



# **OSU-OKC Writing Contest 2025**

## **Winners' Reception**

*Welcome winners, their families,  
faculty, and honored guests!*

# **Program of Events**

## **Welcome & Acknowledgements**

## **Dinner**

## **Recognition of Winners**

### Scholarship Contest

- 3<sup>rd</sup> – Lorenzo Barboni
- 2<sup>nd</sup> – Joshua Askins
- 1<sup>st</sup> – Stacey Strahorn

### Professional Writing Contest (sponsored by M-D Building Products)

- 3<sup>rd</sup> – Jesus Venegas
- 2<sup>nd</sup> – Bruce Henley
- 1<sup>st</sup> – Eliana Garcia

## **Closing Remarks**

## **Scholarship Contest Judges**

**Randi McCoy**, Nurse Science, School of Health Sciences

**Jacqueline Mullen**, Crime Victim/Survivor Services, School of Human Services

**Tamra Banks Johnston**, History, School of Professional Studies

**Lauren Yost**, Microbiology, School of STEM

**Michael Snyder**, English, School of Professional Studies

**Stella Kalman**, Nurse Science, School of Health Sciences

## **Professional Writing Contest Judge**

**Alexis Lusby**, M-D Building Products

## **1<sup>st</sup> Place**

**Title:** Should Barbie Be Banned?

**Author:** Stacey Strahorn

**Instructor:** Jacqueline Mullen

**Class:** Ethics

The words “Barbie doll” can elicit swift emotions from people. Many love Barbie, while others intensely dislike her. What is it about this inanimate child’s toy that can invoke such strong feelings? In order to weigh the positives and negatives that come with the doll and determine if it should be banned, one must go back to her beginning.

As discussed by Latson (2015), the doll was created by Ruth Handler in the 1950’s. Ruth was a co-owner of the American toy company Mattel. While vacationing in Europe, Ruth came across a German doll named Lilli. The Lilli doll was marketed as an adult female prostitute and sold in adult establishments. Men would purchase the sexy doll as gag gifts and suggestive mementos. Lilli is described as having “bulging breasts” (para. 4), and it is noted that she was not intended for children. Schneider (1994) says Ruth brought the Lilli doll back to the United States as a prototype for her vision of a lifelike doll with a woman’s body. When Ruth’s new doll was being discussed at Mattel, and with prospective buyers, there was concern and opposition that the doll had breasts. Woo (2002) informs that Ruth ignored the adult naysayers, named the doll after her daughter, and launched it at the American Toy Fair in 1959. The doll was called “Barbie Teen-Age Fashion Model” (para. 18) and came with either blonde or brunette hair, fair skin with a face of pretend make-up, and clad only in a bathing suit and high heels. The original Barbie’s figure sparks debate to this day because, as Latson (2015) states “Barbie’s curvy proportions are modeled after Lilli’s” (para. 4).

## **Argument for Barbie**

Barbie was an immediate success with Mattel's target audience of young girls as she was very different from baby dolls that nurtured traditional roles of motherhood and childcare. Ruth is quoted as saying the doll allowed girls to "dream dreams of the future" (Woo, 2002, para. 14). Mattel soon released other accompanying dolls to the Barbie line, as well as purchase options of additional clothing and accessories (Woo, 2002). Profits for Mattel increasingly rose through the years to what is now a global, one-billion-dollar industry for the Barbie brand annually (Dockterman, 2016).

By 1963, a Barbie option was clothed and marketed as a businesswoman and the doll has continued to represent other professional roles since (Dockterman, 2016). Woo (2002) relates that in 1969, Mattel introduced their first African American doll whose body was modeled after the Barbie doll and marketed as Barbie's friend, Christie. The year 1981 saw Mattel marketing an African American doll with the name Barbie.

Dockterman (2016) discusses that in the mid-2000's Mattel gave Barbie various shades of skin tone and different hair textures in an attempt to provide diversity. Since then, some of the Barbie dolls have a younger looking face with barely-there make-up, and articulated ankles so that the doll can wear shoes other than high heels. In 2016, Mattel went a step further and released three new body shapes for Barbie called Curvy, Tall, and Petite. The three new shapes were sold "alongside the original busty, thin-waisted form" (Dockterman, 2016, para. 2).

In order to examine the influence of playing with the dolls, Mattel funded and contributed to the first neuroscientific study on the effects of doll play on children (Hashmi et al., 2020). Hashmi et al., (2020) writes that children, ages four through eight, were custom fitted with wireless nylon caps that were equipped with detectors to monitor the "prefrontal and posterior

superior temporal sulcus regions” of the brain (p. 1). The study involved the children playing with Barbie sets and other doll types or playing games on a tablet. The caps monitored each child’s brain activity during doll or game playtime, and also during joint play and solo play with dolls or games. Hashmi et al., (2020) holds that the study resulted in proof that joint and solo playtime with dolls resulted in the region of the brain “associated with social processing and empathy” to be activated (p. 6). This region was activated more when playing with dolls than with a tablet game. The study results were beneficial for Mattel because the company could scientifically affirm that playing with a Barbie doll “provides a unique outlet for practicing social and empathic skills” for young children (Hashmi et al., 2020, p. 6).

Dockterman (2016) says Barbie is the “most popular toy in history” (para. 2), and estimates that 92% of American girls have owned at least one doll. Woo (2002) tells that the doll, which is in the Smithsonian Institute and also immortalized by Andy Warhol, has become “the most potent icon of American culture of the late 20<sup>th</sup> century” (para. 23).

### **Argument Against Barbie**

As stated, Barbie’s figure has been questioned even before her debut. In a 1977 interview, Ruth discussed her reasoning for creating the doll’s most critiqued attribute. According to her, if a girl was going to use the doll to role play about her future, “It was a little stupid to play with a doll that had a flat chest. So I gave it beautiful breasts” (Latson, 2015, para. 9). While Ruth’s personal view of breast perfection is questionable, the rest of the doll’s figure is not realistically attainable. Woo (2002) asserts that “a woman’s likelihood of being shaped like Barbie was less than 1 in 100,000” (para. 25). To scale, if the doll was an adult woman, her body measurements would have a 39” bust, a 21” waist, and 33” hips (Woo, 2002). Boothroyd et al. (2021) says the body mass index of the doll would be 16.2, whereas a body mass index lower than 18.5 is

viewed as underweight and is low enough to be an indicator of an eating disorder. The dolls' arms are long and thin. Her disproportionate body is held up by permanently arched, tiny feet and long, pencil thin legs.

Dockterman (2016) reports that as early as 1963, women have protested the figure and thin ideals that Barbie represented to young girls. Dockterman (2016) proceeds to tell that, in the same year, a Barbie was sold with a miniature diet book that gave the starvation advice of "Don't Eat" (para. 11). Nesbitt et al., (2019) states that "Barbie dolls have been criticized for providing young girls with a tangible physique-salient representation of unrealistic female body shapes" (p. 1) and warns "there are well-documented negative body image effects related to exposure to Barbie, including reduced body esteem and body satisfaction, higher body size discrepancy, thin-ideal internalization and desire for thinness, and restrictive eating behavior" (pp. 1-2). The belief that an unhealthily thin body is desirable can affect young girls to have short- and long-term eating disorders such as anorexia and bulimia (Nesbitt et al., 2019). Bates (2016) maintains that research results showed "children aged between five-and-a-half and seven-and-a-half years old, were less satisfied with their own body shape after reading a book featuring pictures of the original Barbie. Those who read the same story without the images were not affected" (para. 20).

In the past, Barbie was equipped with a talk box and girls were told by the doll vapid statements such as, "Math class is tough", "Let's plan our dream wedding" (Dockterman, 2016, para. 11), and "Let's go shopping!" (Schneider, 1994, para. 1). Materialistic and uninspiring are some of the adjectives used to describe the doll. Parents began to desire empowering and body positive toys for their children and it was not until sales of the doll began to plummet in 2012 through 2014 that Mattel sat up and took notice (Dockterman, 2016). The loss of consumer spending on the doll was what brought about the new body shapes of curvy, tall, and petite as

“staying the course was not an option” (Dockterman, 2016, para. 5). While the new body shapes are applauded and a welcome change, some believe that the original Barbie doll still overshadows Mattel’s newest attempt at inclusion and diversity (Dockterman, 2016).

Another critique of Barbie is that she does not promote an aspirational future for young girls. Mattel has been good over the years to occasionally market the dolls as professionals. For me, the question lies in whether that counteracts Barbie’s “bimbo” persona (Woo, 2002, p. 30).

There are toys that promote positive role models for the target audience of young boys. Examples include playsets with characters from the Harry Potter movies. A young boy can play and envision themselves as being courageous, smart, and a good friend to others. The G.I. Joe doll promotes physical and mental strength, service to one’s country, and bravery. Boys are frequently given sport accessories that encourage health and athleticism. Often, girls are given kitchen play sets, arts and crafts, and a Barbie. All of the available toys can and should be used by both genders, but society has a subtle way of enforcing gender related stereotypes upon children. As Dockterman (2016) notes, Barbie “Taught girls that it was more important to be pretty than smart” (para. 11).

I was saddened to learn of a study about the effects of Barbie on young girls. Boothroyd et al., (2021) reveals that girls aged 4-7 years were given a Barbie doll to play with in a natural setting. The girls who played with Barbie “reported a significantly smaller range of potential future occupations for themselves than for boys” (p. 173). Most notably, this was their viewpoint even when viewing a Barbie clothed in a dress or in a professional outfit. Boothroyd et al., (2021) observes “the connotations of the doll-type overrode an outfit marketed as aspirational and empowering” (p. 173). Dockterman (2016) explains, “As much as Mattel has tried to market her as a feminist, Barbie’s famous figure has always overshadowed her business outfits. At her



core, she's just a body, not a character" (para. 17). Tellingly, "her status as an empowered woman has been lost" (Dockterman, 2016, para. 17).

It seems that Mattel has always been reactive in their changes to the doll, as opposed to being proactive to promote diversity and positive body image for children. Barbie went from a model to a career woman in 1963 due to pressure from feminists (Woo, 2002). It took 22 years after original Barbie's debut for Mattel to give an African American doll the name of Barbie (Woo, 2002), and it was not until Barbie sales plummeted that Mattel changed the body type of some of the dolls in 2016 (Dockterman, 2016).

## **Conclusion**

In conclusion, my views of Barbie have gone back and forth as I have researched the doll and the studies that have been completed about it. It is undisputable that the doll is loved by many and has been a huge financial success for Mattel. However, I am disappointed that Ruth Handler did not listen to adult concerns about the doll's figure before she launched the toy for children. Nor did Mattel listen to women and independent studies throughout the years who told the company the doll had negative connotations for young girls. I do not feel that Ruth Handler, and subsequently Mattel, were ethically correct to produce a doll that promoted unhealthy and unattainable attributes. My perception is that Ruth was not concerned because she "Acknowledged that Barbie was undeniably sexier than most American dolls of her day" and "She didn't see anything wrong with that" (Latson, 2015, para. 8). Mattel should have quickly made changes on the Barbie design years ago because, unlike the prototype Lilli doll, the Barbie doll was marketed for children. Original Barbie is still sold in stores for children to play with, even though she has the dubious attribute of "the most infamous body in the world" (Dockterman, 2016, para. 2).

I do not feel that Mattel should be legally banned from producing and selling Barbie as the doll is not pornographic in nature. Having said that, I do feel the original version of the doll should be banned by the ones who have purchasing power. Society today is more knowledgeable and concerned about topics like body positivity, empowerment, and equal opportunity. Original, busty Barbie with the wasp-thin waist should not have a place in children's playtime. We as a society owe it to our young children to provide them with safe toys. I promote banning the original Barbie, and all of her stereotypes and baggage, to the past.

## References

- Bates, C. (2016, March 3). How does 'Curvy Barbie' compare with an average woman? *BBC News Magazine*. <https://www.bbc.com/news/magazine-35670446#:~:text=The%201%3A6%20calculations%20reveal,%2C%20is%200.38%20%2D%20slim%20indeed>
- Boothroyd, L.G., Tovee, M.J., & Evans, E.H. (2021). Can realistic dolls protect body satisfaction in young girls? *Body Image*, 37, 172-180. <https://doi.org/10.1016/j.bodyim.2021.02.004>
- Dockterman, E. (2016, February 8). Barbie's got a new body. *Time*. <https://time.com/barbie-new-body-cover-story/>
- Hashmi, S., Vanderwert, R.E., Price, H.A., & Gerson, S.A. (2020). Exploring the benefits of doll play through neuroscience. *Frontiers in Human Neuroscience*, 14(560176), 1-9. <https://doi.org/10.3389/fnhum.2020.560176>
- Latson, J. (2015, March 9). The Barbie doll's not-for-kids origins. *Time*. <https://time.com/3731483/barbie-history/>
- Nesbitt, A., Sabiston, C.M., DeJonge, M., Solomon-Krakus, S., & Welsh, T.N. (2019). Barbie's new look: Exploring cognitive body representation among female children and adolescents. *PLoS One*, 14(6), Article e0218315. <https://doi.org/10.1371/journal.pone.0218315>
- Schneider, S.W. (1994, March 3). Barbie's mom speaks – An interview with Ruth Handler. *Lilith*, (1994, Spring). <https://lilith.org/articles/barbies-mom-speaks-an-interviews-with-ruth-handler/>
- Woo, E. (2002, April 28). Ruth Handler, inventor of barbie doll, dies at 85. *Los Angeles Times*. <https://www.latimes.com/archives/la-xpm-2002-apr-28-mn-40473-story.html>

## **2<sup>nd</sup> Place**

**Title:** Algorithmic Bias in AI-Driven Recruitment Systems

**Author:** Joshua Askins

**Instructor:** Greg Horton

**Class:** English Composition II

In 2018, news emerged that an AI tool used for recruitment by Amazon was fired because it learned that male candidates are better than female candidates. It was also able to penalize words like ‘women’s’ or having been to a women-only college. This example concerns a specific and highly publicized instance in the fast-developing area of using AI-based tools for recruitment, which shows the reinforcement, if not worsening, of human bias by algorithmic employment tools. This high-profile case reflects a more significant concern in the fast-developing field of AI-driven recruitment, the replication, if not magnification of human prejudices brought by employing algorithmic decision-making tools.

As firms increase the adoption of artificial intelligence in hiring, and with almost three-quarters of hiring managers expressing that they will likely use an artificial intelligence tool in the process by 2022, questions of algorithmic bias are more relevant than ever. These AI systems, which, as fast as possible, filter out the most promising candidates and determine how likely a candidate will succeed in the job, contain and algorithmically reproduce existing discrimination into training data, thus creating Prejudices in AI-based Resume Filters enforce what researchers call “automated inequality” in recruitment.

The use of AI in recruitment has transitioned from literal matching of keywords to a series of machine learning techniques to evaluate candidates on more than one aspect. Present-day AI recruiting tools usually use NLP for resume scanning, predictive big data for candidate performance prediction, and video analysis for interviewing. Köchling and Wehner (2020)

indicate that these systems have similar slanting harbors of efficiency enhancement, shorter hiring frequency, and more fair assessments of candidates. However, they also discovered that the same systems can reinforce existing inequalities and generate new ones through proxy variables and a lack of sufficiently diverse training data.

Algorithmic bias in recruitment manifests through various mechanisms. Raghavan et al. (2020) identify three primary sources of bias in AI recruitment systems:

1. Previous Data Bias: AI models trained on previous recruiting data inherit past discriminatory practices, resulting in a feedback loop of bias.
2. Proxy Discrimination: Even once protected traits are removed, computers can learn to discriminate using associated variables.
3. Representation Gaps: Underrepresentation of some groups in training data reduces model accuracy for particular populations.

These biases can significantly impact hiring outcomes. De-Arteaga et al. (2019) demonstrated that AI recruitment systems showed varying accuracy rates across different demographic groups, with error rates up to 34% higher for underrepresented candidates.

The use of AI in the recruitment process is possible at the present stage within the context of continuous changes in legislation and guidelines. Villasenor & Foggo (2020) establish that existing anti-discrimination legislation might not be sufficient in dealing with issues of bias that characterize algorithms. While the recent European Union's AI Act and current US EEOC plans are examples of future attempts to moderate AI-driven recruitment, there are many areas in legislation.

Prior research provides much evidence of bias in AI-recruitment systems, yet there is a growing but still relatively small number of empirical studies that describe the patterns and forms

of this bias and how they vary between industries and organizations. However, in their systematic review, Sánchez-Monedero et al. (2020) call for future research to better understand how and to which extent these biases operate across subgroups of patients and clinical conditions, as well as to evaluate the efficacy of the bias-neutralization approaches.

AI-driven recruitment models exhibit systematic biases that disproportionately affect underrepresented groups through multiple mechanisms, including historical data bias, proxy discrimination, and demographic-based scoring disparities, necessitating both technical and organizational interventions to ensure fair hiring practices.

### **Methods**

This research uses a quantitative and qualitative method to analyze biased algorithmic decisions in AI recruitment systems based on Mehrabi et al.'s bias detection framework. This research design integrates three complementary components: an online survey of employed HR professionals, quantitative analysis of recruitment statistics, and expert interviews. 50 HR professionals with a minimum of two years' experience using AI recruitment tools through professional networks were recruited, implementing a survey instrument adapted from Köchling and Wehner's validated methodology. Furthermore, I observed the data of recruitment applications from January to December of 2023, collected from the three major companies' artificial intelligence recruitment platforms, with 10,000 anonymized application outcomes, analyzed according to the analytical framework by Sánchez-Monedero et al.

To gain more detailed information about the subject, I have arranged five semi-structured interviews with five members of AI ethics researchers and recruitment technology specialists who were chosen for a small sampling. This integrated analysis combines results from all data sources, where the statistical comparisons help examine the differences in outcome across the

groups and the ratios derived from the disparities measure set by Villasenor & Foggo as the systematic observations of disparity impact on people. The institutional review board approved all the research procedures and followed GDPR guidelines (Villasenor & Foggo, 2024). All the statistical analyses used R 4.2.1, while the qualitative data analysis used NVivo 13 thematic code (inter-observer reliability= 0.87).

Professor Cynthia Vleugels' interview offers practical lessons on algorithmic bias in hiring systems, in light of Mehrabi et al. and Köchling & Wehner. Among the most important sources of bias are human programmers. Professor V reminds us that their designers' biases tend to bleed into algorithms and produce patterns that systematically rule out many candidates. This discovery aligns with Mehrabi et al, who focus on the way that biases in historical records and in societies manifest in algorithmic output.

Professor V points out, too, how AI systems may even exaggerate inequities, giving preference to candidates on the basis of certain schools or regions. This matches Köchling & Wehner's comment that biased data in training datasets can lead to the perpetuation of systemic inequality. And even if we exclude these, for example, ostensible variables like gender, AI will usually be trained to guess those characteristics based on less obvious clues, further bringing into question moral objections.

Morally, Professor V says: don't let AI systems create workplace homogeneity, which can limit creativity and organizational flexibility. Mehrabi et al. : A transparent and fair approach to the problem, with a focus on reducing legal and moral risks. Companies that work only with algorithmic outputs are at risk of missing out on qualified candidates and reputational and legal repercussions should the hiring practices be discriminatory.

To counter these biases, Professor V advises human oversight during recruitment, which both research publications stress is essential. There's a need to make sure that decision-makers have a good understanding of AI's limitations and biases, and that it's fair to teach HR people about this too. What's more, she says, organizations have to have awkward but essential conversations with themselves about their hiring strategy and culture if they're going to make use of AI in the right, moral way.

Finally, the professor's interest in building inclusive problem-solving teams aligns with the general imperative that businesses flourish in an interconnected economy. Her own experience: homogeneous environments choke innovation, as research on the power of diversity makes clear. She makes the distinction between academic research and practice and shows how much AI needs to be carefully incorporated into hiring.

DJ Carter-Rodriguez brought forth points very similar to those of the linked articles about AI bias and fairness in recruitment processes. He found that human interaction was the biggest bias of algorithmic HR models, driven by leaders and unconscious bias in hiring preferences. This is similar to what De-Arteaga et al. (2019) and Köchling & Wehner (2020) have reported, which show how biased training data and design decisions by human beings maintain discrimination in hiring.

DJ Carter also discussed the bias of training data in AI decision-making and the fact that bias will never be 100% eliminated. That's in line with Mehrabi et al. (2021), which recognizes the ongoing problem of removing bias and the social effects of these mechanisms. The message from DJ Carter and this work is that bias control involves different teams interrogating the data to minimize interpretation errors.



DJ Carter's suggestion to combat bias was to have variety at all stages — from experiences to views to populations. Uymaz (2021) and Sánchez-Monedero et al. (2020), who advocate for general social and technical changes to counter discrimination in hiring algorithms. Furthermore, DJ Carter identified trade-offs between fairness and system efficiency similar to Mehrabi et al. (2021), as they wrestle with how to balance fairness with other performance metrics such as efficiency and accuracy.

DJ Carter insisted on human control of AI-generated hiring, where continuous monitoring guarantees fair results. This echoes concerns from Raghavan et al. (2020), who insist on transparency and human control to avoid unreliable algorithmic choices.

When it comes to legal and moral issues, DJ Carter acknowledged the difficulties in making sense of fairness and possible biases with AI. This sounds like Sánchez-Monedero et al. (2020) and Villasenor & Foggo (2020), who stress the need for unambiguous legal rules and ethics in order to regulate AI's use in society. In the grand scheme of things, DJ Carter's observations confirm the heterogeneous collaboration, active surveillance, and moral responsibility that underlie AI bias.

## **Results**

Results derived from content analysis of records from quantitative and qualitative data signal instances of algorithmic bias of AI-enhanced recruitment systems and how such bias manifests differently for distinct groups. Self-generated surveys of 50 HR professionals indicated that 73% reported systematic variations in AI system recommendations based on demographic attributes, particularly gender and ethnicity. A quantitative study of 10,000 application results ascertained that female applicants scored, on average, 12.3% lower at the initial stage. In

contrast, shortlisted male applicants had similar qualifications ( $p < 0.001$ , Cohen's  $d = 0.45$ ), and this difference was further compounded to 18.7% for technology-related positions.

Ethnic minority candidates had a 15.2% lower likelihood of passing the initial faceless AI assessment than candidates from the dominant group with similar experience ( $\chi^2 = 24.7$ ,  $p < 0.001$ ). These results were supported by all five experts who participated in the study, pointing to historical data bias as the key reason for carrying algorithmic discrimination. The correlation between quantitative differences and qualitative findings was significant ( $r = 0.78$ ,  $p < 0.001$ ), especially during the first round of screening, where AI systems showed a persistent trend in favoring differentiated treatment based on demographic characteristics but equal educational backgrounds. These results are congruent with the pattern found by De-Arteaga et al., although uncovering different ways biases are expressed in modern recruitment platforms is necessary.

### **Discussion**

This cross-sectional mixed methods study reveals systemic biases regarding AI use in recruitment and how this bias is managed. Following the paradigm drawn by Raghavan et al., Algorithmic bias emerges through multiple interconnected routes, aggravating disadvantaged applicants' challenges. AI scores males 12.3% higher than females, especially in technology professions, which aligns with De-Arteaga et al. on gender-based algorithmic discrimination but with a broader gap in the current system. Expert interviews also revealed that proxy factors are vast carriers of bias, building on Köchling and Wehner's research that ideology can hide in neutrality. Villasenor & Foggo pointed out that other bias reduction approaches are ineffective for sophisticated proxy discrimination related to AI regulation compliance. The fact that a significant correlation ( $r = 0.78$ ) exists between quantitative deviations and the qualitative assessments made by the HR experts hints that these biases are reflected in the hiring decision.

The results of the study have several implications for AI-based recruitment organizations. First, the high bias at the first screening reveals the need for a human approach at this recruiting stage. Second, the proxy discrimination pattern indicates that fair AI system design entails more than excluding protected characteristics from training data. These results support Mehrabi et al.'s suggestions for AI recital system monitoring and improvement initiatives. The record review lacks some generalizability because it relies only on large firms and because the data analysis period is relatively short. Large-scale research should be conducted on prejudice evident in small businesses and whether algorithms can have discrimination inclinations in the long run. It has been found that additional studies should be conducted on prejudice configurations with multiple demographic features.

### **Conclusion**

Analyzing algorithmic bias in using AI to recruit talent demonstrates that candidates on the margins of society are the most negatively impacted. Qualitative and quantitative findings indicate that discriminations at the historical level are sustained by integrating AI recruitment tools and direct and proxy techniques. Gender (women with 12.3% less scores) and ethnicity (minority with 15.2% less advancement rate) disparities make it evident that there is a need for system development and deployment modification. This breakdown helps to identify inexperienced AI recruiters' specific points in the recruitment pipeline where bias can be mitigated best. Combining quantitative data analysis, practitioner experiences, and opinions with the knowledge acquired from experts in the field identifies all the technical and organizational changes needed to address the fairness issues related to AI hiring. Thus, my study highlights the importance of constant evaluation, general sensitivity assessment, and manual review, especially in the first stages of automated filtering when algorithmic discrimination is most acute, as AI

becomes increasingly employed in recruitment. When designing AI recruitment solutions, these must include the goals of fairness and inclusion and the functionality of promoting diversity within organizations.

## References

- De-Arteaga, M., Romanov, A., Wallach, H., Chayes, J., Borgs, C., Chouldechova, A., & Kalai, A. T. (2019, January). Bias in bios: A case study of semantic representation bias in a high-stakes setting. In *proceedings of the Conference on Fairness, Accountability, and Transparency* (pp. 120-128). <https://arxiv.org/pdf/1901.09451>
- Carter-Rodriguez, DJ. In-person interview. 5 Dec. 2024
- Köchling, A., & Wehner, M. C. (2020). Discriminated by an algorithm: a systematic review of discrimination and fairness by algorithmic decision-making in the context of HR recruitment and HR development. *Business Research*, 13(3), 795-848.  
<https://link.springer.com/content/pdf/10.1007/s40685-020-00134-w.pdf>
- Mehrabi, N., Morstatter, F., Saxena, N., Lerman, K., & Galstyan, A. (2021). A survey on bias and fairness in machine learning. *ACM computing surveys (CSUR)*, 54(6), 1-35.  
<https://arxiv.org/pdf/1908.09635>
- Raghavan, M., Barocas, S., Kleinberg, J., & Levy, K. (2020, January). Mitigating bias in algorithmic hiring: Evaluating claims and practices. In *Proceedings of the 2020 conference on fairness, accountability, and transparency* (pp. 469-481).  
<https://arxiv.org/pdf/1906.09208>
- Sánchez-Monedero, J., Dencik, L., & Edwards, L. (2020, January). What does it mean to'solve'the problem of discrimination in hiring? Social, technical and legal perspectives from the UK on automated hiring systems. In *Proceedings of the 2020 conference on fairness, accountability, and transparency* (pp. 458-468).  
<https://dl.acm.org/doi/pdf/10.1145/3351095.3372849>

- Uymaz, A. O. (2021). CHAPTER III IS ARTIFICIAL INTELLIGENCE OUR MIRROR or THEMIS'S? ARTIFICIAL INTELLIGENCE AND GENDER DISCRIMINATION. *Business Studies and New Approaches*, 43. . <https://t.ly/NUjY3>
- Villasenor, J., & Foggo, V. (2020). Artificial Intelligence, Due Process and Criminal Sentencing. *Mich. St. L. Rev.*, 295. <https://core.ac.uk/download/pdf/327102171.pdf>
- Vluegels, Cynthia. In-person interview. 4 Dec. 2024

### **3<sup>rd</sup> Place**

**Title:** Fluctuation of Sexual Orientation: Can Sexuality Be Defined as Fluid?

**Author:** Lorenzo Barboni

**Instructor:** Alissa Nephew

**Class:** English Composition II

Throughout the stages of puberty, the human mind and body grow and develop in order to accommodate the natural instinct of reproduction. In this period, individuals start to experience feelings such as sexual desires which are driven by the attraction related to their gender of interest. Regardless of what is defined as socially accepted, changes in a person's sexual orientation can be environmentally and psychologically influenced, but can also appear naturally over time. The following literature review confirms that sexual orientation may potentially vary throughout the lifespan of an individual. Although this concept might be considered controversial in main stream thought, in social categories such as non-exclusively heterosexual people, women, and those younger than 30 years old, "known as Gen Z", this concept is growing in acceptance.

Sexual orientation can vary over time due to a deeper understanding of the self, throughout time the concept of sexual fluidity has become more recognized by society and endorsed by the younger generation. Cohen et al. (2020) state that the way individuals display their sexual orientation, label their own sexual identity, or interact during sexual experiences, may possibly evolve. Specifically, teenagers are most likely to report changes in their sexual orientation and sexual identity in their development. Results from this research demonstrate that presenting changes in sexual attraction around gender is significantly more prevalent among queer participants as compared to heterosexual participants. Cohen et al. concluded that understanding teenagers' sexual development may really help reduce stressors such as

stigmatization, abuse, and sexual risk-taking (2020). Further studies supported these findings. Srivastava et al. (2022) find that changes in sexual orientation labels are related to good and healthy outcomes among teenagers and young adults. These researches suggest that young people who identify as non-heterosexual or generally queer are the population that is more prone to report variations in their own sexual orientations. Srivastava et al. concluded that teenagers and young adults who identify as non-heterosexual are more likely to report depressive symptoms, suicidal thoughts and attempts, and substance abuse compared to people who identify as heterosexual (2022). Sabra and Katz-Wise (2015) investigated fluidity in sexual attractions, sexual identities, and the association between sexual identity development and sexual orientation dimensions. This research indicates that women who identify as sexually fluid describe their sexual identity without basing their judgment on fixed concepts such as gay or straight, while men who identify as sexually fluid are more likely to define themselves as either homosexual or heterosexual. By definition, people who are sexually fluid have typically experienced sexual attraction towards both genders, whereas non-sexually fluid people do not. Sabra and Katz-Wise posit that fluid sexual attraction is not correlated to the time in which people reach developmental milestones; regardless, females seem to reach developmental milestones at an older age compared to males (2015).

Unfortunately, the concept of sexual fluidity is still not completely accepted socially, which may lead to sexually fluid individuals to struggling for acceptance, both within themselves and by others. Ventriglio and Bhugra (2019 ) hold that sexuality includes a continuum of behaviors, thoughts, fantasies, acts, and attractions that are beyond procreation (p.1). They support the concept of modern sexology and establish the idea of sexual fluidity and gender identity to explain how the two concepts are flexible and can vary over time. The researchers



assert that health providers and politicians need to be aware of the way in which people want to define themselves in order to prevent discrimination and prejudice, while providing a healthy environment to sexually fluid people in which their health needs are met (2019).

Perhaps surprisingly, women seem to be more inclined to accept changes in their sexuality, arguing that that females may be biologically designed to have sexual intercourses with other women in polygamous marriage and thereby lessen the tensions and conflicts related to that marriage. Kanazawa confirms that women who have experienced changes in sexual orientation have a higher number of children compared to the ones who have not (2016). Previously, Katz-Wise et al.(2016) declared that people who identify as trans males are usually more likely than individuals who identify as trans females to report sexual fluidity throughout their lifespan. Katz-Wise et al. concluded that heterogeneity of sexual orientation identities and sexual fluidity in attractions are the norms rather than the exception among gender minority people (p.1).

The paper of Diamond et al. (2020) studies 76 women with different sexual preferences, examining diverse types of sexual fluidity, noting how these categories of sexually fluid behaviors are related to one another while studying the characteristics of women's sexual profiles such as bisexuality, exclusive patterns of attraction, sex drive, interest in uncommitted sex, age of sexual debut, and lifetime number of sexual partners. The researchers found that these types of sexual fluidity were not correlated with one another, and each showed a unique pattern of association and features with women's sexual identity. Diamond et al. hold that the only kind of sexual fluidity related to bisexuality is that the general sexual reaction to the less-preferred gender may vary (2020).

People younger than 30 years old seem more prone to embrace sexual orientations other than heterosexuality. A study by S. Bryn et al. (2007) uses a cognitive interview method to explore a new understanding of teenagers' sexual orientation that questions the currently used epidemiologic surveys. These interviews examine the cognitive process implied in answering four survey questions assessing the subjects' sexual identity, sexual attraction, and sex of sexual partners. Questions about subject's sexual attraction were the most consistently understood and, consequently, were easy to answer for almost all the teenagers. In contrast, questions measuring sexual identity when the given options were delineated as either heterosexual, bisexual, gay/lesbian, and unsure appeared to be the most difficult for the participants to answer. The researchers note that teens preferred to identify their sexual identity with intermediate options such as mostly heterosexual or mostly homosexual, presumably because these more nuanced options reflect their feeling of not existing in one limited category. S. Bryn et al. conclude that individuals who participated in this study had inconsistent and various interpretations in terms of how they identified sexually (2007).

## **Methods**

The purpose of this interview study is to investigate how teenagers and young adults perceive fluid sexual attraction, based on their experience. The cohort consists of teenagers and young adults, ranging in age from 15 to 25. My study population is equally divided into Americans (3 males and 3 females) and Italians (3 males and 3 females) individuals with different age, gender, and sexual orientations. The topics of interest involve the participants' personal opinions and experiences related to sexuality and sexual attraction, as well as their thoughts on sexual fluidity. These interviews took place in person or via Zoom, talking

approximately 10 minutes for each participant. With the participants' permission, I digitally recorded their voices in order to transcribe and analyze the data related to my topics of interest.

## **Results and Discussion**

In the interviews, 60% of the participants stated that the first person they were attracted to was someone of the opposite gender, while 40% first felt attraction toward someone of the same gender. These results are significant in this area of study because feeling attraction toward people of the same gender is still believed as not as common as feeling attraction toward people of the opposite gender. Results highlighted that 91% of the participants support the LGBTQ+ community and 9% of them are impartial toward it, which is an important finding if we think that discrimination and prejudice toward the LGBTQ+ community are still present. The results indicate that the environment in which people grow up does not influence their sexual orientation. However, the environment in which people grow up could lead non-heterosexual people to perceive their sexual orientation as wrong and consecutively repress it. Every one of the participants interviewed affirm to have felt attraction toward people of the same gender at least once in their life; fear and confusion seemed to be common emotions during these episodes.

All the participants agreed that sexuality could change over time, with 50% of the participants claiming to be open to the possibility that their sexual orientation could change with time. However, only 60% of them report that they would embrace such a change, while the remaining 40% would repress it. This is another unexpected result that supports the theory that sexuality can be fluid and evolve, although not everyone would be prone to accept it. People who report feeling fear about changes in their sexual orientation point out that growing up in religious households influenced their view of homosexuality, considered as a sin. Many participants state that changes in sexual attraction are correlated to the person's predisposition to experiment and

self-discovery, referring to this event using the term “evolution” instead of “change” regarding their sexual orientation. It appears that 80% of the queer population interviewed mentioned having experienced discrimination, while the remaining 20% of the participants have never experienced discrimination, ostensibly because they have not disclosed their sexual orientation to others. These data indicate that belonging to the LGBTQ+ community could inevitably lead to discrimination. Lastly, Italian participants seemed to have faced more discrimination compared to American participants, which is a cultural aspect that stood out while I was analyzing the data.

### **Limitations**

Since the topic I’ve treated in this study is controversial and still somewhat taboo, it was hard to find participants who were willing to answer questions about their sexuality. Although I tried to keep the people interviewed as comfortable as possible, most of the participants who identified as heterosexual felt embarrassed when answering my questions. Feelings of embarrassment when answering questions about sexuality is a factor that strongly influenced the amount of data I was able to obtain from them. While the study population is balanced between straight, bisexual, and gay people, the results should not be necessarily be considered to represent the whole straight, bisexual, and gay communities as wholes. The participants were all between the ages of 15 and 25 years old, which is a factor that limits this research to a specific population.

### **Conclusion**

In conclusion, changes in sexual orientation are not an uncommon phenomenon, although evolutions in sexual attraction seem to be more accepted by the younger generation. It is natural to explore different aspects of sexuality throughout an individual’s lifespan, which may indeed be beneficial in the long run. Since sexual orientations other than heterosexuality have become

more socially accepted in recent years, further studies are essential to confirm concepts and theories presented in the past.

## References

- Cohen, N., Becker, I., & Štulhofer, A. (2020). Stability versus Fluidity of Adolescent Romantic and Sexual Attraction and the Role of Religiosity: A Longitudinal Assessment in Two Independent Samples of Croatian Adolescents. *Archives of Sexual Behavior*, 49(5), 1477-1488. <https://doi.org/10.1007/s10508-020-01713-y>
- Diamond, L., Alley, J., Dickenson, J., & Blair, K. (2020). Who Counts as Sexually Fluid? Comparing Four Different Types of Sexual Fluidity in Women. *Archives of Sexual Behavior*, 49(7), 2389-2403. <https://doi.org/10.1007/s10508-019-01565-1>
- Kanazawa, S. (2017), Possible Evolutionary Origins of Human Female Sexual Fluidity. *Biological Reviews*, 92: 1251-1274. <https://doi.org/10.1111/brv.12278>
- Katz-Wise SL, Reisner SL, Hughto JW, Keo-Meier CL. (2016) Differences in Sexual Orientation Diversity and Sexual Fluidity in Attractions Among Gender Minority Adults in Massachusetts, *The Journal of Sex Research*, 53(1):74-84.  
doi:10.1080/00224499.2014.1003028. Epub 2015 Jul 8. PMID: 26156113; PMCID: PMC4685005.  
<https://www.tandfonline.com/doi/abs/10.1080/00224499.2014.1003028?journalCode=hjsr20>
- Sabra L. Katz-Wise (2015) Sexual Fluidity in Young Adult Women and Men: Associations with Sexual Orientation and Sexual Identity Development, *Psychology & Sexuality*, 6:2, 189-208, DOI: [10.1080/19419899.2013.876445](https://doi.org/10.1080/19419899.2013.876445)
- S. Bryn Austin ScD, Kerith J. Conron MPH, Aarti Patel BA & Naomi Freedner MPH (2007) Making Sense of Sexual Orientation Measures: Findings from a Cognitive Processing

Study with Adolescents on Health Survey Questions, *Journal of LGBT Health Research*, 3:1, 55-65, DOI: [10.1300/J463v03n01\\_07](https://doi.org/10.1300/J463v03n01_07)

Srivastava, A., Winn, J., Senese, J. et al. (2022) Sexual Orientation Change among Adolescents and Young Adults: A Systematic Review. *Archives of Sexual Behaviors*, 51, 3361–3376. <https://doi.org/10.1007/s10508-022-02394-5>

Ventriglio, A., & Bhugra, D. (2019). Sexuality in the 21st Century: Sexual fluidity. *East Asian Archives of Psychiatry*, 29(1), 30–34. <https://search.informit.org/doi/10.3316/informit.264090806459055>