Reconceiving Science through a Feminine Perspective: Ethical Narration in Amruta Patil's Kari and Ram Devineni's Priya's Mirror

Nanni V K[1], Dr. Abhisarika Prajapati[2]

[1]Research Scholar, School of Arts, Humanities and Social Sciences, REVA University, Bengaluru and Assistant Professor, Government First Grade College, Tumkur, Karnataka.
[2]Associate Professor, School of Arts, Humanities and Social Sciences, REVA University, Bengaluru.

Abstract- This paper explores how science is reimagined as an ethical and relational practice in Amruta Patil's Kari and Ram Devineni's Priya's Mirror through the lens of Indian comics and graphic narratives. These works articulate a feminist epistemology grounded in care, empathy and sustainability, moving beyond the conventional view of science as technological mastery. The study argues that Patil and Devineni transform scientific discourse into a medium for moral and cultural reflection, focusing on the frameworks of ecofeminism, feminist science studies and the ethics of care. Amruta Patil fuses the imagery of decay, biology and anatomy to animate Mumbai as a sentient organism in Kari. Blending ecological awareness with emotional resilience, the queer and introspective gaze of the protagonist turns scientific observation into an act of compassion and empathy. Integrating digital innovation with mythic symbolism such as employing augmented reality and survivor testimony, Devineni creates a participatory form of storytelling in Priya's Mirror, where technology becomes a channel for empathy and collective healing. The paper demonstrates how both narratives replace the patriarchal logic of domination with a feminist ethic of interdependence through the close reading of text and image. Uniting logic, compassion and creativity, the comics medium itself emerges as an instrument of ethical science communication. Ultimately, Kari and Priya's Mirror envision a sustainable future in which knowledge is defined not by control or hierarchy but by the capacity to coexist responsibly within the web of life.

Keywords- Indian comics, feminist science studies, ethics of care, sustainability and digital empathy.

I. Introduction

The 21st century has witnessed the fading of the boundaries between culture, science and technology. Scientific progress is no longer confined to laboratories or legal frameworks. It has woven itself into the moral and creative fabric of society. The question of how and for whom we represent science has become a critical cultural concern as humanity struggles with the intertwined crises of inequality, technological overreach and ecology. The literature and arts, especially visual storytelling forms like comics and graphic novels offer effective tools for transforming scientific knowledge into social and moral imagination. Indian comics and graphic narratives have risen to the challenge in recent years by fusing the concerns of feminism, sustainability and science. They accomplish this by using comics' visual language to challenge the virtues and disadvantages of modernity.

In this changing environment, the two striking literary works Amruta Patil's Kari and Ram Devineni's Priya's Mirror rethink science from a distinctly feminist perspective. Their treatment of science is not confined to laboratories, experiments or scientists in the conventional sense but as a way of seeing and reacting to the world. In both the narratives, lived experiences of women navigating trauma, urban decay and technological change are illuminated through the adaptation of scientific language. Digital technology functions as a vehicle for empathy and advocacy in Devineni's Priya's Mirror, while Patil's Kari assesses the anatomy of emotional survival in a polluted city. These visual narratives turn scientific rationality into a tool for care through their unique styles, one participatory and multimedia, the other introspective and poetic.

Amruta Patil's Kari opens with a scene that is both haunting and intimate. Ruth called her and asked her to look up, the narrator recalls. "Look up," Ruth says from the rooftop's edge. There is the person who loved you the most. A few seconds after she leaves, Kari follows, but it's only a few seconds too late. Kari descends through the city's underbelly, but Ruth is spared death when a safety net breaks her fall. She comes "out of the sewer and into a landfill," alive but changed. Both endurance and contamination are implied by the accompanying image, which shows a lone body floating in murky water surrounded by trash. This example of survival through filth defines the novel's central metaphor that death as renewal and impurity as transformation. The imagery of the body rising from waste reimagines rebirth as persistence within decay rather than as purification. Patil situates Kari's story in an ecological and ethical framework through these opening panels, where the urban body is sustained by cycles of loss, endurance and regeneration alike the human body.

Kari internalizes science through biological imagery, while Priya's Mirror externalizes it through technological innovation. As part of the Priya's Shakti series, Ram Devineni and artist Dan Goldman created Priya's Mirror, the first Indian comic project to use augmented reality technology. Readers can scan the printed pages with a smartphone app to activate survivor testimonies and animations that blend mythology with real world activism. The story continues with Priya's journey as a survivor who becomes a symbol of women's strength and compassion. She uses a mirror to free women who are imprisoned by self-blame and guilt. In this story, technology is changed from a tool for spectacle to a tool for morality. The recognition is immediate and personal because the reader's face is actually reflected in the digital mirror. Devineni uses religious imagery and contemporary technology to reframe science as an interactive activity that fosters empathy and group consciousness.

Priya's Mirror and Kari both operate at the nexus of ethics and science. They contend that moral and emotional understanding can be supported by the scientific imagination rather than being in opposition to it. Devineni's digital activism project and Patil's story of deterioration and perseverance both challenge the patriarchal view of science as detached rationality, the same kind of universal viewpoint that Donna Haraway criticizes. Rather, they support what Haraway refers to as "situated knowledge," which is an understanding based on context, embodiment and concern. This change is embodied by the main characters in both the works. Priya uses technology as a mirror

for group healing rather than as a weapon, while Kari observes her surroundings with the accuracy of a scientist and the empathy of an artist.

A key component of this ethical rethinking is the medium's selection, comic books. Comics are perfect for depicting intricate systems like cities, ecosystems or digital networks because they blend text, images and spatial rhythm. According to Scott McCloud in Understanding Comics, readers actively engage in meaning-making in the gutter, which is the area between panels. The democratic spirit of science as a collective quest for knowledge is reflected in this participatory logic. Additionally, comics' visual structure gives abstract scientific ideas like digital transformation, decay or mutation emotional depth. Patil's monochromatic panels in Kari mimic medical scans, transforming the comic into a diagnostic tool in and of itself. The interactive interface in Priya's Mirror dissolves the boundaries between art and experience, imagination and data, and reaches beyond the printed page into the reader's device.

When combined, these two texts engage in what is known as ethical science communication. They convert scientific reasoning into visual metaphors for survival and care. These works emphasize human context where science seeks universal objectivity, celebrate control where it celebrates vulnerability, and insist on closeness where science traditionally values distance. Patil and Devineni transform science from data into narrative, from detached observation into shared interdependence and from a discourse of power into a language of empathy.

In addition to being stories about women, Kari and Priya's Mirror also explore the gendered, embodied, and transmitted nature of knowledge. These works present a vision of a more compassionate and sustainable future where science is closely linked to society by centering their scientific metaphors around the experiences of women and queers. For such a vision, the comic form, with its synthesis and multiplicity, becomes the ideal medium, a place where empirical observation and ethical imagination, emotional truth and rational thought, coexist in dialogue. These stories serve as a reminder that the sustainable future we envision must also be a narratable one, crafted and expressed via acts of kindness, ingenuity and shared imagination as India looks to define its position in a rapidly evolving technological world.

Theoretical Framework: Feminist Science Studies and the Ethics of Care
It is crucial to situate these narratives within the frameworks of ecofeminism, feminist science studies and the ethics of care in order to comprehend how they turn science into a centered discourse that is both ethical and human. These viewpoints challenge the conventional wisdom that regards science as value-free and objective. Rather, they stress how knowledge is always positioned in relation to social, cultural and gendered contexts. When analyzed using these frameworks, both texts demonstrate how emotion, empathy and imagination can coexist with scientific reasoning to create a sustainable and inclusive future vision.

The positivist ideal of detached objectivity gave rise to feminist science studies. According to scholars like Sandra Harding, Evelyn Fox Keller, and Haraway, science has historically marginalized relational and affective forms of knowing while elevating masculine values of control and abstraction. The idea of a universal observer is

contested by Haraway's situated knowledge theory, which maintains that all knowledge is accountable and incomplete.

In this way, situated knowledge can be creatively enacted in Kari and Priya's Mirror. The protagonist's emotional and sensory experiences serve as the foundation for Kari. Her thoughts on isolation and decay are embodied experiences with a living environment rather than objective observations. Her gender, sexual orientation and place in the urban ecosystem all influence her viewpoint. As a result, the comic becomes a model of scientific consciousness based on empathy rather than dominance. Similar to this, Priya's Mirror ensures that technological innovation is inextricably linked to lived experience by incorporating situated knowledge into its collaborative production process that involves activists and survivors.

These pieces challenge the dichotomy between emotion and reason by fusing subjectivity and science. They remind readers that knowledge is created not just in labs but also in digital spaces and on the streets, where women struggle for solidarity and survival. This viewpoint is consistent with Harding's concept of strong objectivity, which emphasizes understanding how social contexts influence research. The marginalized experiences that are frequently left out of mainstream science and technology are brought to light by Patil and Devineni.

Ecofeminism offers yet another important perspective. The movement links women's oppression and the exploitation of nature, as expressed by Vandana Shiva and Val Plumwood. Systems that prioritize dominance over collaboration apply to both. According to ecofeminist theory, reestablishing reciprocal and caring relationships between people and the natural world is essential to achieving sustainability.

This ecological consciousness permeates both the artwork and the narrative in Kari. The city is an active organism rather than a background. Mumbai is portrayed by Patil as a living, breathing body with veins, lungs and nerves that resemble human anatomy. Kari's close observation of her environment reveals a scientific gaze that is neither aloof nor exploitative. When she notices symptoms of environmental illness, she reacts with compassion rather than dispassion. Science becomes a moral activity as a result of this observation. The ecofeminist sensibility is carried over into the digital sphere in Priya's Mirror. It discusses the emotional and social ecosystems of trauma and recovery, even though it isn't specifically about nature. By fostering networks of empathy, the augmented reality feature demonstrates that repairing social environments is also essential to sustainability. Priya's Mirror exemplifies what Plumwood refers to as an ethics of relationality, in which the well-being of the group is linked to the flourishing of individuals, by utilizing technology to unite rather than to isolate.

Relational responsibility is emphasized as the moral cornerstone of the ethics of care, as stated by Carol Gilligan and Nel Noddings. Empathy, focus and responsiveness to others are the foundations of moral understanding. Feminist science studies, which contend that scientific practice ought to answer to the communities it impacts, are in line with this strategy. The ethics of care play a major role in both pieces. Empathy for both herself and other living things is essential to Kari's survival in a decaying city. Her small, everyday deeds of kindness include caring for Angel, a cancer patient, writing to

friends who aren't there, nurturing plants and feeding stray cats. Patil produces a kind of moral knowledge with these gestures that is just as profound as any scientific finding. Care assumes a technological aspect in Priya's Mirror. The mirror serves as a metaphor for self-awareness and healing in addition to being a magical tool. Users can see their reflection thanks to the augmented reality feature, which turns digital technology into a morally challenging experience.

The masculine stereotype of the lone scientist who watches from afar is contested in both the texts. Rather, they portray science as a collective activity of compassion and accountability. This reinterpretation brings inquiry into line with the values of mutual respect, cooperation and sustainability. The ethics of care thus demonstrates that sustainable science must also be compassionate, bridging the gap between science and social justice.

This theoretical framework is influenced by the comics medium itself. Comics are a type of visual thinking that can convey several levels of meaning at once, as demonstrated by McCloud and Hillary Chute. An embodied and spatial representation of knowledge is made possible by their combination of text and image. For feminist and ethical approaches to science, which prioritize interconnectedness over linear reasoning, comics are therefore a perfect medium. The arrangement of the panels in Kari invites readers to engage in reflection by simulating the cadence of introspection. Through the integration of art, technology and activism into a single ethical experience, digital interaction in Priya's Mirror expands participation beyond the page. Both demonstrate how comics can serve as intellectual laboratories where social message and visual form complement one another.

Kari and Priya's Mirror demonstrate that science is not just a body of knowledge but also a creative and moral activity through feminist science studies, ecofeminism and the ethics of care. Together, these theories lay the foundation for comprehending how Indian comics' female perspective transforms scientific imagination into a more sustainable and compassionate one.

Kari and Priya's Mirror: Feminist Ethics, Science and Sustainability in Indian Comics and Graphic Narratives

Amruta Patil's Kari and Ram Devineni's Priya's Mirror are two complementary investigations of how science can be reimagined through feminist and ethical lenses in contemporary Indian graphic storytelling. Both pieces question the patriarchal idea of science as dispassionate rationality, despite their different forms and tones. Rather, they see it as a relational, living practice that is based on social responsibility, empathy and care.

In Kari, the language of biology and ecology is used to internalize scientific awareness. The main character, a queer woman navigating Mumbai's deteriorating ecosystem, sees the world with the sensitivity of a poet and the accuracy of a scientist. Her thoughts transform commonplace occurrences like dust, rust, rain and fungus into metaphors for environmental and emotional survival. According to this story, science turns into a means of recognizing deterioration without discounting life.

Priya's Mirror, on the other hand, uses technology to externalize this ethical science. The comic, which was made by Ram Devineni and artist Dan Goldman combines myth, activism and online engagement through augmented reality. The narrative centers on Priya, a victim of gender-based violence, who helps other women face their shame and regain their agency by using a mirror. By scanning the printed pages, readers can access survivor testimonies and animations, turning reading into an interactive experience. As a result, technology turns into a moral conduit that spreads empathy both online and offline.

Science as Relational Knowledge

Priya's Mirror and Kari both reinterpret science as relational knowledge. Kari views observation as compassionate attentiveness rather than icy detachment. The city is pictured as a living thing, with its heart still beating, its lungs contaminated and its arteries clogged. Kari's ability to carefully read these decay indicators is essential to her survival. Her vulnerable, queer gaze turns scientific observation into an act of compassion. This relational understanding is translated into a participatory digital framework by Priya's Mirror. By allowing readers to see themselves reflected in the story, the augmented reality interface dissolves the gap between subject and spectator. In this context, science is a group activity rather than an individual endeavour. The smartphone turns into a moral instrument that fosters empathy as opposed to alienation. In their own unique ways, both texts portray knowledge as a collective human duty rather than a tool for control.

Embodied Science: The Biological and the Digital

The biological language is both metaphorical and structural in Kari. Kari's emotional weariness is reflected in the city's dilapidated infrastructure. But she finds resilience in this decay. Rain, fungus and moss all become representations of regrowth. Kari redefines scientific observation as moral attentiveness by focusing on minute, invisible forms of life. The urban and human bodies both function as knowledge sites, maintaining the entwined cycles of renewal and decay within them.

This embodiment is moved into the digital realm by Priya's Mirror. The mirror serves as an ethical symbol, a technological interface and a narrative device all at once. Prisoned women see survivors rather than victims when Priya holds up the mirror to them. By reflecting the reader's own face, the augmented reality feature heightens this symbolism. The digital body turns into a place of connection and recognition as a result of this process. Devineni bridges the gap between scientific innovation and mythic imagination by transforming technology into a form of care.

The Feminist Ethics of Care

The feminist ethics of care serve as the foundation for Patil and Devineni's reimagining of science. Small, everyday deeds like feeding stray animals, keeping an eye on the weather, or writing to friends who aren't there are examples of compassion in Kari. Despite being personal, these acts of empathy have significant ethical implications. Science here is not about mastery but about coexistence. It seeks connection over control and recognizes the frailty of life. Care becomes public and collaborative in Priya's Mirror. Survivors, activists and artists collaborated to create the project, which embodies a collective ethics of storytelling. By enabling users to observe the suffering

and resilience of others, the technology itself turns into a tool for care. The fundamental feminist notion that empathy and acknowledgment are the cornerstone of justice is reflected in the mirror as both an object and a metaphor. Priya's Mirror transforms compassion into an interactive, living science through digital participation.

From Decay to Regeneration

One way to conceptualize the relationship between Kari and Priya's Mirror is as a progression from deterioration to restoration. Kari starts with emotional and physical breakdown. A world crumbling under its own poison is symbolized by the protagonist's near-drowning in the city's sewer. Nevertheless, Patil discovers peaceful rejuvenation in this desolate setting. The city's perseverance turns into a metaphor for fortitude. In turn, Priya's Mirror symbolizes rebirth via digital connection. Shame is changed into solidarity and despair into recognition by the mirror. Priya's Mirror locates resilience in collective empowerment, whereas Kari finds it within the self. The two pieces together create a spectrum that ranges from participatory healing to introspective survival. Both demonstrate how the ability to care, adapt and connect is essential to sustainability, whether it be ecological or social.

In conclusion, science as imaginative compassion

Together, Kari and Priya's Mirror provide a feminist reinterpretation of science as imaginative compassion. Patil's story reveals how observation can become a moral practice by placing science within the context of everyday life. Devineni's project turns technology into a place of empathy by bringing that moral vision into the digital sphere. Both embrace an ethics of interdependence in place of the patriarchal myth of the scientist as an aloof observer.

The biological deterioration of the city serves as a reflection on survival in Kari. The technological mirror in Priya's Mirror turns into a liberating tool. To heal oneself, one looks inward; to heal the community, one looks outward. Nonetheless, both maintain that life must be held accountable for knowledge. Through their pages, science transforms into a caring profession, a conduit between emotion and reason, and a means of achieving sustainable coexistence.

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