

# Livestock Management, Masculine Care and Cognitive Ecology: An Ecomasculine Approach to John Connell's *The Farmer's Son*

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## Abstract

Ecological masculinity has been considered as a parallel movement to ecofeminism. It intends to investigate the role played by men in spatially coexisting with nature. Furthermore, it meditates on envisioning how men belonging to various categorical masculinities, nurture the natural environment in augmenting atmospheric stability. As a domain, ecological masculinity eschews the hegemonic approach towards nature by establishing a symbiotic relationship with biotic and abiotic components in an ecosystem. In compliance with the literary sphere, this movement embodies certain malestream norms which appeal to ecological specifications such as the insightful practice of Earthcare, ensuring ecological integrity, and regenerating natural resources. This paper examines John Connell's *The Farmer's Son: Calving Season on a Family Farm* (2019), an eco-autobiographical memoir as a frame of reference to spotlight certain eco-masculine intertextualities such as animal husbandry, glocal sustainability and psycho-cognitive objectives. This paper employs the theoretical frameworks of Karla Elliott's Caring Masculinities and Susan Signe Morrison's Waste-ern Tradition in mapping the eco-masculine praxis embedded in the prototypic conceptualisation of 'eco-man's husbandry', through the rational quotients of livestock management, masculine care and cognitive ecology.

**Keywords:** sustainability, hegemony, artificial insemination, pathogens, archetypes, cognition, patriarchy

## 1. Introduction

John Connell's *The Farmer's Son: Calving Season on a Family Farm* (2019), can be regarded as the confessional account of an Irish author about the bittersweet return to his Birchview farm in County Longford for six months. This eco-autobiographical genre elaborates on the coalition of eco-narratives and the narrative self through the lens of self-memoir. The novel proceeds with a chronological narrative style and it concurrently deals with how Connell finds it onerous to draft a novel, amidst carrying out his routine duties on the farm. This eco-narrative has encapsulated his journey as an eminent farmer and writer. The expository portion of this novel contains two epigraphs: the first by an Irish Poet, Patrick Kavanagh titled "A Christmas Childhood" and the second by the American transcendentalist Henry David Thoreau entitled 'Walden'. Kavanagh reminisces about the aesthetic serenity of the farm garden, from where he had spent his childhood days whereas Thoreau elucidates the feasibility of leading a simple life associated with sheer nature by embracing the value systems of solitude, self-reliance and integrity. The plotline of this novel revolves around the births, deaths, breeding, feeding, caring, and bedding of livestock and the thematic attributions include self-nourishment, environmental sustainability, and pathogenic virulence. This eco-centric novel implicates a postpatriarchal take on livestock in rural Ireland. In addition to the narration of life on his family farm, the author anecdotes the evolution of cows and the Celtic-pagan mythologies to espouse his inclination towards the traditional cattle framework. With much regard, the experientiality of Connell's father as a farmer has been embodied in the title of this novel, by addressing himself as a son of a farmer. Moreover, this memoir perennially postulates the 'way of life' rehearsed on Irish farms and it spotlights the kinship between the author and his livestock by accentuating the ethics of cattle farming. Eco-masculine consciousness has been incorporated into this novel, through eco-modernist, ecophilic, and ecosophical cattle-farming approaches.

## 2. Literature Review

Paraschiv (2021) validated Connell as a posthuman farmer in terms of awakening anthroparchal interactions between humans and non-humans, gender relations, patriarchal violence etc., And it focuses more on the complicated implication of anthroparchy in discussing the contemporary approach to animal husbandry. The masculinity of Connell seems to have positioned beyond the constraints of hegemonic patriarchal influences but the narrator's inclination towards non-mechanisation of farming practices, provides further scope for the researcher to explore more on the dialogic nature of masculinity and the phenomenon of 'care' in actuality. Therefore, the technique of animal husbandry performed by Connell can be approached in a newer space in terms of his propensity towards essentialised earth-honouring.

### 3. Methodological Framework

This article attempts to critically approach the objective entities of ‘livestock management’, ‘masculine care’, and ‘cognitive ecology’ concerning certain nuances embedded in the sustainable maintenance of livestock. Livestock management reviews the living conditions of cattle in rural Ireland and the significant regeneration of ‘waste’ in a cattle farm, using the definitive traits drafted by Susan Signe Morrison, on elaborating the ‘Waste-ern tradition’. Masculine care investigates the complementary relationship between the farmer and the cattle by means of exploring rational and resonating masculine traits. By implicating Karla Elliott’s conceptual framework of Caring Masculinities, it concerns the empirical understanding of both hegemonic and non-hegemonic masculinities with respect to the ecosophical substructure. Cognitive ecology proportionally deals with human-cattle cognition in terms of investigating physical and mental constituents, attributed to the identity of ‘Eco-man’ as a whole. Altogether, their synergistic collaboration results in the fragmental analysis of ‘eco-man’s husbandry’ and as a discourse, it can be identified while mapping the ecological kinship of man.

### 4. Discussion

#### 4.1 Livestock Management

John Connell’s family farm consists of several crops of cattle which account for the production of dairy products, chicken, beef, mutton, etc., and is widely recognized as a ‘Birchview’ farm as it is fenced by the Birch trees. It is situated in County Longford of North-Central Ireland. O’Mara et al., (2021) emphasized the efficient management of Irish ruminant livestock by providing an organic animal diet (grass-based grazing), maintaining accurate levels of stocking rate, adequate availability of freshwater, periodical cleaning and bedding of cattle to avoid the penetration of harmful infectious agents or any other microbes; these conventional benchmarks as suggested by O’Mara et al., (2021) moulds the biodiversity of Irish farmland as a whole. In coping up with contemporary livestock biotechnology, the author is more empirical in implementing animal genomic selection (to achieve a ‘five-star’ herd), feeding automation (feeders used along with tractors), artificial insemination (through which the purebred is produced), etc. While considering the sociological implications of rural livestock management, Brock et al., (2022) enumerated the importance of the cattle sector in its productive economic contribution to the agri-food sector of Ireland. As a whole, the dairy farms followed a two-fold approach in milking and fattening the cattle for market purposes (Brock et al., 2022). Beyond this, the ‘animal welfare index’ plays a significant role in enhancing the welfare of farm animals in satiating consumers’ concerns regarding the source of animal products (Lawrence et al., 2022). The factors influencing the efficient adaptation of animal husbandry are ‘rural sociology’ (exploring the socio-political dimensions in rural Ireland) and ‘material ecological aesthetics’ (tracing waste management on the grounds of its utilitarian values). Its efficient functionality lies in measuring a farmer’s physical and mental involvement towards the structured enhancement of livestock.

##### 4.1.1 Rural Sociology

The sustainable dairy and meat production of a rural Irish farm is subjected to both traditional and modern farming measures including the status quo of a particular period. Connell’s cattle farm adheres to ‘extensive grass-based ruminant production’ and the animals feed on the organic pastures of natural herbage and semi-natural grasslands. As a part of featuring eco-man’s husbandry, this novel features how men and women coordinate the day-to-day activities in a farm and in a societal frame, it widely acknowledges the farming pattern of the Irish livestock community. O’Donovan et al., (2021) elaborated on how the grazed grass has been serving as the cheapest source of feed nutrients for ruminant livestock in Ireland. The author ignores the method of intensive livestock farming/factory farming as it primarily aims for increased productivity in terms of altering the natural course. It is evident in what the author reflects: “The suffering of the cow was just a foreshadow of the danger of intensive farming, for when BSE crossed the species barrier from animal to man, it took the form of variant Creutzfeldt-Jakob disease, or vCJD” (Connell, 2019, p. 207). As a part of ‘extensive livestock husbandry’, the habitual tasks of Connell in his family farm include: “feeding, health care, grazing/tethering, milking, cleaning livestock shed, establishing pasture and marketing” (Mollel and Mtenga, 2000). Saugeres (2002) reviewed how women in farming families have been restrained from getting involved in farming activities. In response to this, Cush et al., (2018) acknowledged the possible indulgence of women on Irish farms by means of investigating the overlapping elements of gender, identity and agency in ‘Joint Farming Ventures (JFVs)’. It implies how the family farms in the rural farming landscapes function as a focal point for men and women to engage collaboratively in marking the “departure from patriarchal agriculture” (Cush et al., 2018). Thence the women who’ve been assisting men in rural Irish farms possessed a better understanding of conventional husbandry techniques in making deeper connections with cattle. And is evident in the author’s description of his granny’s interaction with rheas and llamas: “Granny talks to all the creatures and they know her by sight and wait as she brings them each a special treat: lettuce for the rheas, and carrots for the llamas. They know, I think, that she is old, and are never boisterous or gruff when she appears. They know they must behave.” (Connell, 2019, p. 77). Galiè et al. (2018) suggested certain qualitative methods to derive context-specific insights while advocating the empowerment of women residing within the livestock sector. And the qualitative dimensions include the decisional authority, assessment of nutritional levels, scrutinization of excessive consumption of resources, financial management of agricultural productivity, and strategic management of time. It can be inferred from the boundless contribution of Connell’s mother in establishing their family farm and the timeless assistance she has rendered throughout. Also, these pastoral magnitudes of livestock can be attributed to Mary Ann Tynan, who happens to be the nearest resident to Connell, and the successful female farmer who possessed two farms alongside.

The farmers showed their ambivalence in incorporating certain modern techniques suggested by the Irish government. For instance, the five-star herd system introduced by the ‘Department of Agriculture and Food’ (DAF) in evaluating how the genetic breeding system

pushed the farmers to seek artificial means to sustain their livelihood by creating newer cross-breeds. Owing to this, the traditional farmers remain unconcerned as it hasn't favored self-breeding: "Rory, our neighbor, calls it a monopoly by the genetics companies to impose their sperm banks on farmers. Perhaps there is truth in that." (Connell, 2019, p. 123). On a positive note, the genetic variation (Evans et al., 2007) of these breeds, is studied in indicating the easing level of calving according to the Calving Traits Index. Continental breeds, especially Limousin exhibited superior characteristics in terms of growth patterns, quality of calf, and the carcass which ensures higher values in Weanling Export and Beef Carcass (Evans et al., 2007). And to the author, Limousin is considered to be the 'backbone breed' of a farm, due to its 'good ratio of milk to meat' (Connell, 2019, p. 33). Moreover, this on-site evaluation of beef production farms is concerned with examining the number of hectares and the total number of animals stocked in a herd (Lawrence et al., 2022). The "low profitability and a high reliance of farm incomes on direct payments" are considered to be the challenging factors in the time ahead (Conefrey, 2018, p. 17). Watson et al., (2017) examined the potential risks and the occupational stress faced by Irish farmers, and the major findings include machinery accidents, maintenance of chemicals in dairy farms, and even the ignorance of safety measures by the young farmers. Conefrey (2018) traced the resurgence of Irish agriculture and its notable contribution to the national output from the early 1990s to 2017 amidst the aforementioned challenging factors.

Hultman and Pulé (2018) defined the term 'mythopoeia' as "the capacity to create myth or share a traditional story" (Connell, 2019, p. 99). The author alludes to ancient Irish agrarian mythologies in order to trace the impact of animal husbandry and livestock management insofar. It acclaims the archetypal portraits of 'Green Man' in a prototypical fashion, and his identity has been elevated to be the representative of nature as a whole. He also implicated the new mythological connectivity between the bulls that existed across the continents during the Ancient and the Bronze age. Thus, it also reflected a few critical insights by providing an ontological view of the euro-pagan mythical framework and its connotations with Irish culture. This re-mythological narrative of the bull has been shared to emphasize its deeper connections with both the personal and the spiritual life of man, and even as a part of 'essentialized earth-honouring' in emphasizing the sheer eco-balance between humans and animals. Moreover, the author's connection with the bull on his family farm and the mythical connections with the bull, corresponds with his attempt to explore transpersonal psychology in defining the traits of eco-theology. One of the key aspects of this mythopoeic movement lies in its struggle to restore the depths of a deep green environment by means of personal and organizational levels. Furthermore, the author has investigated the past, present, and future relics involved in the human and non-human archetypes of livestock as a whole in exploring the deeper connections of a man with the land and the cattle.

#### 4.1.2 Material Ecological Aesthetics

Morrison (2015) derived two propositions in approaching 'waste' as a literary element: material and metaphoric. Marland and Parham (2014) distinguished between the juxtaposing characteristics in human-cattle ecology: material waste/dung on an ecocritical note and the material ontology which concerns the corporeal dimension of the human body. This subdivision expounds on the materialistic aspect of wastes generated in livestock, according to what Morrison (2015) postulated in the 'waste-ern tradition'. The extensive grass-based livestock management comprises the process of converting animal wastes into productive biofertilizers which accounts for environmental stability: "Dung produced by farm animals constituted an item to be manipulated by humans for their own amelioration" (Morrison, 2015, p.76). These bio-fertilizers, on further regeneration and recycling, can be distributed as cattle feed and is indeed a cyclic process. On considering the eco-sustainable parameters involved in a family farm, O'Mara et al., (2021) reflected on the reliability of grazed and conserved forage embedded with "soil organic carbon content, feed self-sufficiency (including protein), amount of human-edible food in the diet, GHG emissions per kilogram of product (GHG intensity, defined as kg of CO<sub>2</sub> equivalent per kg of milk or meat), and landscape diversity" in cultivating pasture-rich dairy foods and meat products. Thus, it enables the researcher to acquire a material ecocritical perspective in unravelling the potential benefits of manure recycling with respect to modern agribusiness.

Livestock Manure Management can be considered a traditional way of managing waste in terms of reusing it as an ameliorating material for summer crop yield: "Everything on a farm has a purpose and a future use, every action is part of a cycle: the dung of winter will bring the grass of summer" (Connell, 2019, p. 22). The cleaning and bedding of sheds with fresh straws for cattle should be performed habitually to create the farm, disinclined to zoonotic pathogens such as hookworm infection, cryptosporidiosis, E. coli infection, hydatid disease, psittacosis and yersiniosis (Beeler and May, 2011). Morrison (2015) proposed the rhizomatic thinking of wastes in instigating deeply emotional reactions while mapping out the potential horizons of the waste-ern tradition. For instance, the author narrates how he feels deeply spiritual while cleaning out the cattle dung and it affirms the eco-theological approach of interrogating the self through the lens of spiritual homeopathy, which results in manipulating the human perception of reality. It affirms the practice of 'trash meditation' which deals with considering ourselves as a particle of dust along with all other dirt in a vast universe. It is indeed a process of what Morrison (2015) hypothesized: "perfectionism worships the sanitary, all the while producing filth" and is a sign of being a 'caring masculinity' in terms of staying environmentally optimistic.

Deleage (1989) discussed the twofold problem involved in the 'rising cost model' by explaining how the productivity of raw materials simultaneously leads to the consistent accumulation of wastes on the other end. Periodical agitation of the conglomerated manure is a beneficial process of creating organic fertilizer but it stirs the potential death risks when toxic gases such as hydrogen sulfide and methane are emitted. Accordingly, the author recalls how a farmer's family perished in liquefying the stored manure by the process of agitation to spread it across the fields through the slurry tanker. The ultimate reality embedded in the existence of human beings is designated with 'death'. Connell captures this cognizance by corroborating the rustic perception of death: "To live in the countryside is to accept death as normal" (Connell, 2019, p.77). But the death of cattle instigates adverse emotions in a farmer as it hinders both the livelihood and the

balance of a farm. On the other hand, the dead corpses of the cattle were given to the slaughterhouses to have the final share of the profit (as a commodity) in sustaining their livelihood. The efficient management of slaughterhouses can be marked by means of investing the leftovers of the meat in the process of manufacturing “cosmetics, biofuels, biodiesel, tissue engineering, textile and composite application” as it serves as a source of “protein, fat, keratin, collagen, gelatine and mineral matter” (Limeneh, 2022). With the aim to speed up the surplus production of cattle meat, the EU farming law enforced the use of antibiotics (instead of growth hormones) to be injected into industrial livestock. Beyond this, the factory farmers purchased the bone-meal food which contained the meat remains of cows and sheep from the slaughterhouses. They were given as a protein to the herbivorous cows to fatten the body of the beef. But this waste turned harmful by causing Bovine Spongiform Encephalopathy (BSE) which is widely acknowledged as mad cow disease. Dameron (2013) approached it as a prion disease in analyzing its rapid impersonation of some progressive dementias in the nervous system. And indeed, it became an epidemic among those who ate the sick meat and succumbed to the neurotic disease “Creutzfeldt-Jakob disease.” Furthermore, Brock et al., (2022) traced how it led to the introduction of European Animal Health Law (AHL) regulations in the eradication of BoHV-1 in achieving disease-free status. On the whole, the aesthetical norms of “utility of uselessness” as suggested by Morrison (2015) contradicts the suspension of stability between the binary oppositions of unclean and clean, dirty and pure, unsanitary and sanitary, etc. And these aforementioned traits differentiate the livestock practice of the eco-man farmer from a normative farmer.

#### 4.2 Masculine Care

Roy et al., (2017) probe into the psychological well-being of farmers by questioning how farmers belonging to both hegemonic and non-hegemonic masculinities, remain resilient to the crucial situations of climatic change, financial losses, mechanized farm activities, etc., Initially the phenomenon of ‘care’ has been treated as a non-masculine paradigm due to the predominance of hegemonic discourses on masculinity, and so a rudimentary attempt has been made in ‘Critical Studies on Men and Masculinities’ (CSMM) by approaching it as an inherent virtue in humans. As a result, the phenomenon of ‘care’ can be introspected in multiple ways, corresponding to its conductivity in social spaces. Furthermore, Elliott (2015) makes an attempt to approach it as a ‘practice-based framework’ to ascribe it to various categorical masculinities. In this novel, Connell’s enthusiastic indulgence in enhancing the productivity of livestock can be correlated with the strategical embodiment of ‘care’. It also projects the biotic ecosystem embedded with flora, fauna, and land as the receptors of masculine care. The author has thoroughly entrenched his role as an “Eco-man” in abiding by the norms of caring masculinity, apart from being a pluriactive farmer (Saugeres, 2002). Elliott (2015) traced the integration of non-dominant value systems such as positive emotion (ecosophical), interdependence (care flow between the humans and the cattle) and relationality (subjectification of personal and social factors), in an attempt to map down the significant traits of ‘caring masculinity’. This practice of ‘care’ helps men to enrich their lives in terms of physical, emotional and psychological ways. Saugeres (2002) elaborated on how farmers (exclusively men) tend to establish the imagined relationship between them and the farming landscape. And it results in altering the course of farming masculinity based on the productive level of a farm. Laoire (2002) analyses how the changing nature of rural Irish farming masculinities can be traced through the adaptation of new farming techniques. This ethical framework of masculine care towards animals can be marked by receptivity, relatedness and responsiveness. And is highly interpersonal in terms of studying it through the lens of animal husbandry.

##### 4.2.1 Monologic and Dialogic Masculinities

While considering livestock management as a research paradigm, one should understand the domesticated triangle established among the cattle, the techniques of animal husbandry, and the identity of a farmer. The identity of Connell as a farmer is oscillating between the standards of traditional and modern animal husbandry; hence, it is highly discursive to decode this dual framework. This ‘traditional-modern dualism’ as suggested by Laoire (2002) is subjected to socio-cultural phenomena and as a result, Connell’s livestock seems to have strictly adhered to the prerequisites of the Irish rural cattle-farming framework and the eco-modern technicalities in contemporary pastoral farming. Peter et al., (2009) bifurcated the farming identity of men as ‘monologic’ and ‘dialogic’ masculinities while exploring the social framework in agricultural/rural masculinity; the episteme of ‘monologic masculinity’ coheres with traditional farming techniques by being characteristically hegemonic and it also accredits the mechanization of farm activities. On the contrary, ‘dialogic masculinity’ engages with other farmers to ensure the sustainable maintenance of one’s farm by implicating practical farming techniques and is non-hegemonic in nature. Beyond this, the physique of a farmer is symbolically attributed to hegemonic traits in terms of being strong and traditional (Roy et al., 2017) and is considered to be the notable qualification of being a ‘monologic’ farming masculinity. Naturally, it tends to nullify the non-hegemonic traits of a farmer by forcing oneself to correspond with the stereotypical hegemonic masculinity. In a generic sense, it becomes arduous for a farmer to confine oneself within the proportional boundaries of monologic or dialogic entities. Peter et al., (2009) described this oscillatory conscience as: “Each male farmer experiences a constant tension between monologic and dialogic masculinity” (Peter et al., 2009).

As a young farmer in his late twenties, Connell intends to function independently, without seeking constant assistance from his experienced father. But this dialogic approach of independence seems to contradict when he determines not to walk away from Irish farm traditions (monologic) and it is explicit in his conservative reason to keep horses on a cattle farm. The author is monologic in terms of adapting the outdated traditionality to revere Irish farm culture and is dialogic in terms of implicating few changes through his subjective will. In addition to this, the monologic identity of his father can be analyzed through the lens of patriarchy. Brandth (2019) proposes a survey analysis on how agricultural masculinities practice fatherhood in terms of categorizing it as ‘tough’ and ‘tender’. On reviewing elaborate interconnections between the antithetical concepts of rural/agricultural masculinity as ‘tough’ and the phase of fatherhood as

'tender' (Brandth, 2019), it becomes explicit that the hegemonic rural masculinity can be deconstructed beyond being a homogeneous entity concerning privilege and power. The relationship between the author and his father can be subsumed under the framework of 'internal hegemony' (Christensen and Jensen, 2014) and the hierarchical power standards flow from the latter to the former. This can be explicit in situations while making significant decisions regarding cattle farming. Psychologically, the 'masculine ego' finds its special place in their conflicts as they weren't willing to confess their insecurities in front of each other as this would end up justifying one's intelligence over the other. Though this intricate level of dominance between masculinities (internal hegemony) has been negotiated later, it would hinder the habitual serenity of the farm in several cases. Patrilineal inheritance occurs in this farm, not by means of implicating the hegemonic authority but as a responsibility that the author could take over from his father. Yet his intention is not to benefit himself out of the patriarchal dividend. In addition, he establishes himself as a pluriactive farmer (Saugeres, 2002) whose involvement in farming is meant to augment the standard of living: "Mam and Da have supported me for six months as I try to make it in this undefined world of literature. I must return that favour now and support them in the very real world of farming." (Connell 2019, p. 109). He even aspires to be an organic farmer in the future by not artificializing the rearing of cattle. Connell fulfills the norms of being a non-hegemonic masculine figure, by not imposing dominance over living and non-living entities. It is synonymous with what Elliott (2015) implies as the rejection of domination while examining the associated traits of care. He also embraces the fact of women establishing themselves as successful farmers as it paves the way for him to learn their advanced cattle-farming techniques and also in ensuring gender equality. Throughout the novel, the author recollected numerous circumstances which imbibed a series of disagreements between the author and his father. It is anthropomorphically personified by the author as the quarrel between two bulls on a farm. Such argumentative discourses concern their decisional preferences during tough times on their family farm. Though the author suspends himself from practising materialistic farming, he has been forced by his father sometimes to act in accordance with the norms of agri-business. In terms of combining both internal hegemony and fatherhood, the masculinity of Connell's father turns out to be 'hybrid' in nature. Laoire (2002) initially framed a proposition to hybridize fatherhood and rural hierarchic dominance within a farming circle. Inferentially, Connell's father is monologic in terms of his fatherhood dominance towards the author and dialogic in terms of his inclination towards the Western lifestyle. His father is imperative in terms of sticking to the traditional methods of farming and cattle breeding and remains reluctant to implement the modernized techniques of the author in enriching agricultural productivity. It occurs especially in some cases when the author failed to cultivate a successful outcome in operating a bloated lamb using the contemporary scientific technique. In the denouement of this novel, Da (his father) assumes the nature of non-hegemonic masculinity as a mark of transition by calling his son to the bog. Yet the certainty of shedding away from internal hierarchy cannot be assured. As a whole, their farming identities appeal to both monologic and dialogic paradigms.

Post-war industrialization has mechanized certain regulations in animal husbandry by means of cattle feed, cattle farming, pest control, parturition, etc.,. In the case of examining the techniques embedded in animal husbandry, the author elucidated the distinctiveness of both European and American cattle farming on a global level. Concerning the recent advancements in the fields of biotechnology and genetics, American cattle farming sounds more advanced than EU livestock farming in enriching the growth of cattle using certain bio-technically advanced frameworks such as selective breeding, feed lotting, injecting vaccines and antibiotics, and protein-rich fodder in order to generate maximum output in catering to their hyperconsumerist culture whereas the European adheres to the 'monologic' standards without inheriting these advancements as the quality becomes their primary concern. Likewise, the author also embraces the farming ideology of the Fulani people belonging to Africa as they have been still adhering to the traditional farming techniques which collectively become a part of the monologic type of farming. The idea of dialogic masculinity can be extended further in terms of measuring its sustainable horizons through experimenting with new farming techniques and also being open about how they're expected to be practical by withering away from venerable traditionality in farming. The eco-modernist glimpse can be understood in terms of adapting certain modern techniques by farmers to enrich the productive value of their farms. The family farm possessed by Connell concerns both the agrarian and industrial norms in raising cattle (Barlett, 2004). Amidst burgeoning bio-technical advancements in the field of agriculture, a farmer is expected to revisit and revise his farming techniques. The sustainability of the farm is hindered by certain pathological factors such as pneumonia, listeria, scour, etc.,. Such pathogens might proliferate at a higher rate from one cattle to the other, even before the farmer could sense its abnormality. The author has also been victimised similarly when he turned his myopic view to the ailing calf. During those times, finding a vet would be a tough case for farmers, and hence they tend to store the medications prescribed by the vet long back, despite not being aware of their intricate medicinal effectiveness; they would provide the same for cattle as it gained their trust by proving its recovering factor during an emergency. By fluctuating between the implementation of eco-modern and ecological techniques in animal husbandry, this novel enumerates the sequences of birthing and dying cattle in an environmentally-sensitive farming ambience. The author seems to be aware of the potential difficulties faced in industrial capitalization. Throughout the novel, the author brings in the discursive analysis based on prioritizing materialistic quests or mitigating environmental unsustainability. The interdependency existing between the farming landscape and the farmer results in the complex shaping of the masculine identity in which they are "produced in the opposition between traditional peasant farming and modern agriculture, and the opposition between the good farmer and the bad farmer" (Saugeres, 2002, p. 9). This contradictory nature between the good and the bad farmer (Saugeres, 2002) lies in incorporating the dialogic forms of technical instrumentations and emerging fertilizers in catering to the global market demands.

#### 4.3 Cognitive Ecology

Cognitive Ecology contextualizes the cognitive framework of perception and perceptive behavioural patterns in relation to the

undercurrents of the ecosystem. It is derived from the theoretical framework of “ecological psychology” which intends to render “a third way beyond cognitivism and behaviourism for understanding cognition” (Lobo et al., 2018). In an intertextual context, this cognition is meant to explore both the physical and mental stability of a farmer in the sustainable management of livestock. Ren et al., (2022) studied the relationship between the factors of “livelihood capital”, “ecological cognition” and “green production behaviour” in mapping out the prerequisites of ‘green production’ in agriculture. Chen et al., (2021) framed the “agriculture ecological cognition index” through the three dimensionalities within ecological agricultural cognition, by means of “an increase in income cognition, water conservation cognition and eco-product price cognition.” These cognitions could align the neurotic response patterns to the decisional conditions by approaching them as biological instead of being logical phenomena (Hutchins, 2010). Furthermore, it traces the behavioural shift of the farmers in adhering to or moving beyond conventional farming techniques to cultivate sustainable livestock products. Hutchins (2010) implies that cognitive learning is subjected to both the synchronic (based on functional relationships) and diachronic sense (based on evolution). In this novel, the synchronic sense can be comprehended in terms of the author’s interconnectedness to the livestock and his emigrated personality; and the diachronic sense concerns his behavioural shift from being an ignorant posh to a caring farmer: “To be a farmer is to be a student forever, for each day brings something new” (Connell, 2019, p. 89). In a way, this interdependent conditionality (Elliott, 2015) shared by the cattle and the author as a part of this caring tendency, can be explored to understand the physical and social cognitions of both the cattle and the humans. The sustainability of the cattle farm depends upon the discernment of the behavioural patterns inhibited by the cattle in incorporating husbandry-friendly measures to enhance livestock productivity. Ren et al., (2022) defined ecological cognition as “the awareness of farmers about the rural habitat environment and belongs to the psychological characteristics of individual farmers.” Indeed, cognition is a vast entity to deal with and amidst its various conceptualizations, symbolic cognition plays an important role in providing structured understanding to the human mind. The author anecdotes how the cow became a symbol of a new life for Puritan settlers, the aurochs being symbolized as evil, Picasso adapting bull as a symbol of recklessness and power in some of his masterpieces, etc.,. On an ecosophical note, farming has been symbolized as a spiritual entity that surpasses corporeal reality. It affirms what Roy et al., (2017) reflect: “Farming is often considered one of the most stressful occupations” while interrogating the factors hindering the mental well-being of the farmers. While considering the intellectual shift in the elementary analysis (action, interaction and conceptualization) of the human cognitive network; Hutchins (2010) mapped its subjective positionality to the environment as a “profoundly situated, social, embodied, and richly multimodal.” The preliminary structure of this plot revolves around the life of a man, who has been away from the family farm for a specific period of time and resumes his farming duties on his return during calving season. This significant gap between the rural-urban migrancy intensifies him to indagate the purpose of his existence, in spite of recollecting some delightful moments in the past. As a result, he provides an Edenic dimension to his farm as his return to the farm is meant for sheer rejuvenation of the self. The concept of ‘mutuality’ propagates the eco-theological take on the relationship existing between the author and his livestock, which aims for cognitive coexistence. Connell emphasizes the mutually dependent relationship between humans and cattle in extensive animal farming as, “To speak of cattle is to speak of man, for cows have been our companions for more than ten thousand years” (Connell, 2019, p. 24). And for a farmer, the stability of the farm is directly proportional to the stability of the self and vice versa. The author excerpted this metaphorical interdependence through the telepathic instinct as follows:

“This hay is three years old, for there has not been a good summer since to make new bales. The hay is from my uncle Mick’s ground. He too is dead. We have rented part of his farm from my aunt, and I think it would make him happy to see his fields used again. It is strange, for as Mick grew sick with the lung cancer, so too the weeds began to choke the land. It was as if a sickness had come upon everything.” (Connell, 2019, p. 44)

Nawroth et al., (2019) segment the cognitive capabilities of livestock species into two: ‘physical cognition’ (encompasses categorizing, and being aware of distinct physical abilities, reflexes, and skill of reasoning) and ‘social cognition’ (recognizing peers and other species, getting socialized in terms of communication, prosociality, and attentiveness). This article analyses both the physical and mental cognitive competencies of cattle in surviving complicated conditions. In addition to this, prioritizing the needs of ‘non-humans’ comprehensively embraces the global movement of ‘Deep Ecology’ proposed by Arne Naess. During tough times, the care rendered by the author, towards the farm animals to maintain the sustainability of the farm, would be suggested as the ideal quality of him being the non-hegemonic masculine figure. Moreover, this take could be treated as the presence of significant quality in reaching out to ecological posthumanism. Connell (1995) composed certain challenges that environmentally-sensitive masculinity (eco-man) could impose over hegemonic masculinity to emphasize the need to engage with the environment, instead of dominating its resources. They can be interrelated to this text as follows: ideologies of equitable techniques, a sheer insistence on solidarity and collectivism, proactive engagement in personal growth, and celebrating the organic wholeness of all life. Connell (1995) meant these experimental dimensions to incorporate the anti-hegemonic ideals in hegemonic masculinity to suspend their dominative exploitation over the subalterns including nature.

#### 4.3.1 Physical Cognition

In a cattle farm, it is necessary for a farmer to establish a mutual relationship with the cattle to comply with the emerging trends in the global livestock sector. It can be made possible through the consistent tracking of the physical health and the mental behavioural patterns of an animal. Yet there are certain circumstances in which the farmer might fail to comprehend the changing behavioural patterns of an animal all of a sudden. One such instance has been cited by the author in emphasizing the fact that it isn’t necessary for the cattle to reciprocate kindness in the same way that the farmer would’ve expected it to be. On an interdependent level, Elliott (2015) defined this care as “everyone is dependent at different times and in different ways and that everyone exists within reciprocal networks.”

Understanding these proportionalities of behavioural patterns could fetch better knowledge of their food-clock schedules and their corresponding response. Connell brings in the situational note of how the arrival of food is being indicated by the tractor and it corresponds to Pavlovian conditioning of neural stimulus. Kirsch et al., (2004) expounded on how this neural stimulus can be developed as a higher-order cognition in elevating the subsets of stimulus and response to resolve certain behavioural flexibility.

*Conditioned Stimulus (tractor) + Unconditioned Stimulus (food) -> Unconditioned Response (calling out their herds to have food)+Conditioned Response(salivation)*

The sound of the tractor functions as a 'Conditioned Stimulus' (CS) and the tractor carrying the round bales of silage could be implicated as an 'Unconditioned Stimulus' (UCS) as it triggers the cow to call for its herds in spotting the appropriate direction of food (Unconditioned Response) and the salivation as Conditioned Response. In the first phase of pre-conditioning, the 'trigger' to act quickly would be taken as the 'Unconditioned Response' (UCR), whereas the second phase succeeding this unconditionality could be defined as a 'Conditioned Response' (CR). Though this could be perceived as a basic form of the learning process, it inherently influences the factors such as "human health, emotion, motivation, and therapy of psychological disorders" (Rehman et al., 2022). In purview to this, the author has recollected how Vinny acquired the associative behaviour on his family farm and also in being tangible about his food and its routines. It is a phenomenal trait of episodic memory which enables the dog to realign its cognitive behaviour when required. For instance, the author has given an ovine placenta to Vinny. Days later, in the author's absence, Vinny unknowingly tried eating a lamb in whose body the placenta of its mother has been stuck. Though it is essentially unintentional, Vinny has undergone vigorous training to stay in control whenever he's coming across the placenta. Also, this realignment of conditioned response leads to the psychic numbing of past experiences. The contribution of the farmer in changing and training the cognitive patterns of the animal plays an important role in approaching 'physical cognition' as a two-fold process involving both humans and non-humans.

#### 4.3.2 Social Cognition

Nawroth & Rørvang (2022) investigated the social cognition of dairy cattle through the lens of animal husbandry which includes "individual discrimination and recognition, communication with humans, social learning, attribution of attention, prosociality, fairness", etc. In a way, the author has also discussed the idea of 'own free will' and how it is getting structured by the socio-cognitive behaviour corresponding to the farming environment. For instance, the author recalls how the blue heeler would control the cows while herding in Australian farms. But on his family farm (Birchview), the cows would threaten the dogs if they crossed their path while herding, as Vinny would behave like a sheepdog during crucial times. As a result, the topographical requisites surrounding the livestock could be a vital factor in acquiring the level of self-resistance by the cattle in livestock. Social interaction and wilderness are considered to be contradicting phenomena, and the social factor normatively lies beyond physical and mental capabilities. Kashetsky (2021) categorized the distinctive phenomenon of 'animal cognition' into two: perception and innate mechanisms. Both of these categorical propositions deal with adapting the available social ambience by means of sensory memory and physical distinctions. The perception deals with the neurotic retention of gathered information whereas the innate mechanisms consider the intricate migrational techniques, parental care, and coexisting with other species in livestock. The spatial identity of Connell gets fluctuated in terms of representing himself in accordance with urban and rural masculinity, as his strategic contribution to both constituents subsequently varies. More than purporting for rejuvenating himself in a rural landscape, through this narrative memoir, he has been struggling to discover his 'self'. This is explicit when the author confessed his aspirations to be a writer. Beyond these, certain socio-cognitive factors aim to aid the farmers during their tough times. Farming in rural Ireland has been viewed as collective work and is apparent in the narration of how the author's neighbours helped his father by giving solid structure to the farm. 'Meitheal' is an ancient tradition of men working together to create a sustainable environment and is inspired by American barn raising. Connell firmly believes that it is because of 'Meitheal' his family farm has been extended to be a 'large herd' from accommodating three cows during the initial stages. This socializing phenomenon of 'local social support' along with a 'sense of belonging' is considered to be the inherent feature of positive health and well-being among farmers (Roy et al., 2017). In boosting the fitness of rural men, the rural race group community conducts a big charity cycle race and it's where the people from the midlands could meet and engage in professional discussions. And indeed, positive health plays a crucial role in farmer's life due to their interconnectedness with the farm.

### 5. Conclusion

This autobiographical memoir thoroughly traced the challenging conditions in the efficient management of livestock in accordance with the eco-friendly measures taken by the author and his family in ensuring the well-being of the cattle. The aforementioned factors together appeal to establish the domain of Eco-man's Husbandry. It is meant to amalgamate the individual entity of a human (anthropocentric) as an ecological masculine figure and the collective framework of maintaining livestock (biocentric) through the means of 'husbandry'. The key features of husbandry implicated by eco-man include efficient livestock management in terms of following the ethos of care, ecosophy, eco-theology, wilderness, domestic care, socio-environmental consciousness, and the protection of the ecosystem by enriching the organic balance of the Earth. On a cognitive note, it encompasses both the physical and social cognition of a farmer in mapping their corresponding neurotic responses to the self and the embedded environment, in terms of rural livestock management. And the novel made an attempt in exploring Connell as an eco-man farmer in terms of certain prototypical dimensionalities by being highly elaborative about the deep ecological human-nature relationship.

## 6. Limitation of the Study

This study of eco-man's husbandry has been restricted to the specific novel in the exploration of the character of John Connell in his memoir, "The Farmer's Son: Calving Season on a family farm" (2019).

## 7. Scope of the Study

A new field of 'eco-man's husbandry' can be explored in the case of ecological masculinist involvement with the animals on a farm; ergo, this husbandry of eco-man concerns the ecologised version of animal husbandry, which is carried out by ecophilic men in particular.

## Conflict of Interest

The authors declare no conflict of interest with this research article.

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