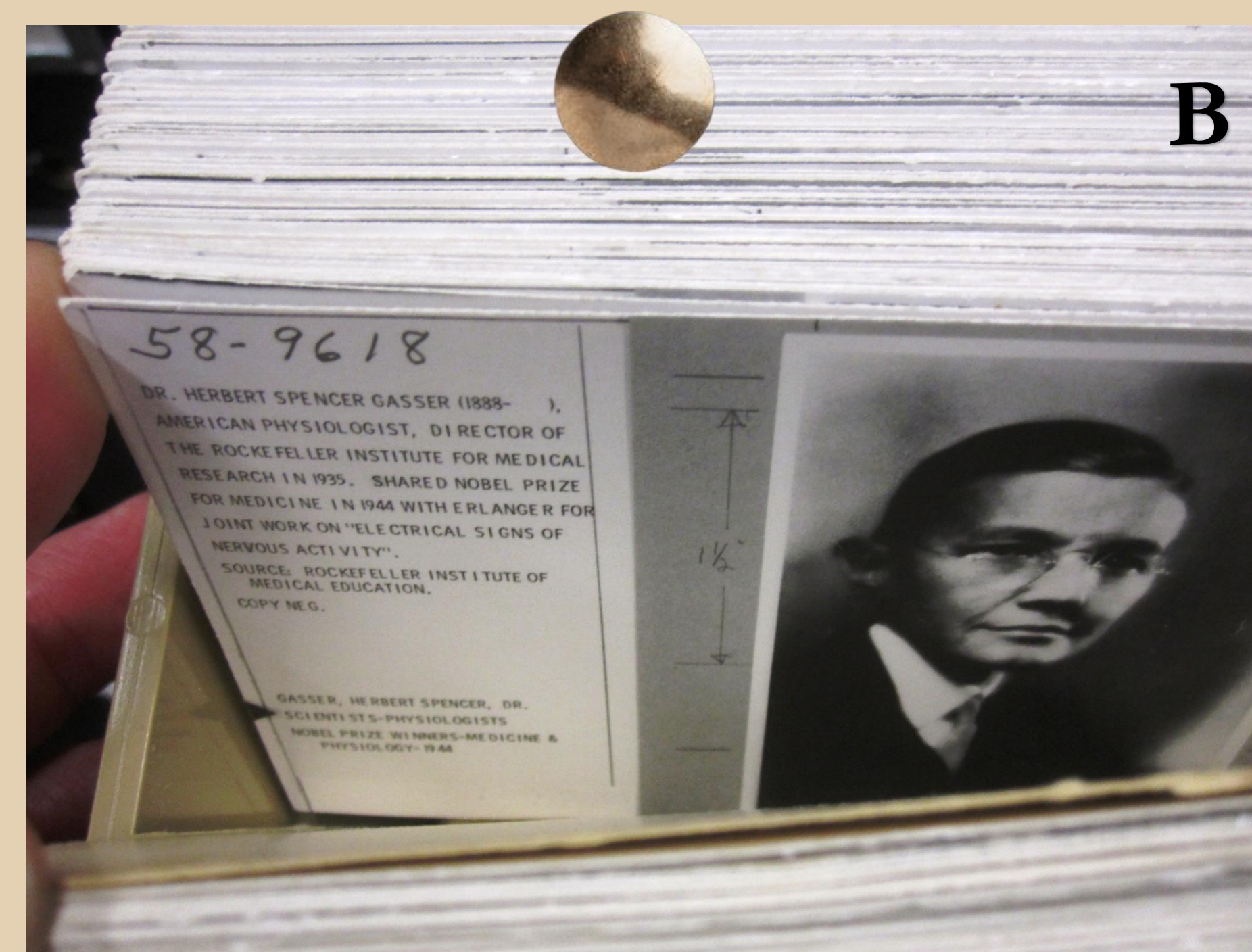
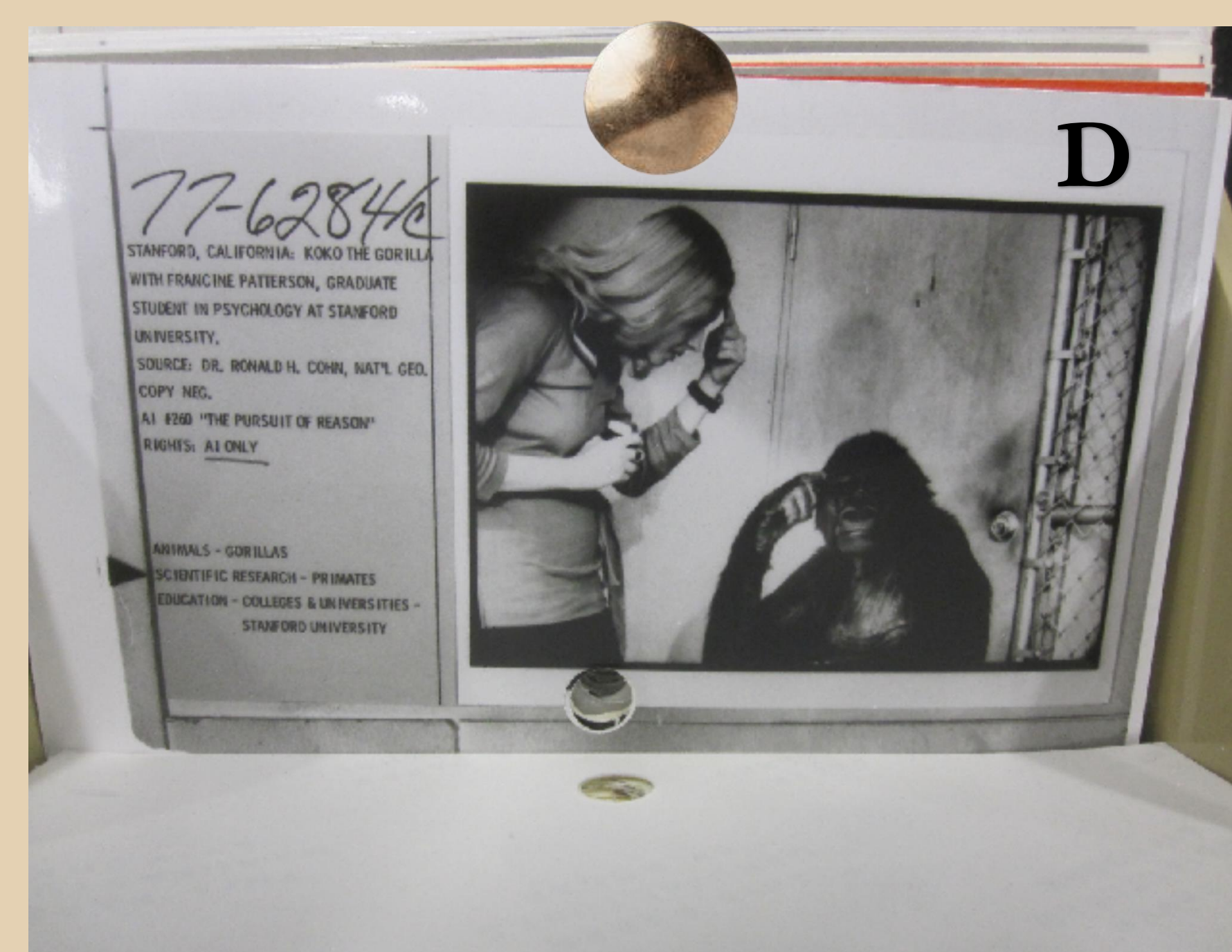


Figure C (left): Dr. Barbara McClintock
Dr. McClintock (1902-1992) was an American cytogeneticist and Nobel Prize winner for her discovery of mobile genetic elements (MEGs) within maize (corn). This US Information Agency image depicted McClintock holding maize against a blank backdrop. As Keller (2005) describes, McClintock was dedicated to her work; many considered her a heroine as the first female to be the sole recipient of a Nobel Prize (1983) and as a pioneering biologist. Her great achievements biology are well known within the scientific community. Scholars who have focused on her life and career, including Shah (2016) found that she "showed a remarkable 'capacity to be alone.'"(5 of 12) She never married.



Results

From examining photos within archival collections, followed by research into individual scientists, it is clear that not all prominent researchers fit the expectation of being male—and married—during the Cold War era. Successive volumes of *American Men & Women of Science* revealed personal self-reported data on all working scientists at the time, and provided a springboard for further research about a handful of well-known researchers without spouses and or children. While many scientists, especially women scientists, were largely "invisible," these individuals were prominent figures as evidenced by publicity given to them.

Discussion

Women were particularly well-represented in the biological sciences in America through the Cold War period, so it is perhaps not a surprise that two of the four never-married researchers highlighted here worked in this field. The social climate for families (as well as for prominent individuals, including scientists) drastically changed over the next few decades. The importance of this kind of research is that it can also help us identify a wider range of minorities within academia and other respected positions of power—including racial minorities and queer individuals (which embraces a vast spectrum). These individuals often faced strong social opposition and political prosecution amid the Cold War. Appreciating the diversity of scientists active in the past can help promote positive change and acceptance for future generations.

Acknowledgements

Special thanks to Dr. Doel for allowing me to conduct this form of research under him. Additionally, thank you towards FSU and the CRE for allowing me to conduct undergraduate research at such an early portion of my academic career.