

Feminist-Systems Thinking

From mere principles to a United Nations Framework

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Introduction

Knowledge is dynamic and should grow and change. The process of applying a theory in the real world will change the way that theory is conceptualized. New knowledge will replace old. The boundary may expand or contract as the knowledge system that informs the theory relinquishes or takes on new information. Knowledge is “a moving frontier of analysis, experience, communication, strategy and action” ([1], p. 108).

Since the first publication of Feminist Systems Thinking (FST) in 2008, FST has morphed into a new conceptual device called the ‘GEMs’ (Gender equality, Environments and Marginalised voices) framework [2,3]. This chapter provides an opportunity to review FST and trace the process of change FST has undergone. This chapter will briefly review the original FST principles with a retrospective touch upon the limitations of their primary foundational theory/ies. This is an important background to the new knowledge system that has transcended from FST, the GEMs framework. The chapter concludes with some examples of the GEMs framework at work and what it holds for research, evaluation and intervention practice, in the future.

What is FST?

FST [4,5] is the outcome of a 'staged encounter' between cultural ecofeminism (which is explained further below) and critical systems thinking [6]. This simply means that a set of selected texts representing the two bodies of knowledge were systematically compared and contrasted in order to build a more robust treatment of gender and environmental issues for the applied use of critical systems thinking. A set of FST principles emerged from this process that are summarized in Table 1 below.

FST principles	Meaning
Adopt a gender sensitive approach	Gender sensitivity makes visible women’s distinctive experience. It is driven by the concern that the experience of women is either unimportant or parallel to men.
Value voices from the margins	Seek to hear and gain insight from the perspective of non-expert and marginalised people, particularly where

	claims of ‘value-free’ science serve to naturalize and sustain privilege.
Incorporate the environment within research	A call for the political engagement of the non-human realm. Consider how nature, animals or living systems, are present and have a voice in the analysis.
Select appropriate method/ologies	Use tailored, responsive and transdisciplinary methods to address multifarious problems.
Undertake research that promotes plurally desirable and sustainable social change	Avoid decontextualized top-down change. Research and its outcomes are enhanced when it is responsive, grounded and locally embedded.

Table 1: Summary of the FST principles and their meanings adapted from [5].

Cultural Ecofeminism

Ecofeminism is a branch of feminist thinking that seeks to include species other than human as a primary objective of enquiry [7–19].

Cultural ecofeminism emphasizes the role of social construction and therefore critiques the linguistic basis for social norms, categories and ultimately, behaviours and attitudes that gives rise to a ‘patriarchal order’ [20] – the system of beliefs and hierarchical structures that relegate women to a subordinated position to men. Seen as a binary construct, that is replicated in dominant/subordinate couplings (i.e man/woman, culture/nature, mind/body, rational/emotional) the cultural ecofeminist goal is to transcend the binary and liberate the subordinate, but to do so in such a way as not to superficially reverse the structure. A simple reversal promotes no real change in the structural coupling processes responsible for the original binary.

Cultural ecofeminism tries to avoid essentializing binary couplings in its treatment of gender. Cultural ecofeminism recognizes the binary as a product of discursive practices and not rooted in a biological determined agency where men and women’s character naturally align with biological traits. However, this hetero-normative stance is ill-fated. Gender analysis is remiss without reference to the rich variation of identities and intersex possibilities that materialize outside the two fixed options of male or female. This is the first of several necessary revisions of FST and its principles.

Secondly, albeit a sincere effort to use FST to alert readers to the risks of objectification, a trace tendency to ‘other’, is present. ‘Othering’ is a term used to describe how we might view a person or group of people as fundamentally different from and therefore separate from ourselves [21] The principle of ‘valuing the voices of Others’ supports the intention to “challenge harmful or naïve [subject object dualisms]” as a moral imperative. To do this FST draws upon the notion of ‘indistinguishability’. This is the idea that only by distinguishing yourself from an ‘Other’ sentient or human being can you know who you are [18]. Yet, on reflection of the FST principles, one may ask if this line of thinking can be traced

back to a colonial mindset where the existence of 'self' requires the fixing of an 'Other' in a binary opposition? If so, does the principle of 'valuing the voices of Others' merely suggest a structural reversal? Is this a liberating praxis between self and Other? Can relations be emancipatory within the binary? Or are there alternative ways to see the self and Others' boundaries overlapping and intersecting? Would this reduce tendencies towards the misuse of labels or unconscious homogenization of Others? The significance of this concern is captured by Donna Haraway's "god trick" ([22], p. 74) where "... the privileges, interests, biographies, fetishes, and investments of researchers typically remain subtext, buried, and protected" ([22], p. 75). In the paper *Describing a feminist systems theory* [5], a number of respected authors are attributed to the laudable effort to avoid "research driven by political interests" which are "likely to assume the positions of the privileged group, [and] in turn naturalizes and sustains their privilege" [6,23–26]. Yet this is precisely the dilemma with FST. Its use of a structuralist epistemology can do no more than seek to replace one hegemony for another.

Environments and anthropocentrism

A strong environmental ethic underpins FST. Sentient 'nature' has a presence on the margins of all human activity and is "... an active participant in shared and co-constituted value experiences" ([5], p. 560). The FST principle of 'Incorporate the environment within research' is about giving credence to the environment as a vital stakeholder and giving 'voice' of the non-human realm. The following quote demonstrates the importance of human and animal relationship:

"Rich relationships with pets for example are dismissed as sentiment but they play a role in co-constructing human experience. Animals are co-witnesses to the world and respond to daily physical and moral phenomena; tragedy, suffering and vulnerability, reinforcing our own moral experiences just as other humans do [27]. Plumwood [18] described the sophisticated higher-order intentionality of animals at play with humans—feigning disinterest before mounting a surprise attack; learning different methods of approach; sulking if the animal does not win a game. She stated that 'there are so many examples of this kind, which so many people experience, that one has to wonder whether theorists who strive to dismiss them have any knowledge of animals outside the laboratory' ([18], p. 182)." (Quoted in [5], p. 560)

As significant as the intention to be inclusive of nature, problems arise in the practicality of how one gives 'voice' to entities and ethically how to do so when all experiences of nature, whether these are of pets, pristine ecological systems, endangered species or public parks are mediated through the human mind? The definitions and meanings of things found in Nature and the world are grounded in symbols through which meaning is subjective phenomena. The FST literature had not sufficiently addressed this.

Recent collaborations have further explored how the non-human realm can practically be afforded a 'voice' for systemic intervention practice [28]. A review of the emerging field in behavioural ecology shows remarkable cognitive capacity of plant species to perceive their environment and establish their own subjectivity [29]. On this basis it can be argued that practitioners can account for and better understand the co-constitutive and relational agency between human and non-human species using Ulrich 'notion of 'witnesses' for example. Stephens, Gagliano & Taket [28] call for the CST commitments [30] to

be reconsidered so that practitioners and scholars may regard ecological entities and systems as valid stakeholders [28,31].

Pluralism and consensus – the problem of irreducible difference

This discussion then leads to the question of pluralism. Pluralism was debated in CST journals and at conferences over several years [32–36] as CST thinkers grappled with the Habermasian goal of consensus-making while the thorny matter of irreducible and irreconcilable difference was unresolved. What to do with situations where people (or non-humans) will not see eye to eye? The mixing or partial partitioning of methods may help produce a consensual agreement and according to Midgley [32–36]: “Nobody... [in systems thinking] now questions the utility of methodological pluralism...” (p. 151). The FST principle: *Undertake research that promotes plurally desirable and sustainable* resides on certain assumptions including that eclectic concepts, ideas, theories and practices can be hashed together in the name of 'mixed methods' or pluralism. Midgley cautions against a relativistic, anything goes approach [37] as an alignment between the ontological foundation, selected methodologies and applied methods, is necessary.

The GEMs

As some of the discussion above suggests various projects have emerged to unpack the themes contained within FST and as such the FST principles have been revised and reshaped to emerge in a new theoretical framework. The most significant development has been the writing of the *Inclusive Systemic Evaluation (ISE) Approach for Gender Equality, Environments, and Marginalised voices (GEMs): A new approach for the SDG era* (here on the *ISE4GEMs*) [3]. The ISE4GEMs brings together systemic thinking for applied evaluation using a core framework for complex and intersectional social analysis, the GEMs. This stands for Gender equality, Environments and Marginalised voices. The remainder of this chapter will compare the GEMs framework's similarity and differences with FST and the shifts in knowledge these changes have produced.

The first significant change has been around the theoretical and applied goal of certainty. The GEMs were conceived in the context of work done to develop a systemic evaluation methodology. It therefore embeds the concept of emergence more explicitly than FST had done. Emergence is not about trying to predict what will happen; rather it is about being agile and acknowledging what is actually happening (planned or unplanned) and to be mindful of what might happen [38]. To apply the theory, ISE4GEMs practitioners are encouraged to anticipate and respond to uncertainty from the outset. They are encouraged to think about how emergence may have shifted the system from the desired boundary and be responsive to pursuing unanticipated material or ideas.

When a foundational theory is constructed with a certain fixed-ness to categories, such as the binary of man-woman, another 'certainty' is constructed. As discussed above, however, this is an artificial binary. Gender is a key dimension in the GEMs framework. When developing the framework it was seen as important to ground gender in a fluid and inclusive conception. Unlike the FST principles where gender is

grounded in a man/woman binary, the GEMs is less rigid and therefore, less limiting for the GEMs practitioner.

Intersectionality is an important influence of the GEMs framework which FST does not account for. Intersectionality views social divisions, or categories, intersecting with each other in unique and not always predictable ways [39]. Less rigid thinking of social categories requires the need for reflexive thinking and co-participation about the intersections of social divisions. The risk of Othering [40] is then reduced by these processes. When texts are constructed "... collaboratively, self-consciously examining our relations with/for/despite those who have been contained... we enable resistance to Othering" ([22], p.72). The framing of intersectional social divisions encourages extrapolation of one's interaction *with others* to understand how an individual's experience is both shaped and formed in non-linear and unpredictable ways. These principles are explicitly emboldened in the ISE4GEMs.

There is a need to work with stakeholders to determine who the marginalized voices are, human and non-human (e.g. flora, fauna, values, ideas), and to ask questions about differences that matter, when, where and how. This is to develop responses and actions that are localized and supported, and build capacity of groups to become their own advocates and identify their life concerns [41]. This brings to the fore the vitality of participatory practices to ground difference, marginalization and oppression in ways meaningful to participants and represents the paradigmatic shift needed away from allowing those with power and privilege to define the terms and character of difference and oppression [42]. The involvement of a wide field of stakeholders and participants integrates the best available knowledge, reconciles values and preferences, as well as creates ownership for problems and solution options [43].

The FST principle of positioning nature as central to social analysis was important to FST and its roots in eco-feminist theory. The principle 'Incorporate the environment within research' has been an intended inclusion into the GEMs framework as 'Environments' are considered an intersectional dimension, extending intersectionality theory beyond the human-only realm. This makes salient the importance of considering how environmental systems are affected and impact social development programs. As mentioned above, more work has been done to secure a practice of utilizing witnesses to assist practitioners. This dimension of the GEMs framework also challenges our understanding of the term 'sustainability', substituted by terms such as 'environmental health' and 'inhabitability' both referents to the physical capacity of a socio-ecological system to support life and planetary health [44]. This dimension encourages evaluators to draw from the knowledge, skills and expertise of transdisciplinary and pan-disciplinary (beyond the academic institution) participants including local indigenous people or place-based occupants, as well as scientists and informal and formal decision-makers. Such work is vital for understanding the social inhabitability of place and the constructs (i.e. racial, gendered, ableism) that intersect with material and social environments rendering some places inhabitable for some but not for others [45].

Underpinning the GEMs is an attention to ethical practice. The boundaries of ethical principles, particularly respect, moral responsibility and justice, encourage conversations about the connections between the research processes and the use of findings [46]. Applying the GEMs requires a continuous reflexivity towards the boundaries established around one's focus of analysis and awareness of the shifting and dynamic nature of social phenomena. Race, ethnicity, language, values, social class, religion, gender, sexual orientation, ability, age, education, immigration status, or geographic location are not fixed

categories and the task then is to "... appreciate the complexity of [their] meaning in a specific context" ([47], p. 76).

The ISE4GEMs also represent a plurality of social theories, strategies and concepts. The process to ensure a non-relativist approach to their inclusion was to critically engage with the literature by making boundary judgments about the content and value of the knowledge being considered. There was an effort to ensure ontological coherence and cohesion. Contested interpretations were explored and explicit inclusion and exclusions decisions were made.

And finally, it is important also to note that the GEMs dimensions may not always have equal relevance. One GEMs dimension may be more prominent than another given the context, vulnerability of human/non-human voices, objectives and intentions of an intervention. The ethical mandate is one of an inclusive and mindful analysis, considering each dimension and determining its relevance. As Anthias [48] states: "... it may be that the force of one category at a particular point is much stronger and more manifest than others" (p. 129).

The final principle of FST that has not yet been mentioned in this chapter is to '*Undertake Research Towards Social Change*'. This principle was retained throughout the GEMs. The ISE4GEMs is another strategy, device or tool to undertake action-orientated philosophy and in particular, feminist-informed social action. The framework maintained the principle's concept while developing its pragmatic value. Albeit the various changes that have been made the following passage remains true for FST and the GEMs:

"FST encourages questioning of how 'reality' is socially constructed through a series of chronological interactions and political episodes. FST advocates both a political awareness and consciousness at the theoretical level, and a commitment to taking action (intervention) on issues of mutual concern. The list of issues is unfortunately extensive and some of the issues include: sexism, racism, classism, heterosexism, naturism, environmental abuse, environmental pollution and the effects on women/children/poor, dislocated indigenous peoples, anti-environmental exploitation alternatives, women's and indigenous peoples' experiences with the non-human world." ([5], pp. 563-564)

Further developments

The GEMs analytical framework has been well received in the global development sector by academics and practitioners. A GEMs analysis can be applied to cross-cutting issues such as gender based violence, post-conflict recovery, climate change and disaster response and socio-economic wellbeing. The framework is seen as providing tools for a more holistic analysis of any problem structure, for example within the United Nations' *2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs)* [49]. The often complex and sometimes chaotic intersecting combinations of factors and variables between such as SDG#6 - the impact of clean water and sanitation and SDG#4 - access to quality education; or SDG#5 - gender equality and its overlap with SDG#16 - to promote peaceful and inclusive societies. Paying attention to sanitation, the needs of women and girls or other vulnerable groups, and improvements in social justice, peace, reductions of hazardous chemicals and

materials into water sources, are all intersecting realities which demand attention individually as well as holistically to form a better understanding of how best to collectively respond.

The value of a GEMs analysis is being seen in other distinct sectors that deal with daily complex issues, including, and perhaps even surprisingly, in the medical specialization of anesthesiology. There is a growing awareness about the salient points of clinical decision-making in operating rooms, perioperative practices and workplaces (environments) which in some studies have shown a difference in risk-taking behaviour based on gender, potentially impacting patient outcomes, practitioner wellbeing and operating room efficiency [50,51].

The theoretical seedling that was once FST has now bloomed into a distinct sapling which relies on the collective wisdoms and practices of many seeking to address complexity and prioritize issues using three pressing domains of gender equality, environments and marginalized voices. Ongoing application of the GEMs framework is encouraged as a part of a global effort to conduct more inclusive and responsive social and organisational change.

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