

Being Gendered: Cognate Forms from Caves to Cyberspace

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ABSTRACT

The emergence of art and symbolic representations are an enigmatic puzzle from a Darwinian perspective since they could have led primitive humans to waste so much time and energy on abstract things. As Philip G. Chase comments, symbolic culture was never essential for survival. Rather than an adaptation to environment, the extraordinary wastefulness of art may better be explained in terms of sexual or signal selection. By analysing the oldest-known cave art paintings, the ancient hand imprints in France and Spain, archaeologist Dean Snow of Pennsylvania State University found that 75% of the hands are of women as against the previous assumptions that they are of adolescent boys and men. But artistic expressions in general and literature in particular were later taken over by masculine prowess. As Emile Durkheim's phrase 'division of labour' suggests, it might have been a consequence of changed social structures. Ever since male notions have begun to dominate the social institutions, art and literature become their active forms of representation.

From primitive cave paintings to modern digital technology, the disparities in gender representation is vivid and evidently supporting a male aesthetics. Throughout human history, women have been involved in art as innovators and inspiration. Still, they have faced

challenges due to gender biases, from to publishing their work to gaining recognition. Although Western mythology takes a woman as the first artist, her female successors received little attention until the last century. Women were denied of pursuing general education. Moreover artistic endeavours like textiles and other decorative arts were often dismissed as craft. The resulting massive majority of masculine productions in fine arts and literature crafted an image of women that is feminine in a masculine way, not a feminine in a feminine way.

In this article, I would like to use the word “media” to represent all spheres of rendition – all areas of arts and literature – and how this media has been detrimental to the formation of gender identities. As I said earlier, the biased representations have crafted images of gender identities in human society that transcends time and space. The media not only render the image but also conserve it for generations of people. Nothing has improved – the increase in literacy and rational thinking, the development of science and technology – the image and identity of different genders. We are in a digital age – an age of big data and deep learning, age of virtual social relations. Although the CEO of the leading social network Facebook, Mr. Mark Zuckerberg states his ideal as “to make the world a better place”, the users are not keeping it even for their virtual interactions. The cases of cyber bullying are only increasing and the governments have to put legal restrictions upon companies and its users. The history of the representation of gender in media has a continuous and everlasting role in determining human approach towards gender. This paper analyses the influence of media in rendering and conserving gender identities and even the most modern inputs act as tools for spewing age-old rudimentary propositions.

Keywords: Media, Art, Literature, Gender Identity, Digital Age, Social Media.

An enthusiast of gender studies who starts to learn the history of gender would most probably come across the scholarly article of Joan W. Scott's "Gender: A Useful Category of Historical Analysis". Scott noted that the feminists had adopted the term "gender" to refer to the social construction of sex differences and made it as an analytical category like class and race. She renounced the use of the term "gender" as a distinctive social quality synonymous to women or female sex. She goes against this notion and delineates her opinion:

In its simplest recent usage, "gender" is a synonym for "women." Any number of books and articles whose subject is women's history have, in the past few years, substituted "gender" for "women" in their titles. In some cases, this usage, though vaguely referring to certain analytic concepts, is actually about the political acceptability of the field. In these instances, the use of "gender" is meant to denote the scholarly seriousness of a work, for "gender" has a more neutral and objective sound than does "women." "Gender" seems to fit within the scientific terminology of social science and thus dissociates itself from the (supposedly strident) politics of feminism... Gender is [thereby becomes] a social category imposed on a sexed body. (Scott, 1056)

As Scott further analyses, the approaches to gender studies can be reduced to three theoretical positions: first is a purely feminist effort to explain the origins of patriarchy and its role in the subordination and creation of a mystic image of womanhood; second is the Marxian stream where gender is a by-product of changing economic structures; and the third is the French and Anglo-American schools of psychoanalysis explaining the production and reproduction of gendered identity. The Anglo-Americans follow the theories of object relation and Nancy Chodorow and Carol Gilligan from U.S. stress the influence of actual sensory experience, while the French post-structuralists perceives language (all symbolic orders) as responsible for communicating, interpreting, and representing gender roles.

In this article, I would like to use the word "media" to represent all spheres of rendition – all areas of arts and literature – and how this media has been detrimental to the

formation of gender identities. A medium of representation – be it painting, sculpture, performance arts, literature – has have an impact upon the preservation of gender roles.

When we look at the animal world, we could observe division of labour among male and female especially among social mammals. While female lions hunt, males stay idle or often fight other males. Our closest cousin chimpanzees have a strictly male-dominated social hierarchy, but the Bonobo chimpanzees maintain a matriarchal structure. The roles assigned to male and female are visible in all aspects of the animal life, from courtship and mate selection to child-rearing. Among many animals, the size of their bodies is an explicit evidence of the dominance of one sex, for example the male gorilla is nearly twice the size as females enabling him to defend his mates from other dominant males.

The size difference between a man and a woman is relatively modest, 10 to 15 per cent, with a wide range of overlapping. Besides, these differences have been diminishing and nearly gone in the process of evolution. We are moving away from the gender roles that our ancestors used to play. The early humans as hunter-gatherers lived their lives in a way that shaped the evolutionary process. In the pre-agricultural societies, there were no consistent gender roles, though adult women together took care of the children, did household chores while men were away for hunting. Women acquired more skills than men. In general, we could observe that some groups were patriarchal, while some were matrilineal; the vast majority were largely egalitarian.

The extinct hominid species Neanderthals maintained sex based division of labour though the differences were cultural, based on the skills transmitted from one generation to other. The aspect of culture gained more advanced features among Homo sapiens. The other hominid species were on the way but the Homo sapiens survived. We could thereby observe that sexual equality is not a recent development. What could have changed that? The answer is in the beginning of agriculture, when humans could start to gather resources, and inequality surfaced. While sexual equality played an assisting role in the social organisation and survival of the early Homo sapiens, agriculture turned things upside down. It brought a strict family system, thereby making the transfer of wealth to legitimate heirs.

Agriculture and advancement in civilisation had brought more specialisations and new social roles. Soft skills begin to play considerable influence in cultural scenario. With the development of art and more advanced systems of representations, all kinds of inequalities increased including sexual inequalities. Here begins the development of more specific forms of gender roles. Stereotypes were begun to be constructed and maintained through art and literature.

The earliest of engraved and painted images is discovered in Abri Castanet in southern France and the Radiocarbon dating reveals that the art was created 37,000 years ago. The images are of animals, geometric figures as well as female vulva; “the dominant motif is that considered to represent abstract female vulvas”, said anthropologist Randall White. Chauvet Cave in south-eastern France is the second oldest one with almost same engravings. The cave for our ancestors was analogous to the entry point into the womb of Goddess Earth. Venus of HohleFels from Germany is the oldest of sculptures made of mammoth ivory having large projecting breasts and a pronounced vulva and labia majora. The fertility cult and procreation was the most depicted theme in the rock paintings worldwide denoting earliest traits of gender roles.

Even though fine arts developed into more advanced media, along with language and literature, the subjects and symbols have been retained. Women have been depicted in the form of clay statuettes and bronze sculptures. The murals of Ajanta and Ellora are embellished with the sensuous and sublime figures of women though the core theme is religious. The image of woman in Indian miniature has mostly been depicted with the integration of societal dimensions and sensuous appeal and this stereotypical portrayal has been prevailed. As AlexxaGotthardtmentions, the objectification of male figures is prominent in ancient Greek where the male body is fetishized in sculptures that represent powerful, illustrious men as hulking figures with taut, rippling muscles. Sometimes these figures appear partially clothed in drapery or cloth; often, they are stark naked with small penises (Gotthardt 2018). Another exception is the Khajuraho Group of Monuments in India portraying almost all expressions of gender. In majority of artistic productions around the world, womanhood is portrayed in an objective manner. She may either be the companion/lover of a man or the representing patriarchal hierarchies.

With the growth of language and literature, male aesthetics took hold of the media and female writers became a rarest species. Even words in languages were inadequate to express female emotions. Benjamin Lee Whorf put a hypothesis on this:

We dissect nature along lines laid down by our native language. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscope flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems of our minds. (Whorf 230).

When some languages follow natural gender in grammar, some have grammatical gender system assigning gender to words and having inflexions based on gender. But it does not mean that the conceptual framework of humans is in a flux; it remains constant in its core features. Still the second wave feminism holds language accountable for sexist thought processes in humans. Robin Morgan observes:

The very semantics of the language reflect our condition. We do not even have our own names, but bear that of the father until we exchange it for that of a husband. We have no word for what we are unless it be an auxiliary term for the opposite: man/woman, male/female. No one, including us, knows who we really are. (Morgan 106).

Language reflects the social fact of considering women as weaker section in society; they are supposed to stay at home, remaining powerless. However, the attempts from the part of the feminists have led to a number of conscious changes in language and linguistics. Some words tend to have less favourable meanings, or no male counterpart as 'prostitute' or 'mistress'. Many of the proverbs –having the status of “wise-sayings” – contain sexist remarks. These stereotypes are based on generalizations of the behaviour of man and woman. Such generalisations are inaccurate and obstruct the representation of the changing gender roles in society.

Hitherto said words are on the gender discrimination between the male and female; but the identity that is forgotten is that of transgenders. Defining transgender was a difficult

task for the primitives and they often considered such people as cross-dressers or assuming an odd identity. The scientific studies on transgender identity appear only in a later stage. But before the advent of queer, LGBT communities, the portrayal of the transgenders revolved around many irrational beliefs. In Europe, Americas and in different parts of Asia, transgenders were treated differently. India is a country with a social element of a third gender, like the Hijra culture; but violence amongst them prevails and the community often treated them as homosexuals.

Transgenders are nothing new, but the linguistic expressions surrounding gender identities are relatively young. As transgender is not a sexual orientation, the word “sex” is replaced with “gender”. They experience an inconsistent gender identity that society has assigned to them. This inconsistency of identity is reflected in the media of art and literature; the representations of these people contain an air of mystery. Art and literature lack adequate representations of the third gender and still it is a curious subject for the majority of Homo sapiens on this planet and are ignorant of the transgender identity.

The 20th century feminist movements have brought significant changes in gender identities. The media – art and language – are enriched with works of art and vocabulary to identify the deeper aspects of gender identities. The growth of technology and the rise of English as an international language unified peoples around the world to discuss these hitherto ignored areas. The rise of the social media has opened new venues of interactions and media have become more democratic than earlier.

Social media have been producing more mediums of representations. It has democratised mass media as well. This has provided platform for those people whose thoughts and expressions would have been left unheard. Individuals could express their opinions openly and receive feedback; they could bring new subjects for discussion. This has given opportunities for women and LGBT communities to share their experiences and emotions, and give new insights into the lives of different gender types.

But how far social media is successful in creating a virtual community with freedom of expression? Are we really free in the virtual world? In a virtual community, where algorithms invisibly shape user interaction, one’s existence is in chains. Programmes put

before us contents that suit our behaviour. When we think that the world is open before us, it narrows down our space considerably and restrict us into a desired a circle. You are exposed only to those contents in which you are interested.

Machine learning is a core branch of Artificial Intelligence that aims to give computers the ability to learn without being explicitly programmed. The technology has been used to build driverless cars, speech recognition, advanced web search and to map the human genome. We use it in our day-to-day activities without even knowing its depth. Deep learning is part of machine learning methods based on learning data representations. Deep learning architectures are used in areas including computer vision, speech recognition, natural language processing, audio recognition, social network filtering and machine translation (Lecun 436).

Deep learning has the ability to process large amount of unstructured data. In this and the last decade, a number of useful human-computer interaction systems have been designed. Like a human being recognising the gender of another human, automated machines like robots have developed the same faculty using machine learning. Today machines can identify gender by recognising face. A smartphone camera would tell the user the age and gender of a person. Researchers at Bradford University have developed a machine learning algorithm which can identify gender using the movement of a smile. Here is what they have done:

The Bradford team began by mapping 49 features of the face, mainly around the eyes, mouth and nose. These ‘landmarks’ were monitored and used to assess exactly how the face is contorted by underlying muscles as we smile. The researchers then compared the movement in women’s smiles with that of men’s smiles, and found that women’s smiles tend to be wider. “Anecdotally, women are thought to be more expressive in how they smile, and our research has borne this out. Women definitely have broader smiles, expanding their mouth and lip area far more than men,” said Professor Hassan Ugail, who led the study. Based on what they found, the researchers developed a simple machine-learning algorithm. This proved reasonably effective at assigning gender according to a smile, correctly guessing gender in 86 per cent of cases. (E&T)

Automatic gender recognition is being used in various software and hardware, because of the increase in traffic to social networking sites. The Deep Convolutional Neural Network (D-CNN) technique is used in face recognition, involving face dependent gender recognition and age-based recognition. The question here is the benchmark used to recognise gender pattern. While the machine cannot identify things on its own, it is the programmed point of reference that leads it to the conclusion. And, what is that model? –the age old gender identification itself.

The machine learning algorithm is an issue lesser discussed affecting the transgenders and non-binary communities. Even though they can handle the most complex processes easily, the parameters used in artificial intelligence shapes our world conservatively. As Janus Rose comments, algorithms are assertions about how the world should work, implemented through code. These assertions reflect the biased assumptions of their creators, and they can be deadly. Left to their own devices, algorithms can function as tools of oppression, entrenching the structural inequality that permeates our society. (Rose).

Janus Rose is a New York based writer on technology related issues, a trans-woman who is critical of the machine algorithms that continues the stereotypical gender identities. In an article she has written in *Dazed Digital*, she shares her anxiety:

As a transgender woman who researches machine learning and artificial intelligence, I want people to understand how algorithms and automation can impose a model of the world that negatively affects people like me. When we deploy algorithms in large systems that affect millions of people, their harmful effects cascade and multiply. Regardless of the creator's good intentions, they can function to benefit the powerful, privileged and well-off, while causing devastating impacts on the most vulnerable among us – immigrants, people of colour, trans and gender-nonconforming folks, and other marginalised groups... Of course, gender isn't something that can be determined from a person's physical appearance alone. And transgender people like me frequently face discrimination, harassment and violence when our appearance doesn't conform with mainstream, cisgender expectations of 'male' or 'female'. (Rose).

Even in the field of software coding, the gender inequality persists. Just 16% of Facebook's tech staff and 18% of Google's are women, according to figures released in 2015. The figures are obscure regarding transgenders and non-binaries. There are researches claiming that women choose certain programming languages over others. Within the context of computer programming contests, women may be perceived as less competent because they adopt less risky approaches. This matter is even more deleterious, given that stereotypical beliefs, such as "people view me as less competent because I am female" often lead directly to depressed performance (Steele and Aronson, 797-811).

But it is interesting to note that there are two women responsible for the development of computer programming language. One is Ada Lovelace, daughter of Lord Byron, a romantic poet and the other is Betty Jean Jennings, one of six women who programmed the ENIAC, during the World War II. Lovelace met Charles Babbage, who became a very good friend and mentor. Babbage showed her the plans he had for a machine that he believed to be able to do complex mathematical calculations. Lovelace had envisioned that a computer can do words, pictures and music, not just numbers, as different from Babbage's concept.

The later developments are history and by the end of 20th century, women turned a minority in this field. In 2013 Google ran neural network algorithm on 3 million words from Google news and plotted a vector space with almost 300 dimensions. The result is the following:

It turned out that words with similar meanings occupied similar parts of this vector space. And the relationships between words could be captured by simple vector algebra. For example, "man is to king as woman is to queen" or, using the common notation, "man : king :: woman : queen." Other relationships quickly emerged too such as "sister : woman :: brother : man," and so on. These relationships are known as word embeddings. But Tolga Bolukbasi at Boston University and a few friends from Microsoft Research say there is a problem with this database: it is blatantly sexist. And they offer plenty of evidence to back up the claim. Ask the database "father : doctor :: mother : x" and it will say x = nurse. And the query "man : computer programmer :: woman : x" gives x = homemaker. (arXiv).

The male dominance even in the field of artificial intelligence has a far reaching impact upon the gender rolesman/ woman/ trans has to fit into. While the advent of printing and of mass media marked the first step towards the universalization of gender roles, social media or new media is reassuring the descending status. In the first stage, there is the broadcast media such as television, radio and newspapers; and private communication media like telephone. With the arrival of internet, group based interactions have become popular, and the traditional media have created their spaces in new media for survival. The one-to-one and group based interactions in social media web sites and applications have opened new venues for gender abuse and violence.

The impact of social media on gender is two faceted: first, it has retained traditional ideals of masculinity and femininity and maintained existing gender relations, and second, it has transformed gender differences and anyone could assume any gender under the anonymity it provides. Earlier communication models in social platforms have shaped an image that social media could provide freedom from gender identities. The anonymity that an online identity provides gives freedom for the users to hide their biological gender and assume different gender roles. But this has brought another dangerous consequence of cyber bullying.

It is not only the new users and teens who are subjected to cyber bullying, but the established faces in society too have undergone hard times. The users of personal chat and relationship services and applications are more prone to abuse and bullying. Dating applications like Tinder have been reported to be platforms of gender abuse. The Instagram accounts *Bye Felipe* and *Tinder Nightmares* have revealed screenshots of sexist abuse and harassment female users have received from male users on dating apps. Misogynistic comments like “stuck up”, “whore” and “slut” are thrown at female users to insult them. In Australia, police and sexual assault counsellors report increasing targeting of female users by sexual predators, as rape and sexual assault figures are in a rise. In India several cases are reported in connection with dating services like harassment, rape, blackmail and privacy violations.

Regarding group communication in social media, misogynistic trolls have become a major tool for gender abuse. Trolling is present across internet cultures, but Karla Mantilla names specifically its misogynist variants as “gendertrolling.” She extensively describes the features of gendertrolling such as, the coordinated participation of numerous people, gender-based insulting, use of vicious and vile language, credible threats of rape, torture, and killing; having unusual intensity, scope and longevity of attacks; and usually comes out as a reaction against the criticism of a woman against sexism. (Mantilla 563-65).

The gender identity in social media is displayed through gender avatars. Social networking apps play a pivotal role in progressive standards around identity. The imagery used to indicate the individual users called avatar play the role in identifying gender. When a user starts to create a profile in a social networking site, it will ask the gender of the user. If the user does not upload a picture as his avatar, a gender avatar will be displayed by default either of a male or a female. Most of the sites follow this pattern and do not provide gender choice or avatar for the transgenders.

Deducing these representations into a single point prove that the standard set by the patriarchal norms is the basis for gender identity up to the present information age. Most of these things are the outcome of pure ignorance or the indolence to accept egalitarian principles. The majority of the humans still keep scientific and rationalistic thoughts in a distance and embrace the age old ideologies. The dissecting of avatars or representations of gender conveys the uneasy fact that they remain static from caves to cyberspace.

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