Features

Quantum Thinking in FCS and Home Economics

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Inspired by a recent call for home economics and family and consumer sciences (FCS) to become Artificial Intelligence (AI) savvy, this paper coined the term quantum home economics as a hook for urging the profession to prepare for a quantum future. Far beyond classical physics, popular when the profession was founded in the 1900s, quantum physics is the new frontier. Of special interest is quantum thinking in tandem with quantum computing. After comparing classical physics with quantum physics, the paper explored the counterintuitiveness of quantum thinking and then juxtaposed quantum computing (qubits) against classical computing (bits) with its pros and cons and manifestations in daily living. Three pedagogical approaches are recommended: quantum, emergent, and critical. Home economists and FCS are encouraged to engage with anything and everything quantum, confidently stare down its counterintitutiveness and bring quantum thinking into their professional and disciplinary repertoire.

Introduction

Home economics[1] (family and consumer sciences [FCS] in the United States) was founded in a classical time with *classical* meaning traditional and long established in form or style and operating using methods developed over a long period of time (Proffitt, 2025). Home economics was especially grounded in *classical science and physics* — Newtonian science emergent before the 1900s. It is called classical because it is nonquantum (Krane, 2020). Since Ellen Swallow Richards' success as a chemist and home economist at a time when classical physics reigned, thinking within the profession has continued to advance but not far enough when it comes to quantum mechanics.

This paper, thus, orients home economists and FCS practitioners to quantum science and thinking by first arguing that the profession is still too caught up in classical-physics-informed thinking with its inherent downsides. Because quantumness is changing the world, the profession must be ready to help individuals and families face that world. Rather than assuming reader familiarity with classical and quantum physics, both are explained in preparation for the logic claim that the profession should embrace, what I am calling, *quantum home economics* — a new direction grounded in quantum thinking.

Classical versus Quantum Physics

Classical physics (picture a billiard or pool table) deals with the macroscopic world (i.e., objects and phenomena that can be observed and/or seen with the naked eye) by applying the laws of physics: force, motion, gravity, and electromagnetism. Phenomena and objects have definite properties (one state) whether observed or not. Quantum physics deals with the microscopic world (i.e., invisible atomic and sub-atomic levels) by applying the laws of quantum mechanics: superposition, entanglement, wave-particle duality, quantization, and the uncertainty principle. Things do not have definite properties (i.e., they are in multiple states) *until* they are observed or measured at which point they collapse into a single state. Picture Schrödinger's cat sealed inside a box that has a 50% chance of poisoning and killing the cat within an hour. Until the box is opened and the cat's *state* is observed, it is considered both alive and dead at the same time (Marinescu & Marinescu, 2011) (see Figure 1, Creative Commons Licences).

Overtime, home economics has had to modernize to keep pace with societal, technological, economic, and scientific evolution, which included classical physics evolving to *modern physics* with its focus on quantum mechanics and the theory of relativity (Krane, 2020; Marinescu & Marinescu, 2011). However, there is little evidence that home economics or FCS modernized to the point that it embraced modern physics — quantum science. In the early 2000s,

1 Ideas in this paper apply to family and consumer sciences (FCS), human sciences, human ecology, home sciences, household sciences, home ecology, and other monikers for the profession.

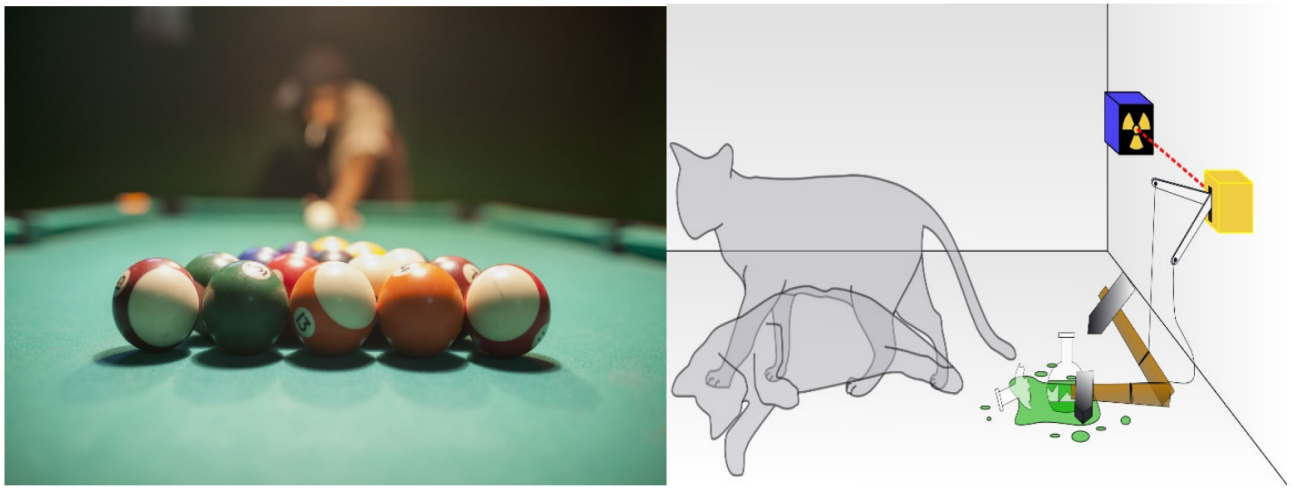

Figure 1. Metaphors for Classical and Quantum Physics

home economics conference planners rejected my keynote about the quantum holomovement principle because they judged attendees not ready for nor able to understand it (since published at McGregor, 2011b, 2025).

Also, despite the profession's historical interdisciplinary, holistic, and integrative nature, it has been suggested that our practice does not reflect our rhetoric. Too many home economists have uncritically (unwittingly?) perpetuated linearity, reductionism, fragmentation, mechanistic thinking, and determinism — key aspects of classical science (explanations with examples at McGregor, 2022, see also Table 1). For too long, we privileged empirical science, bought into outcome-based education, fell victim to excessive specialization, and fatalistically acquiesced to professional and disciplinary attrition (Brown, 1993; McGregor, 2022, 2023). These centuries-old classical science principles are the opposites of newcomer quantum science.

Max Planck (Albert Einstein's contemporary) introduced the word quantum to physics in 1900 (Conover, 2025; Nolte, 2020) when home economics was being founded. It is Latin *quantus,* 'the minimum amount of a quantity that can exist' (Harper, 2025). Planck needed a construct for his idea that energy is not emitted in a continuous wave but rather in discrete packets that can be counted — quantity (Nolte, 2020). Forward 125 years to where Conover (2025) audaciously announced the birth of the second quantum revolution — a juggernaut scenario that must respect communications between classical science and quantum mechanics.

To wit, just as "many of the design decisions for quantum computers stem out of what is done with classical computers" (Wong, 2022, p. 1), many home economists' decisions about quantum advances will stem from their classical physics grounding. Just as "a rudimentary understanding of classical computing makes it easier to understand quantum computing" (Wong, 2022, p. 1), a rudimentary understanding of home economists' use of classical science makes it easier to understand how things must change, so they can deal with quantum advances. Table 1 compares classical and quantum physics laws and concepts. It succinctly describes the classical thinking upon which we have become dependent and profiles quantum thinking being proposed for our future (adapted with permission from McGregor, 2011a, 2024).

Classical Physics Dependency and Quantum Thinking Counterintuitiveness

Because classical thinking is so embedded in our professional and cultural psyche, quantum physics principles can be very hard to accept, as they are counterintuitive or contrary to intuition, which is the ability to understand without reasoning (Matei, 2024). Synonyms for counterintuitive include absurd, faulty, preposterous, illogical, unreasonable, and ludicrous (Proffitt, 2025). Familiar examples of our profession's dependence on classical thinking serve to illustrate quantum counterintuitiveness. It is important that we can recognize these.

Disciplining a student by removing her from the classroom ignores her life world (e.g., hunger, fear, anger, loneliness, or insecurity). Removing or fixing the defective part (the child) while ignoring the whole picture negates underlying problems (reductionism). But, dealing with the whole picture to address issues with one part (nonreductionism) seems counterintuitive to classical thinking, which is based on the machine metaphor (Marques & Brito, 2014). According to said metaphor, "reality is made up of individual parts, each of which is external to and can be isolated from the other parts without itself being changed. [Parts] can be understood in isolation from their environments" (Korten, 1998, p. 104). The classroom, thus, becomes a highly structured, well-organized and efficient system. Students are parts of a machine that teachers ensure functions smoothly by using clear rules and procedures including removing defective parts (i.e., disruptive students) (Whang, 2021).

In other examples, assuming that what happens to people living and working elsewhere affects us and vice versa (global causality, connectedness, and entanglement) is a ludicrous idea because we don't know them and can't even see them. So, how can what happens to them effect us, or how can what we do affect them (local causality, and separability)? Believing that Western and Eastern science can

Table 1. Fundamental Laws and Concepts of Classical Versus Quantum Physics

Classical Physics	Quantum Physics
Reality (the true nature of the world and *universe*) - there is one level of reality, the empirical (physical) reality, made up of multiple disparate layers understood objectively and are value neutral	*Levels of Reality* - the true nature of the *multiverse* comprises multiple Levels of Reality (e.g., empirical as well as economic, social, technological, political, psychological and so on) that humans can access using multiple levels of perception (subjective, objective, and intersubjective)
Linearity - straight lines, sequentialism, and one dimensional; aspects of reality are defined and understood by their individual characteristics; deals with direct relationships and proportionality	*Nonlinearity* - no straight lines; aspects of reality are defined in relation to what they are *connected* to; things can appear out of sequence or disproportional to their inputs and still be understood; deals with indirect relationships
Deductive, exclusive logic, either/or thinking - permissible to exclude things presumed impossible to coexist; expects contradictions, incompatibilities, antagonism, and exclusion; presumes reconciliation of differences is difficult even undesirable	*Inclusive and complexity logics, both/and thinking* - enables people to see connections (does not outright exclude anything) and think together in nonlinear fashion to weave disparate ideas into something new; depends on and works around contradictions and incompatibilities seeking reconciliation
Determinism - all events are causally inevitable; they are predetermined and could not have been otherwise; if the initial state is known, its future behaviour can be predicted with certainty; if you went back in time, only one possible future can flow from a starting point	*Indeterminism* - some events are not causally determined but occur by chance due to inherent randomness and uncertainty; it is impossible to assign a pre- or well-determined trajectory (an exact point) because alternate outcomes (potentialities) are a real possibility; if you went back in time, multiple possible futures could flow from an identical starting point
Continuity - one cannot pass from one point of space and time without passing through all intermediate points; nothing can be skipped over; no leaps or bounds	*Discontinuity* - there is nothing between two points except for a gap of potentialities; phenomena are characterized by abruptness with ruptures between them (no smooth, continuous transition) (e.g., quantum leaps)
Relativity - reality is single-referential; that is, all understandings are anchored in one single source instead of multiple or subjective sources; there is a singular, *objective* truth (independent of our perception or interpretation) with everything referencing this core reality	*New Relativity* - Reality is multireferential; a Level of Reality (e.g., economics) is what it is because other Levels of Reality exist at the same time (e.g., politics, history, and society). Also, no *one* Level of Reality constitutes a privileged place from where to understand the other Levels (e.g., scientific empiricism cannot be privileged)
Local causality (separability) - every physical phenomenon can be understood by a continuous chain of cause and effect; the laws of classical physics determine everything that happens; the causation percolates upward thus determining what happens all the way to the top	*Global causality* (nonseparability) - quantum entities continue to interact regardless of the distance between them (entanglement); this causality concerns the system of all physical entities in their *ensemble*; processes and events in one part of the world influence those in others, which must be taken into account to understand what goes on in the multiverse (not just universe)
Completeness - a complex system or phenomenon can be reduced to the simpler, core, primary entity, to its most fundamental level, and understood completely	*Incompleteness* - the laws ruling a particular Level of Reality are part of an *ensemble* of laws ruling all Levels of Reality; there is no *one* fundamental Level of Reality (no completeness), as each Level exists because the other Levels exist at the same time
Resistance - to oppose, experience unwillingness and/or unresponsiveness to movement or change in a state of motion or rest; resistance can preclude people from changing perspectives or considering alternate viewpoints	*Nonresistance* - to be open to others' perspectives, ideologies, value premises, and belief systems and inherently let go of how one currently *knows* the world; this letting go happens in the quantum vacuum of potentialities; overcoming resistance to differences or contradictions frees people to see others' point of view
Reductionism - understand the nature of complex things by reducing them to the interactions of their *parts* or to simpler or more fundamental things; the intent is to capture reality finally and absolutely; view complex systems from a linear perspective disregarding complex phenomena	*Nonreductionism* - things can have *emergent* properties as a whole that are not explainable from the sum of their parts; the whole is more than the sum of its parts and determines how the parts behave and vice versa; view complex systems from a nonlinear perspective by privileging complex phenomena (holism and emergentism)
Dualism, either/or thinking - opposites cannot communicate or act upon each other. One reality has nothing to do with the other — they are totally distinct and separate (body *vs* mind)	*Nondualism, both/and thinking* - opposites can be different from each other, *but* they cannot be separated; opposites and Realities can communicate and act upon each other; things can be distinct without being separate (mind *and* body)

be combined to create holistic medicine (*both/and* thinking, nondualism) is preposterous because we all know that only Western science and medicine can be trusted (*either/or* thinking, dualism). Publishing an academic paper containing subjective data and truths (inclusiveness, incompleteness, nonresistance, new Relativity, and Levels of Reality) is illogical because only the objective, scientific method gives us truth (reality, resistance, and relativity).

To continue, opening our minds to others' points of view to address problems creatively and innovatively (nonresistance, new relativity, nondualism, and inclusive and complexity logics) is counterintuitive to our centuries-long commitment to dualistic (*either/or*) thinking and deductive (exclusive) logic. Finally, assuming that students can skip grades and still learn (discontinuity, and nonlinearity) is unreasonable because life and learning are predetermined.

Skipping steps from point A to point B invites failure because people will miss something important (linearity, and continuity).

The counterintuitive nature of quantum science poses several challenges to home economists' thinking.

> (a) It can create confusion, resistance to change, and it can pose real danger to the acceptance and understanding of new ideas. The quantum ideas in Table 1 go against home economists' natural instinct to lean on familiar classical thinking as illustrated in the previous examples. Using quantum ideas will likely require extra effort and conscious thought, which pushes back against intuitive, classical practice (Hardcastle, 2022).
> (b) Counterintuitive information may feel very uncomfortable at first glance and even after prolonged attempts to grasp and internalize.
> (c) Sometimes attempts to use counterintuitive ideas can lead to misinterpretation and unintended negative consequences.
> (d) Some home economists and FCS practitioners may be very skeptical thus making it harder to embrace the quantum ideas in Table 1.
> (e) And societal challenges for FCS and home economics may be triggered if our changed practice is perceived as outside the norm — different from what is normally expected of our profession (Ewers, 2015; Gharajedaghi, 2021; Hardcastle, 2022).

Despite these challenges, embracing counterintuitive ideas offers home economists and FCS practitioners many advantages. After accepting the necessity to "retrain their brain [until] the weird becomes the norm" (Hardcastle, 2022, para. 11), counterintuity relative to quantum thinking has its benefits. People's confidence in the merit and use of quantum ideas will increase. They should be more inclined to make decisions differently, consider situations more diligently, and better make sense of things in different contexts. They may be more open to uncertainty because thinking against their natural inclinations requires risk taking. And they may gain or hone resilience because their comfort level with quantum thought will have been confronted and challenged (Hardcastle, 2022).

Paradoxically, although quantum thinking may be counterintuitive to home economics, embracing counterintuitive ideas "opens doors to new possibilities — and new solutions" (Ewers, 2015, p. para. 6). Hardcastle (2022, last para.) astutely observed that "we don't know what we don't know but we have the opportunity to embrace counterintuitive thinking to address things when they become known." Embracing counterintuitive quantum thinking may, thus, help home economists and FCS to rise above the noise of crises that they would normally address using their go-to thinking (Ewers, 2015) — classical science.

This line of reasoning and argumentation prompted the research inquiry herein. Quantum computing, informed by quantum mechanics, is a powerful example of scientific advancement beyond classical physics. It turns *thinking* on its head. *How can home economics and FCS deal with the counterintuitiveness of quantum thinking when facing the quantum juggernaut?*

Quantum Advancements

This section respects where people are (classical thinking) and where they are being asked to go — quantum thinking. I reasoned that groundedness in familiarity may ease the transition to a new way of thinking — make it less intimidating, because it *is* intimidating. Table 2 (see also Figure 2) compares the essence of classical, traditional computing and quantum computing, which was conceived in the 1980s (Hidary, 2019; Marinescu & Marinescu, 2011; Nguyen, 2025; ScienceABC, 2024; Wong, 2022). A fuller description is available on request, and readers are invited to view ScienceABC's (2024) animated YouTube video on quantum computing and thinking.

Just as classical thinking is informed by classical physics principles, quantum thinking is informed by quantum mechanics principles that drive quantum computing, especially superposition (a single entity can occupy multiple states simultaneously); entanglement (two or more particles are linked in a way that they share the same fate, regardless of the distance separating them); and interference patterns (interactions among qubits that affect probability of outcomes — there is no certainty) (Brooks, 2025; Conover, 2025; ScienceABC, 2024; Wong, 2022).

Developed based on these and other principles (see Table 1), quantum computers are "blazingly fast" (Lerman & O'Brien, 2019, Title). The unprecedented processing speed, massive amounts of data, complex computations, and predictive analytics will change the world (Brooks, 2025; ScienceABC, 2024). This means that home economics and FCS must prepare individuals and families to be ready for that world. What will people encounter in their daily lives?

Quantum computers are being used for drug development and medical breakthroughs, financial modeling (feasibility of investment strategies), cybersecurity, computational chemistry (molecular mapping and chemical reactions), artificial intelligence (AI), data analysis, industrial and manufacturing supply chain management, weather forecasting, navigational devices, and magnetic resonance imaging (MRI). They will speed up drug development, testing, and approval; uncover new medical treatments in real time; augment AI voice, image, and handwriting recognition; end run cyber attacks; improve air traffic control; transform car battery technology; enhance cloud computing (storage solutions as well as exchange and management of information); and sharpen weather forecasting in the face of extreme weather and climate change (Brooks, 2025; Das, 2020; Nguyen, 2025; ScienceABC, 2024).

These areas — healthcare, banking, communications, transportation, commerce, cybersecurity, energy, information management, and weather — are real-time, daily life issues for individuals, families, and communities. Brooks (2025, last para.) observed that

> we are on the emerging pathway to the new era of quantum computing. And it is arriving in various forms sooner than we thought. Quantum technologies will inevitably be combined with artificial intelligence. The implications of that convergence will be transforma-

Table 2. Classical and Quantum Computing Basics

Classical Computing	Quantum Computing
uses *bits* (from *bi*nary digi*ts* — either 1 or 0)	uses *qubits* (a *quantum bit*) that can be both 1 and 0 at the same time and can occupy the same *space* at the same time (i.e., superposition)
uses logic gates based on Boolean algebra that deals with binary values and logical operations like AND, OR, and NOT	uses quantum gates that function as switches that flip a qubit's state or change its phase back and forth from 1 to 0 (repeated switching causes noise that creates computational errors calling results into question)
circuit boards with computer chips process digital information (bits - 1 or 0) using transistors	superconducting chips process qubits (information) by changing the quantum states of atoms, electrons, photons, and ions. Changes in one state affect all others; performs calculations by combining quantum gates, entanglement, superposition, and interference
computer looks like a circuit board	computer looks like an upside-down chandelier of intricate gold, blue, and silver wires and tubes

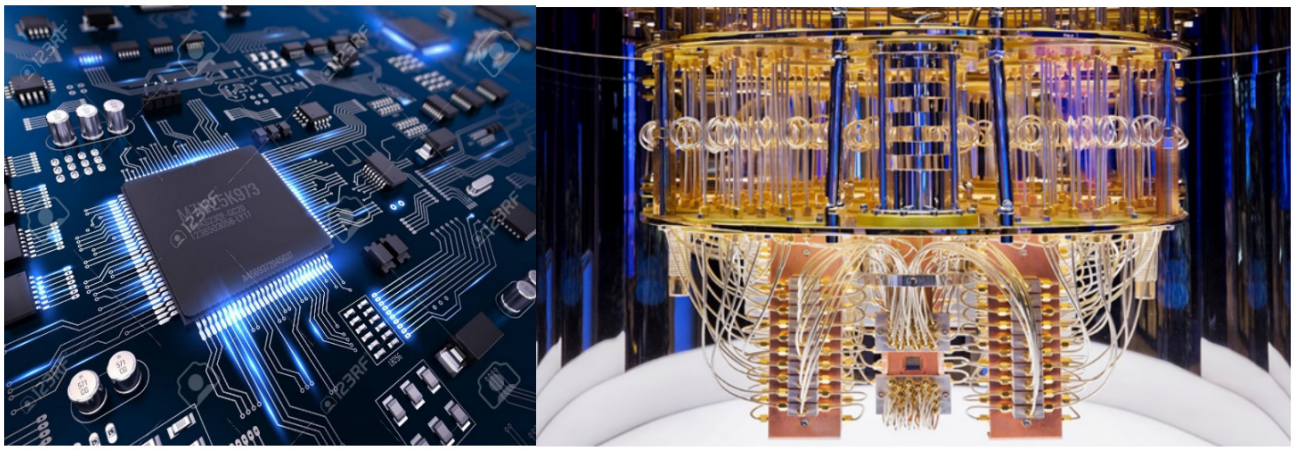

Figure 2. Classical Computer (Circuit Board) and Quantum Computer (Chandelier) ***(Creative Commons Licenses)***

> tional. We must now prepare for the exponential benefits and risks of quantum technologies due to their potentially disruptive nature.

Indeed, there are downsides to quantum advances that our profession must be aware of to better serve individuals and families encountering them. Foremost, computational technology is developing in leaps and bounds, but it is error prone because qubits can break down and lose data if not kept cold enough. Resultant errors make it challenging and risky to use output to solve complex human problems because results can exhibit compromised accuracy, reliability, relevancy, and meaningfulness. Worse still, immature quantum algorithms cannot adequately deal with complexity, although they do it better than classical computers (Canorea, 2024; Kisters, 2023; Nguyen, 2025; Rao, 2024; ScienceABC, 2024).

Other disadvantages include the hard toll exacted on the environment because of energy consumption and the natural resources (e.g., water, electricity, and rare earth elements) required to build and run these computers (especially cooling and error correction). There are also ethical concerns around researchers' and organizations' blocked access to expensive quantum computing (tens of millions of dollars). Finally, although used for cybersecurity, quantum computers can ironically break encryption codes (readability) thus risking data and system security. Some hackers are stealing data now to crack later with future decryption technology. This preemptive theft poses a tangible threat to financial institutions, investment firms, and ecommerce platforms and thus to well-being and quality of life (Brooks, 2025; Canorea, 2024; Kisters, 2023; Nguyen, 2025).

Quantum Thinking in FCS and Home Economics

This foundation piece was intended to spur further thinking about quantumness and how to apply it in practice. This section begins that conversation and invites others to prepare practice pieces for the Journal on what this looks like in the classroom and beyond. To begin, just as some tasks are better performed using classical computing (Nguyen, 2025; ScienceABC, 2024), some aspects of daily life are best understood using classical thinking. This means that home economists must learn what to keep and what to change. This entails digging deep into how classical physics informs their philosophy, thinking, and practice (see Table 1).

Fuelled by emergent insights into classical blinders, they can replace aspects of the machine metaphor with the living system metaphor when teaching FCS and home economics using quantum thinking: openminded and mindful, holistic and life centered, contextual, interconnected, embedded and entangled, emergence and potentialities, in-

Figure 3. Applying Quantum Thinking Principles in Home Economics/FCS Education

When using quantum thinking and living systems principles to teach ethical consumption, educators would act as facilitators, coaches, and activators who scaffold learning so students learn **mindfulness** and **openmindedness** (**nonresistance** to others). Mindfulness involves "focusing on experiences happening in the moment by continuously regulating attention partnered with an inquiring, open-minded perspective [i.e., willingness to consider new ideas]" (Edstrom, 2016, p. 16). Learning in a mindful way helps people better understand the significance of **context —** the circumstances shaping something (Edstrom, 2016). Teachers would guide students to view everything and everyone as **interconnected** rather than isolated and separate. This mitigates readily dismissing the impact of consumer decisions on others because consumers are defined in relation to what they are ***connected*** to (**nonlinearity**) rather than who they are individually.

Using quantum thinking, educators would, thus, help students learn about **world centeredness**, where making the world whole complete is the center of their decisions rather than their personal world. They could concurrently be exposed to **embeddedness** or how deeply and firmly they are fixed or entrenched within their surroundings, both here and abroad. They are not separate, isolated consumers. What they do affects others and vice versa even if they cannot see each other — everything is **entangled** in very complex and complicated circumstances (**global causality,** and **superposition**). Also, knowledge for making ethical consumer decisions should be cocreated, so everyone owns it (**embodied**).

Combining these quantum principles helps teach **complexity** (i.e., self-organization within an interlinked system or network) and **emergence** (i.e., complex ideas and global behaviors arise from **leveraging** simpler, local interactions) (McGregor, 2020). Quantum thinking further presumes that what *looks* like it is not **connected**, actually *is* connected. Embracing this can aid students in **actualizing their potential** thus increasing their chances to gain **self-power** leading to sustained ethical consumption behaviour. They would also learn how to **leverage** life because educators would ensure leveraged learning by moving from surface, and shallow to deep learning to trigger responsible and accountable **self-organizing** behaviour that happens without anyone else controlling things (McGregor, 2020) (**indeterminism**) — **self-directed** consumers with a conscience.

Using quantum thinking to teach ethical consumption further ensures that students inherently learn about **wholism** (**unified completeness**), **integration** (interweaving previously separate things to get a new whole), **collectivism** rather than individualism, and how to be **people centered** and nature centered **(ecocentric)** rather than self-centered (**inclusiveness**). They would also learn that everything is **multireferential**, which means things *are what they are* because everything else exists at the same time. Thus, other things cannot be ignored, and **inclusiveness** reigns. Consumers cannot privilege themselves over other humans, species, and the Earth whose voices and interests are paramount to quantum-informed ethical consumer decision. Their inclusion may be **integral** (i.e., their exclusion is noteworthy). Their absence or presence profoundly affects the outcome, which matters because multiple possible futures are possible (**indeterminism**).

clusive, nondualism, complexity, multireferential, collectivism, people focused, ecocenteric, and world centered (Korten, 1998; McGregor, 2024; McGregor et al., 2008; Nicolescu, 2014). Figure 3 shares an educational example of these ideas in action. It concerns ethical consumption, which pushes back against ubiquitous dualistic (either/or) thinking, exclusion, fragmentation, reductionism, and determinism, which quantum thinking challenges (see Table 1).

Pedagogical Innovations

To help make the ideas in Figure 3 come alive, home economics and FCS educators should employ three particular pedagogies: quantum, emergent, and critical. They should monitor developments in the nascent curricular approach called *quantum pedagogy.* Instead of rote memorization and predetermined outcomes, a quantum pedagogy supports uncertainty and lateral thinking (Dobson & Scaff, 2024). It draws on superposition, entanglement, uncertainty, nonlocality, complementarity and so on to enhance educational practices. The anticipated benefit is an incredibly dynamic, immersive, and adaptive learning environment grounded in the dialectical (versus analytical) approach that effectively deals with quantum chaos and emergence (Biersteker, 2022; Damaševicius, 2025). With a quantum pedagogy, students "explore multiple facets of the same topic simultaneously [with curiosity fostering deep learning]" (Dobson & Scaff, 2024, p. 16).

In the meantime, home economics/FCS educators can augment the well-established *critical science* pedagogy (Johnson & Fedje, 1999; McGregor, 2025) with an *emergent pedagogy* (Gale, 2006; Mitra, 2012), which ensures deep, deep learning that accommodates quantum counterintuitiveness. It includes "[self-directed and self-organized learning] — a swarming metaphor, bifurcated teachable-moment learning; synergistic, leveraged learning; unknowable, unpredictable learning; robust learning; and meaningful learning" (McGregor, 2020, p. 11). The emergent pedagogy can be used when drawing on quantum science principles to teach aspects of home economics and FCS.

Conclusion

Some experts forecasted that quantum computers are not expected to become mainstream anytime soon (Nguyen, 2025; ScienceABC, 2024). Dargan (2023) and Leswing (2025a) predicted another 15 to 20 years. However, Bill Gates recently narrowed it to 10 years augmented with his forecast that "humans won't be needed 'for most things' in the world" (2025, p. para. 1). Google's Chief Executive Officer was even more optimistic predicting that quantum computers will be running everyday applications in five years — by 2030 (Leswing, 2025b). As noted, Conover (2025) recently suggested that we are already entering the second quantum revolution.

This inexorably shrinking timeline means that home economists and FCS practitioners must hone their readiness for a quantum future, which includes learning quan-

tum thinking and monitoring the daily insurgence of quantum computing product and service advancements. If businesses and governments are getting ready for a quantum future (Brooks, 2025), we must also be ready to help individuals and families survive, thrive, and critically engage. This readiness claim further assumes that because quantumness will change the world, we too must change, so we can help people to prepare for that world.

The imperative expressed herein — the clarion call to quantum thinking — was inspired by the International Federation for Home Economics' (IFHE) (2024) call for the profession to become AI savvy (see also Hustvedt, 2024). AI involves teaching computers (machines) to simulate human cognitive abilities — learning, decision making, problem solving, perception, and communication (Roofe et al., 2024). IFHE's entreaty remains crucial because AI will inevitably be combined with quantum advances (Brooks, 2025; ScienceABC, 2024), and ubiquitous AI is already affecting our practice (Athanas, 2023; McGregor, in press; Roofe et al., 2024; Schmitt, 2024).

Despite its intimidating nature, this double-barrelled juggernaut — AI-aided thinking machines with blazingly fast, error-free computations in the face of mounting complexity — behooves home economists and FCS practitioners to engage with anything and everything quantum by confidently staring down its counterintitutiveness and bringing quantum thinking into their professional and disciplinary repertoire.

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