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A Woman Unfolding: A Journey of Motherhood and Creativity How Inviting Play and Honoring Our Thinking Preference Strengthens Well-Being

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A Woman Unfolding: A Journey of Motherhood and Creativity
How Inviting Play and Honoring Our Thinking Preference Strengthens Well-Being

Laine M. Walnicki

An Abstract of a Project in
Creativity and Change Leadership

Submitted in Partial Fulfillment
of the Requirements
for the Degree of

Master of Science


July 2024

Buffalo State
State University of New York
Department of Creativity and Change Leadership

ABSTRACT OF PROJECT

Seeking to provide a nuanced understanding of how the facets of motherhood, creativity, and wellbeing intersect and influence each other, this investigation and subsequent analysis answers the questions, "How does motherhood affect creativity?" and "How does creativity affect motherhood?" as well as their impact on creative outlook and wellbeing. Drawing on insights from the science of creativity, self-actualization, flow, and play, an understanding is curated as to how humans develop creative capacity, utilize it to foster well-being, and develop their potential for growth and evolution. The significance of play in the context of motherhood is also explored along with its impacts on the development and assimilation of cognitive and emotional intelligence. The inquiry into Maslow's hierarchy of needs, which outlines the stages of human development culminating in self-actualization, is complemented with Dr. Ruth Richards' research on everyday creativity. These are shown to serve a role in promoting self-actualization, particularly in motherhood, by enhancing emotional resilience and reducing stress through daily creative activities. Mihaly Csikszentmihalyi's concept of flow further elucidates the optimal experiences that drive personal growth and cognitive integration. Additionally, the problem-solving preferences of a small sample of mothers is examined through the FourSight Thinking Profile to add context on their creative thinking and problem-solving processes. By synthesizing these interconnected ideas—Maslow's hierarchy, everyday creativity, flow, play, and thinking preferences—this research provides a comprehensive perspective on the mechanisms that enhance well-being and personal growth and ultimately make us human.

Key Words: motherhood, creativity, FourSight Thinking Preference, Maslow, everyday creativity, flow, play

A handwritten signature in black ink that reads "Laine Walnicki". The signature is written in a cursive style and is positioned above a solid horizontal line.

Laine Walnicki

July 2024

Buffalo State University
State University of New York
Department of Creativity and Change Leadership

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Creativity and Change Leadership

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Dr. Molly Holinger
Associate Professor

August 12, 2024



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Student

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To my family, Glenn, Alan, Archer, Sidney, and Liza. You provided ballast when I would've burned myself out beating moth's wings against the light. We've been through so much in the last five years. Liza didn't even exist when I started this program! Archer, Sidney, and I were each beginning a new chapter in our education. Then the pandemic came. Taking a pause to have Liza only strengthened my resolve to finish and gave me the greatest knowledge of myself as a mother. To see my three beautiful children, my family is complete. Each of you has given me reason to push myself harder than I thought I could and insight into parts of myself that I did not know existed. Glenn, you have been my rock and kept me going through late nights and long days. My steadfast champion through all of this. I love each and every one of you so very much.

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SECTION ONE: PURPOSE AND DESCRIPTION OF THE PROJECT

*Being a mother is learning about strengths you didn't know you had,
and grappling with fears you didn't know existed.*

- Linda Wooten

Motherhood is the exquisite inconvenience of being another person's everything.

- Unknown

Eleven years ago, I became a mother. While I anticipated outward changes, such as time management and all the material possessions a baby brings, I did not foresee the significant psychological shifts. Motherhood, in its essence, is creation. In my experience, it was the change of oneself into an altogether new being. With this divergence comes a new integration, convergence, and reconciliation of the two people she has become: herself and herself as a parent. I thought about how different parts of myself and my wellbeing had grown and shrunk. Similarly to how people react differently to trauma—some grow, while others become incapacitated or regress—what causes the self to expand or converge, and why? How can we encourage growth? This led me to creativity and two key questions:

- How does motherhood affect creativity?
- How does creativity affect motherhood?

These are big questions. I will start with the first.

How Does Motherhood Affect Creativity?

In investigating these two questions, I've found that there are many ways in which to address them. There are pointed questions about how mothers specifically create and contribute to the canon of the arts, as in writing, painting, photography, and filmmaking (Phillips, 2022).

Likewise, there are many discussions on the little "c" vs. Big "C" contributions of mothers in their professions and their home and child rearing (Richards, 2007). In her article "Creativity and Mothers: Little 'c' versus Big 'C' Creativity," Dr. Shelley Carson (2019) asserts that while

there is a significant discrepancy in the acknowledged achievements of women in professional arenas, mothering, by all range of caretakers, is intensely creative and contributes a great deal to society. She names several easily recognizable examples of daily creativity: getting budget-friendly meals on the table, making a game of laundry folding, and helping teenagers with pressing social needs. While she does thank those who are mothers for their contributions to society and enriching our culture, her words feel superficial. Mothering *absolutely is* 1,000 daily tasks, like many jobs, but there has been a shift following the COVID-19 pandemic, which has shed light on a long-overlooked truth: mothering is arguably the most essential, yet highly undervalued work that humans do in modern times (Garbes, 2022).

To support this “essential work”, a deeper well of insight beyond the creativity literature is necessary, specifically exploring the intergenerational nature of the mother-child relationship.

The Evolution of Motherhood: Mothering in the 21st Century

Mothers, in an evolutionary ideal setting, are a collaborative collective (Gray, 2023, #25). When a baby is born, it inherits generations of foremothers' creativity, ingenuity, and problem-solving capabilities. Mothering greatly influences a child's creative differentiation and integration capabilities, both consciously and subconsciously (Csikszentmihalyi, 2014a). Next, based on my experience of becoming a mother myself, those divergent and convergent skills imprinted on me as a child have resurfaced, and the cycle of learning, growing, fulfillment, and evolution of a new generation continues. Therefore, my sub-questions related to how motherhood affects creativity are:

- a. What if the connection to our ancestral ingenuity is weakened?
- b. What if the motherhood instincts become overridden?
- c. How might this impact a child's development and ability to tap into their inherited creative potential?
- d. Will the cycle of learning and growth be disrupted, leading to potential challenges for future generations? Has it already?

Dr. Mihaly Csikszentmihalyi, in his research on flow and positive psychology (1975; 1988), identified factors of evolution that greatly influenced humans' need to seek novelty and innovation. These include strong intrinsic motivation and a great sense of autonomy and agency in discovering and solving new challenges. When humans achieve a highly enjoyable state of concentration and problem-solving, they are said to be in a state of "flow" (Csikszentmihalyi, 1975). In an interview (2002) on his concept of "flow" and the soul, Csikszentmihalyi discusses how humanity came to this evolutionary peak through natural growth and entropy. He reflects on the relatively recent state of growth:

Some people say we have been able to reflect on our own thinking for only about 3,000 years. Once that happened, the old rules of evolution began to change. We're no longer subject to the determining influence of our genes as much as we were. We are no longer subject to the determining influence of our social/cultural environment as much as we were before. We are no longer determined by entropy as much as we were before. (p. 109)

This shift has allowed for greater autonomy and self-awareness in our decision-making processes. As a result, humans have the potential to shape their own evolution in ways that were previously unimaginable. While this shift towards greater autonomy and self-awareness has opened up new possibilities for human evolution and growth, it is important to remember that evolution is a natural process that requires adaptation and change. Those who resist or fail to evolve will ultimately be left behind as the human species continues to progress and develop.

In a conversation with my project mentor, Ismet Mamnoon (March 22, 2024), we discussed humanity's recent history of technological growth towards our modern society. She contends that we've been in survival mode for nearly a century and have been moving through the last few generations at a breakneck pace for survival. We discussed the structure of Maslow's hierarchy of needs and how society and innovation have been pushing towards meeting the basic needs of a broader society. Maslow's hierarchy of needs illustrates the progression of human needs from basic survival to self-actualization (McLeod, 2024). As society has advanced technologically, we have been able to meet more of these needs for a larger portion of the

population. It seems that our focus has been on fulfilling these lower-level needs since World War II, but as we continue to evolve, there has been greater emphasis on satisfying higher-level needs such as creativity and self-fulfillment (Csikszentmihalyi et al., 2014).

The impact of WWII on different American generations is evident in the lasting effects of war across generations, as seen in the psychological reactions to traumatic events and the intergenerational transmission of trauma (Kijewski, 2020). Studies have shown that war experiences can have long-term effects on mental health and well-being, influencing the adjustment reactions of individuals and their descendants (Kijewski, 2020). Subsequent generations have not had to fight as hard for survival and have sought self-actualization as the next level of fulfillment. However, it has become evident in the last two decades that while evolutionary means have become overly satisfied, the collective trauma of decades of psychological and emotional scars still linger in the descendants of those who experienced trauma during these times of upheaval (Kijewski, 2020). The steadily increasing rates of obesity, cancer, heart disease, and other non-genetic illnesses may point to a deficiency in foundational areas of Maslow's hierarchy of needs. These indicators of collective trauma from the recent pandemic show a threefold increase in not only physical ailments, but also mental illness, depression, anxiety, and suicide among all age groups ([apa.org/Stress-in-America-2023](https://www.apa.org/stress-in-america-2023)). Meanwhile, the rates of childbirth in the United States have reached their lowest levels ever, with many adults of childbearing age consciously opting out of parenthood for many reasons, including the Great Recession of 2008, increasing housing and childcare costs, and "shifting priorities" among cohorts of young adults (Kearney and Levine, 2022).

This shift in priorities and lifestyle has led to a reevaluation of what it means to truly thrive in the modern world and is evident as far back as the early 1990s (Easterlin and Crimmins, 1991). The focus is no longer solely on survival but on finding purpose, fulfillment, and happiness in a society that is constantly evolving (Csikszentmihalyi and Seligman, 2014). With the increasing rates of mental health issues and individuals choosing not to have children,

it is crucial to prioritize activities that help children develop cognitive, emotional, and social skills through engaging and enjoyable experiences (Cohen, et al., 2022). By actively facilitating children to experience flow during play, they can enhance their creativity, problem-solving abilities, and overall well-being as they navigate an ever-changing world. I believe creativity not only begins with the mother, but the mother is also the greatest influence for creativity and innovation into the next generation, beginning when her children are only newborns. Lowering rates of parent-child interaction and fewer opportunities for unstructured play have left many people unable to express themselves through autonomous, spontaneous interactions (Brown, 2023). This can lead to a state of languishing. To fight languishing, we can turn to play.

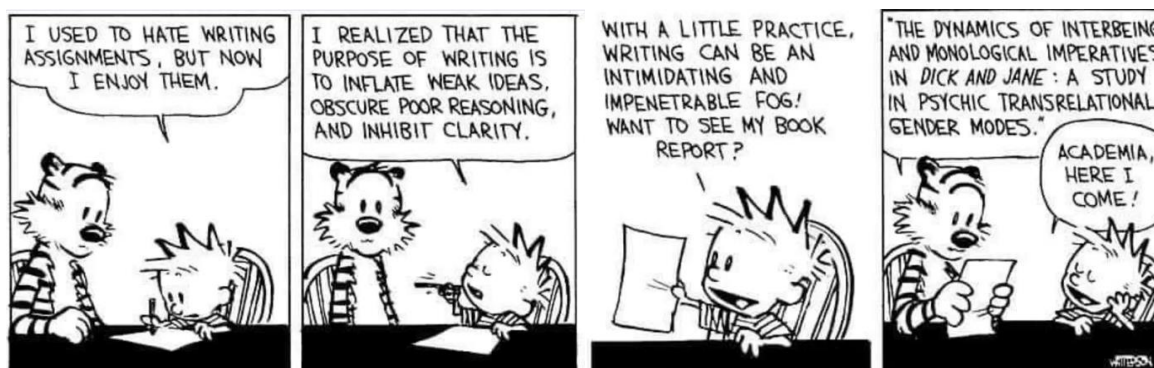
According to experts at the National Association for the Education of Young Children (NAEYC.com; Nell & Drew, 2013), play is made up of five essential components:

1. The individual makes their own decisions.
2. The individual is intrinsically motivated.
3. The individual becomes immersed in the moment.
4. Play is spontaneous, not scripted.
5. Play is enjoyable.

I decided to test these principles out myself through my ideal way of playing: exploring and diverging on ideas. I let myself fall down a rabbit hole of research, pulling threads of interest and following questions as they arose. This type of play allows me to fully engage my curiosity and creativity, leading to a sense of fulfillment and joy. As I delved deeper into my exploration, I found myself feeling more energized and motivated, pushing back against the feelings of uncertainty and doubt that I have had about grappling with a project this size while also managing so many other aspects of my life. An important piece of advice I received early on was to have fun with the project and know that outcomes rarely line up with the plans. So, I've had fun and trusted that I can at least learn enough to sound like I know what I'm talking about (Figure 1).

Figure 1

Calvin and Hobbes



Note. I Used to Hate Writing Assignments. *Calvin and Hobbes*. Bill Watterson, 1987

How Does Creativity Affect Motherhood?

Which leads me to my next question: How does creativity affect motherhood? There is much research and opinion on this topic, as I have found through internet searches, raiding county-wide libraries, myriad personal conversations, and reflections on history.

I began my research project with a bit of reflection on the subjects covered since entering the Creativity and Change Leadership program in Fall 2019. The course on creativity measures and qualitative/quantitative analysis was one of my favorites, as was Facilitation of Group Problem Solving with Dr. Roger Firestein. But when I look back at the one topic that sparked the most interest—self-reflection and personal growth—head and shoulders above the rest is FourSight, introduced in Principles of Creative Problem Solving by Dr. John Cabra. Among all the creativity experts, myriad assessments, and measures we’ve studied in the program, none has impacted me as much as FourSight. I look back on my pages of notes from our FourSight discussions and find detailed drawings in colorful pen, carefully noting the divergent and convergent processes through the FourSight framework. The FourSight Thinking Profile framework and its assessment are tools used to measure creative problem solving (CPS) preferences (foursightonline.com). It has been developed over almost 30 years and has undergone several adaptations to ensure validity and reliability. The assessment focuses on

individuals' preferences for specific activities related to creative solution finding in the areas of clarification, ideation, development and implementation of a related problem and its solutions. Our initial class meeting involved taking the assessment and thereafter reviewing the results of our individual problem-solving preferences. I am classified as a "hare"—quick to start but a slow finisher—with strong preferences in both clarification and ideation and slowly dropping off through developer, with implementer rated the lowest of my preferences (Puccio et al., 2016). Upon digesting this information, it was as if my life flashed before my eyes: the endless hours spent daydreaming and asking questions, the sketches I made, the stories I wrote, the books I read, countless subjects that interested me, and things I imagined doing. These all reflected my high preference for clarifying and ideating. I also stung at the thought of all the projects I had thrown myself into with enthusiasm and spark, only to abandon them, unfinished, and frustrated at my lack of willpower to complete something that I had found so fascinating. Understanding my problem-solving preference in such a clear, scientifically proven way was validation and assurance. Validation of me being a spaced-out dreamy kid (and then adult) with a preference and ability to take on many kinds of jobs and relate to many kinds of people, of my prowess to gather considerable amounts of information and realize trends before anyone else (why I almost went into data sciences), and a significant tolerance for highly novel, original ideas (I scored a 90% in originality on the Torrance Test of Creative Thinking [wikipedia.org/Torrance-Tests-of-Creative-Thinking]). Since that first class, it has been a goal of mine to become certified in the FourSight assessment process to enlighten others in their own creative problem-solving preferences.

At the time, getting a certification in FourSight felt like putting the cart before the horse. To truly connect with FourSight, I want to share the insights with others and help them reflect on their own preferences. Before my graduate program began, childcare was my primary job. Although parenting and caretaking are challenging, I felt that with the start of kindergarten for

my oldest son, it was also time for me to step back into the classroom. Motherhood has been a bit lonely, and I found new stimulation and energy in a classroom of other adults.

Since he was now in school, my son began to attract playmates, opening up an avenue for me, in turn, to widen my circle. With the subsequent lifting of COVID-19 restrictions and the return to in-person learning, my son has developed a strong group of friends, and I have been fortunate to forge friendships with their parents. These new friendships and connections have influenced my perspectives and guided my thinking on FourSight preferences and creativity in motherhood. I have found a sense of camaraderie and support that I didn't realize I was missing. My interactions with other parents have brought new ideas and perspectives into my life, enriching both my personal and academic growth. As I navigate the challenges of raising my children and pursuing my own interests, I am grateful for the community that has welcomed me with open arms. The connections I have made have added another dimension to my understanding of creativity and the importance of building relationships with like-minded individuals.

By exploring this intersection, I hope to contribute valuable insights to the field of creative studies and offer practical strategies for mothers looking to enhance their creativity in daily life. This project aims to highlight the unique ways in which creativity can positively impact the lives of mothers and empower them to navigate challenges with innovation and resilience.

The women that I have become close to, who share similar responsibilities of balancing motherhood and personal fulfillment, will be my collaborators in this study. I am eager to dive into this research project and explore how creativity plays a role in the lives of these mothers. I hope to uncover patterns in the ways in which different FourSight preferences are utilized, shedding light on the unique challenges and strengths that mothers possess in their creative problem-solving abilities. By studying how they navigate the complexities of motherhood, I hope to uncover valuable insights that can benefit not only myself but also other mothers. In forming

a support network with these wonderful women, I aim to not only gather valuable data for my project but also foster a sense of community and mutual understanding among us. Ultimately, I believe that by studying and celebrating the creativity of mothers, we can empower them to thrive in all aspects of their lives.

*Go with the flow and always find enjoyment.
There is no other moment. There is no other time.
So love it. Always! Then all is an opportunity for joy.
-Mother Wisdom, Cameron & Crook, 2007, p. 88*

In brainstorming topics for my graduate project, I reflected on my interests throughout the course of my studies and highlighted areas where I found inspiration. Generating a modest list of 92 ideas, I found that 32 centered around creativity in children, family, and/or parenting; 19 were about how creativity affects us socially and/or emotionally; 18 were about the nature or characteristics of creativity; 15 were about creativity in the workplace or the history of industry; and eight were focused on creativity as expression. Creativity in family life generated the most responses, which makes sense as roughly 83% of my waking time is spent managing a household, three children, and a marriage. Exploring creativity in family life has been particularly rewarding, as I have found new ways to engage my children and strengthen our bonds through various creative activities. It has also helped me see the value of fostering creativity in the home environment and how it can positively impact our relationships. As I continue to delve deeper into this topic, I hope to discover even more ways to incorporate creativity into our daily lives and create lasting memories with my loved ones.

As I mentioned earlier, the impact that the FourSight Thinking Profile had on me and experiencing the energy and passion for the program from Dr. Cabra have stuck with me for the last five years. To help others experience the same eye-opening insights would be amazing. As I reach out to others who have become certified or had their own thinking preference assessed, they are encouraging and excited by the prospect of me sharing the same journey. There has

also been a solid body of research and empirical evidence that supports the measure since its inception (FourSight Technical Manual, 2002; FourSight Research Supplement, 2018; FourSight Interpretive Guide, 2022). Sifting through this evidence will allow me to gain greater insight on the methodology of the measure as well as its implications for other uses.

SECTION TWO: PERTINENT LITERATURE AND RESOURCES

In my pursuit of understanding human potential and well-being, I've led extensive exploration across various psychological and neuroscientific domains. Among the foundational frameworks in this endeavor is Maslow's hierarchy of needs, a theoretical model that articulates the stages of human development and self-actualization. This model not only highlights the importance of fulfilling basic physiological and psychological needs but also helps to define the pinnacle of personal growth, where individuals achieve their fullest potential.

In seeking to clarify the various stages of human development, I've identified important research by Dr. Ruth Richards on the integral role of everyday creativity in self-actualization. Especially within the function of motherhood, this is increasingly recognized for its significant impacts on mental health. Everyday creativity refers to the novel and meaningful activities that individuals engage in daily, ranging from problem-solving to artistic expression. Research suggests that such creative activities foster emotional resilience, reduce stress, and enhance overall psychological well-being.

In parallel, the concept of flow, as introduced by Mihaly Csikszentmihalyi, provides insight into the optimal experiences that contribute to evolutionary differentiation and integration. Flow is characterized by a state of deep immersion and enjoyment in an activity, leading to enhanced performance and personal growth. Defining the flow state in the context of creativity is essential for understanding how individuals can achieve a harmonious balance between their skills and challenges, promoting cognitive and emotional integration.

Additionally, the role of play in childhood development and well-being throughout adulthood has been well documented in the areas of neuroscience, psychology, sociology, and ethnology. Play is not merely a recreational activity but a vital process that shapes cognitive and emotional intelligence. Through playful interactions and explorations in infancy and childhood, individuals develop critical thinking skills, emotional regulation, and social competence, which are foundational for adaptive capacities throughout life.

This literature review aims to synthesize these interconnected ideas, exploring how Maslow's hierarchy of needs and self-actualization, everyday creativity, the flow state, and the neurodevelopmental role of play collectively contribute to our understanding of human potential and psychological health. By exploring the connections between these concepts, this review aims to offer a comprehensive perspective on the mechanisms that foster well-being and personal growth.

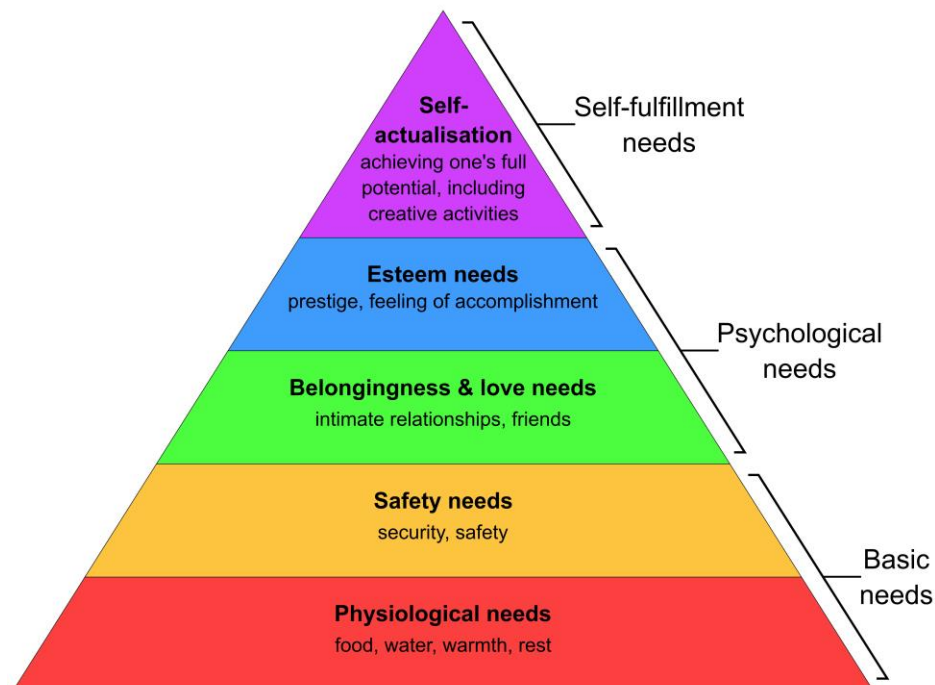
Self-Actualization & Growth

Maslow's Hierarchy of Needs

The hierarchy of needs proposed by Maslow (1943, 1954) is a psychological theory that presents a five-tier framework for understanding human needs. While Maslow did not actually create the representative pyramid model, updated models expand on his theories of self-motivation through the levels of physiological needs to transcendence (Figure 2).

Figure 2

Maslow's Hierarchy of Needs



Simplified hierarchy of needs. Androidmarsexpress www.commons.wikimedia.org, 2022

This model places physiological needs at the bottom-most fundamental level and self-actualization needs at the highest, most advanced level. Physiological needs are biological requirements for human survival, such as air, food, shelter, clothing, warmth, sex, and sleep. Once these needs are met, the next level up continues to motivate us. Safety needs involve order, predictability, and control in our lives, which can be fulfilled by family and society. Social needs involve feelings of belongingness, love, and connection. The third level of human needs, interpersonal, involves feelings of belongingness. According to Maslow (1943), humans desire belonging and acceptance among social groups, regardless of size. This sense of belonging is based on receiving acceptance, respect, and love. Large social groups can include social clubs, co-workers, religious groups, professional organizations, sports teams, gangs, or online communities (McLeod, 2021). Small social connections include family members, intimate partners, mentors, colleagues, and confidants.

When the connections of love or belonging are lacking or not fully developed, loneliness, social anxiety, and clinical depression can occur (Crandall et al., 2020). This need is particularly strong in childhood and can override the need for safety, as in cases of abuse or neglect. Mental health plays a significant role in an individual's development, and when needs are not met, this can lead to higher rates of loneliness, social anxiety, and depression during adolescence and young adulthood (Copley, 2024). Higher-income families are more likely to have lower depression rates due to meeting basic needs at a higher rate and with better quality. In some situations, the need for belonging may override physiological and security needs due to peer pressure (Kenrick et al., 2020). For others, self-esteem is more important than belonging, and creative fulfillment may supersede basic needs. This may indicate a higher level of intrinsic motivation, which differs between individuals (McLeod, 2021). Although self-actualizers tend to share certain characteristics (Maslow, 1970), those who do achieve self-actualization do so in their own unique ways: engaging in advanced creative pursuits; acceptance of reality and one's power over it; being authentically open to new experience; finding greater sense of purpose and

meaning; experiencing moments of intense wonder, joy and connection with the world; strong devotion to one's principles and values, and a lifelong commitment to personal development and self-improvement through challenge and learning.

Following the drive for love and belonging, esteem desires come into play. These include self-worth, accomplishment, and respect. Fulfilling these needs helps individuals comprehend their place in the world and achieve a deeper understanding of life and its complexities (Mcleod, 2021). Esteem needs are the recognition and appreciation given to an individual, encompassing self-respect and respect from others. Maslow identified two versions of esteem needs: lower, which seeks respect from others, and higher, which seeks self-respect (Maslow, 1954). The majority of individuals require a steady sense of self-worth, which is realized through the development of genuine abilities and accomplishments (Mcleod, 2021). The version of esteem that is considered "lower" pertains to the desire for respect from others, including aspects of status, recognition, renown, prestige, and attention. The "higher" version of esteem adheres to principles that emphasize the interconnectedness of the levels of actualization rather than their stark separation (Maslow, 1954).

Esteem is derived from daily events and learning opportunities, especially for children (Dodge, Colker, and Heroman, 2002). The development of feelings of self-worth mainly stems from everyday interactions with one's own environment as well as others, including peers and adults (Doucleff, 2021). Esteem needs serve as a catalyst for learning, mastery, self-exploration, self-confidence, and freedom because they are motivated by curiosity and the desire for strength, competence, independence, and other attributes. (Deckers, 2018; Mcleod, 2021). Therefore, it is critical to allow children the opportunity to develop their skills and become proficient learners (Dodge, Colker, and Heroman, 2002). In a society where external motivation is widely recognized and rewarded, the current needs for and interpretations of esteem have grown increasingly complex (Copley, 2024). In today's world, it can be difficult to strike a balance between the desire for recognition and the need for genuine self-worth. Furthermore,

self-actualization is a concept that focuses on the characteristics of individuals who have achieved their potential through self-fulfillment, seeking personal growth, and peak experiences. Transcendence represents the human desire to connect with a higher reality, purpose, or universe, emphasizing altruism, spiritual connection, and helping others achieve their potential (McLeod, 2021). Examples of transcendence needs include mystical experiences, nature, aesthetic experiences, sexual experiences, service to others, and the pursuit of science and religious faith.

Maslow (1970, in McLeod, 2021) identified 15 characteristics of self-actualizers, including:

- efficient perception of reality
- acceptance of oneself and others
- spontaneity in thought and action
- problem-centeredness
- unusual sense of humor
- objectivity
- creativity
- need for privacy
- concern for humanity's welfare
- deep appreciation of basic life experiences
- strong moral and ethical standards.

Furthermore, Maslow (1970, in McLeod, 2021) states that while individuals achieve self-actualization in their own unique ways, they do share certain behaviors which promote self-actualization:

- experiencing life like a child
- trying new things
- listening to one's feelings
- avoiding pretense
- being prepared to be unpopular
- taking responsibility
- trying to identify defenses

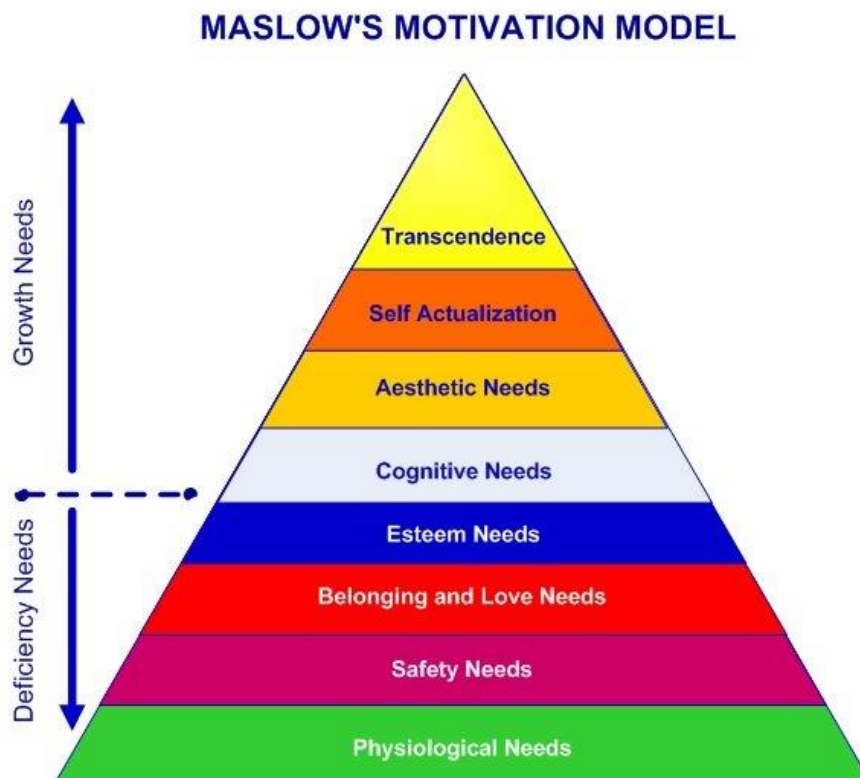
While Maslow believed that all individuals experience transitory moments of self-actualization, he continued to refine his theory over several decades, stating that the hierarchy is

flexible based on external circumstances, individual differences, and concurrent competing needs (Copley, 2024; Maslow, 1943, 1962, 1987; Mcleod, 2021).

In the revised hierarchy (Maslow, 1970a), two categories can be made from the five-stage model: growth needs and deficiency needs (Figure 3).

Figure 3

Maslow's Motivation Model



Note. Maslow's expanded hierarchical model. *Motivation and Personality*, Abraham Maslow, 1970.

Deprivation of the lower levels triggers deficiency demands, which include physiological and safety needs. When these are not satisfied, the consequences grow more severe. Conversely, psychological growth necessitates self-actualization and realizing one's full potential. These criteria, driven by a desire to grow individually, are addressed by intellectual and artistic activity. Although there is a logical progression to meeting fundamental needs before intellectual needs, Maslow (1987) restated the scales and clarified that it is not an “all-or-none”

phenomenon. Basically, once a deficit is “more or less” satisfied, it will diminish, and it’s not necessary for it to be 100% met for the next need to arise.

John Dewey (1934), in his foundational writings on art, education, and experience, sums up the essence of human struggle for balance, overcoming, and growth itself:

Every need, say hunger for fresh air or food, is a lack that denotes at least a temporary absence of adequate adjustment with surroundings. But it is also a demand, a reaching out into the environment to make good the lack and to restore adjustment by building at least a temporary equilibrium. Life itself consists of phases in which the organism falls out of step with the march of surrounding things and then recovers unison with it—either through effort or by some happy chance. And, in a growing life, the recovery is never mere return to a prior state, for it is enriched by the state of disparity and resistance through which it has successfully passed. If the gap between organism and environment is too wide, the creature dies. If its activity is not enhanced by the temporary alienation, it merely subsists. Life grows when a temporary falling out is a transition to a more extensive balance of the energies of the organism with those of the conditions under which it lives. (pp. 13)

The passage underscores the dynamic relationship between an organism's needs and its environment, which resonates with Maslow's hierarchy of needs. It depicts the needs as signals of a temporary imbalance between the organism and its surroundings, provoking a demand for adjustment in order to restore balance. Life is portrayed as a continuous process of navigating through phases of discord and harmony, with growth and enrichment emerging from overcoming challenges, rather than mere return to prior states. The individual's pursuit of equilibrium and alignment with its environment reflects Maslow's theory of self-actualization, in which individuals strive for fulfillment and growth by expanding through hierarchical needs, while continuously adapting to their circumstances.

In conclusion, Maslow's hierarchy of needs outlines five levels of human requirements for survival and growth: physiological, social, interpersonal, and self-actualization. The hierarchy distinguishes between deficiency needs and growth needs. Deficiency needs are those required for meeting physiological and safety conditions, while the fulfillment of psychological and intellectual desires promotes self-actualization and reaching one's full potential. The base

physiological needs include survival, safety, and social needs, while successive interpersonal needs involve belonging and acceptance. After that, esteem needs, essential for understanding our place in the world, come from daily interactions and learning opportunities, promoting learning, mastery, self-exploration, and freedom. Fulfillment of these ultimately fosters self-worth, accomplishment, and respect; respect from others, and more importantly, self-respect.

Finally, self-actualization involves realizing personal potential, self-fulfillment, and finding peak experiences. The characteristics of acceptance, spontaneity, objectivity, creativity, and strong moral and ethical standards are shared among those who reach self-actualization.

I see 'reflective mothering' working in two ways. Firstly, I am constantly learning about myself as a person as I see myself reflected in my children, like holding a mirror. Secondly, I am perpetually learning as I observe and reflect on their amazing development. I find it scary sometimes to think how much we affect our children's development. -Mother Wisdom, Cameron & Crook, 2007, p. 40

Everyday Creativity: Our Hidden Potential (Ruth Richards)

Richards, R. (2007). Everyday creativity: Our hidden potential. In *Everyday creativity and new views of human nature: Psychological, social, and spiritual perspectives*, pp. 25-53. American Psychological Association.

The article "Everyday Creativity: Our Hidden Potential" by Dr. Ruth Richards (2007) explores the concept of everyday creativity and its significance in our lives. The author emphasizes that everyday creativity, such as finding innovative solutions to household problems or experimenting with new recipes, is fundamental to our survival and adaptation in various aspects of daily life. The report delves into the reasons why everyday creativity is often overlooked and undervalued, despite its positive impact on health, well-being, and fostering a sense of community. It discusses the historical roots of everyday creativity, linking it to John Dewey's (1934) innovative education and the "phenotypic plasticity" of the brain noted by evolution science. However, Richards argues that our everyday creativity is so integral, yet

subconscious that it suffers from the three "U's": it's underdeveloped, underrecognized, and underrewarded. This lack of recognition and encouragement for everyday creativity may be hindering individuals from fully tapping into their creative potential and reaping the benefits that come with it. By shedding light on the importance of everyday creativity and the impact it has on our lives, Richards believes society can begin to shift its focus towards nurturing and celebrating this innate human ability. It is crucial for individuals to be given the opportunity to explore and express their creativity in order to enhance their overall well-being and contribute positively to the world around them.

Additionally, Richards highlights psychological and emotional obstacles, such as self-doubt, social mores, and the fear of exploring unconscious thoughts, that individuals grapple with in expressing their everyday creativity. Richards posits that societal and cultural factors, like the pressure to conform to traditional norms and the stigmatization of unconventional ideas, that may hinder the recognition and appreciation of everyday imaginative thinking, shedding light on the tendency to pathologize creativeness and the misconception that creativity is abnormal or potentially dangerous. Her research and understanding emphasize the need to recognize and nurture everyday creativity, considering its potential for personal development, resilience, enhanced problem-solving skills, and overall well-being.

By encouraging individuals to embrace their creative impulses and view them as a natural and beneficial part of the human experience, Richards advocates for a transformative shift in societal attitudes towards creativity, fostering a culture of innovation and collaboration. She suggests that by recognizing and celebrating everyday creativity, individuals can tap into a powerful source of personal growth, increased self-confidence, and fulfillment in their daily lives. Ultimately, Richards argues that by overcoming barriers to creative expression and fostering a culture that values imagination and innovation, society can benefit from enhanced problem-solving abilities, increased social cohesion, and the transformative potential of everyday creativity.

Overall, Richards provides valuable insights into the significance of everyday creativity and the obstacles that individuals and society face in fully embracing and appreciating it. It encourages a shift in perspective towards recognizing the inherent value of everyday creativity in promoting personal growth, enhancing mental health, fostering resilience, and enabling adaptive responses to life's challenges.

Richards, R. (2010). Everyday Creativity: Process and way of life – Four key issues. In *The Cambridge handbook of creativity*, pp. 189-215.

The article "Everyday Creativity: Process and Way of Life" by Dr. Ruth Richards explores the concept of everyday creativity and its impact on various aspects of human life. It emphasizes the significance of everyday creativity in enhancing physical and psychological health, promoting adaptive coping mechanisms, and fostering resilience. She emphasizes that "everyday creativity is about everyone, throughout our lives; it is fundamental to our survival."

Richards provides a comprehensive exploration of everyday creativity, its operationalization, benefits, and association with mental health, particularly the potential influence of various mental states in fostering creativity and insights. She emphasizes the intentional and stylistic methods of creativity, highlighting the importance of intuition, confidence, and intellect in developing creative solutions like focused practice and divergent thinking. Additionally, she looks at how creative outlets can help promote psychological well-being by reducing stress, improving mood, and boosting the immune system. Finally, the role of creativity in promoting healthy aging, acceptance of one's condition, and discovering meaning and joy in life are fundamental to what makes us evolved creatures.

Ultimately, the text offers a rich understanding of the multifaceted nature of creativity and its implications for human well-being. By embracing everyday creativity, individuals can infuse their lives with purpose and meaning, allowing for a more enriching and fulfilling existence. This creative approach to daily tasks and challenges not only enhances problem-solving skills but also promotes mental well-being and resilience. Through exploring different

avenues of creativity, from intuitive insights to structured stylistic approaches, individuals can tap into their inner resources and cultivate a deeper connection with themselves and the world around them. In essence, embracing everyday creativity is a powerful tool for personal growth, self-expression, and overall life satisfaction.

Flow and Human Evolution

Csikszentmihalyi, M. (2014). *Flow and the Foundations of Positive Psychology: The Collected Works of Mihaly Csikszentmihalyi* (1st ed. 2014.). Springer Netherlands. <https://doi.org/10.1007/978-94-017-9088-8>

In his works on positive psychology, such as 'Beyond Boredom and Anxiety' (1975) and 'Optimal Experience' (1992), Dr. Mihaly Csikszentmihalyi identified a mental state in which an individual is completely engrossed in a sense of energizing focus, full engagement, and delight in the process of executing an activity. Following extensive research (Csikszentmihalyi, 2017) in the fields of philosophy, Freudian and Jungian theories, creative arts, and scientific achievements, he identified psychological and physiological drives that motivated humans in their highest pursuits. Through subsequent interviews with people on their various modes of play (rock climbing, chess, dance, basketball, and music composition), he identified a common sensation among them all: "being in the zone." He coined this term "flow", and through subsequent research (Csikszentmihalyi & Nakamura, 2017), six factors were identified that define the experience of flow:

1. Intense and focused concentration on the present moment.
2. The merging of action and awareness.
3. A loss of reflective self-consciousness.
4. A sense of personal control or agency over the situation or activity.
5. A distortion of temporal experience occurs when one's subjective experience of time is altered.
6. Experience of the activity as intrinsically rewarding, also referred to as autotelic experience.

Intrinsic motivation is a powerful driving force that compels individuals to engage in pleasurable activities. Activities that foster intrinsically satisfying experiences must have clear goals, optimal difficulty, and also provide timely feedback. These factors help individuals manage the ever-evolving environmental demands of engaging activities and adapt their behavior accordingly.

The idea of "flow," or the best possible human experience, is at the forefront of evolution (Csikszentmihalyi, 1985). Our neurological system, which links basic survival needs such as food and intercourse with pleasure, demonstrates the relationship between enjoyment and fundamental evolutionary needs. While finding enjoyment in life's necessities is crucial for survival, those who engage in activities beyond survival needs are more likely to undergo personal growth and development out of that crucial comfort zone. Humans seek flow in order to surpass their current limitations, and through our very evolution, it has become an essential catalyst for stimulating creativity and pursuing optimal engagement and experience.

Selections regarding the trajectory of evolution are influenced by the intricate balance of differentiation and integration, much like the creative problem-solving method of divergence and convergence (Csikszentmihalyi, 2014). He maintains, undoubtedly, that the state of flow in humans is deemed pivotal in facilitating this intricate process which is crucial to our survival.

Following 100 years of explosive growth through industrial and technological innovations, we now find ourselves in a state of significant entropy. Csikszentmihalyi in an interview (2017) on flow and the soul, clarifies that the perpetual struggle for existence—differentiation—is what extinguishes the lowest forms and continually drives further evolution—integration. Modern philosophy, religion, literature, and the arts have all developed as a result of continual change, growth, decay, and our desire to transcend who we were before. Understanding the mechanics of flow and its profound impact on cognitive growth is crucial for social scientists, parents, and caregivers alike. Likewise, gaining a deeper understanding of the notion of flow as a crucial “metaskill” can aid in our understanding of our species and the

prospects it offers for personal growth and societal progress. In order to enhance the well-being, academic performance and cultivate the innate drive and competence needed for future success, there needs to be a greater emphasis on the activities, environments, and feedback that promote and enhance flow states and learning. Then the bigger question: How is this done??? Stay tuned, dear reader.

The sensation of flow has been likened to a profound and particular human drive to succeed, surpass, and overcome adversity. However, Csikszentmihalyi (2017) stresses the vital importance of comprehending how our decisions affect all members of the ecosystem, including plants, animals, water, and air. He argues that there needs to be a transformative change in how we perceive our personal and collective duties, as well as our accountability towards the planet, our loved ones, and our own well-being. Furthermore, he asserts that all of our actions have consequences and that by treating our partners, children, and collaborators with dignity, respect, and compassion, we may pass on knowledge, encourage diligence, and continue to evolve.

Motherhood: it's not a job, it's not a hobby, it's a state of mind. It's about choosing to be responsible for raising a human being who will one day not only stand on their own but also have the ability to love, empathize, and understand. It's about sharing your heart and soul with someone, about being so intertwined with another person that you can't imagine where you end and they begin. It's about moments - moments of laughter, tears, frustration, and joy - that etch themselves into the very core of your being, forever changing you. Motherhood is about being completely lost in the love you have for your child, in the magic of the moment you share, and in the endless journey of growth and discovery together.

- Reflections on Motherhood, Inspired by the sentiments of Jodi Picoult, 2024

Play: The Essence of Human Existence

Brown, S. & Vaughan, C. (2010). *Play: How it shapes the brain, opens the imagination, and invigorates the soul.* Paperback; Avery.

Gray, P. (2013). *Free to learn: why unleashing the instinct to play will make our children happier, more self-reliant, and better students for life.* Basic Books.

Introduction

In the rush of daily life, play often takes a backseat to responsibilities and obligations. However, research consistently shows the vital role of play in maintaining mental well-being and fostering personal growth (Nell & Drew, 2013; Eberle & Brown, 2024). From infancy through childhood, play forms neural connections that become the foundations of much of our subsequent brain growth (Brown & Vaughan, 2010). Through play, humans practice social and emotional skills, hone physical abilities, and foster psychological needs for happiness and well-being including autonomy, competence, and relatedness (Ryan & Deci, 2000). Into to adulthood, engaging in play offers numerous benefits, including enhancing social skills, building resilience, and reducing stress levels.

Importantly, there are numerous ways in which play manifests itself through a variety of personalities and behaviors that offer unique opportunities for personal development and fulfillment from a practical standpoint, play extends beyond enjoyment, encompassing physical health, stress reduction, cultural understanding, and lifelong learning. By recognizing the importance of play in human experience, we can unlock its transformative potential to enhance psychological well-being and enrich our lives with joy and fulfillment.

The Science of Play

The most effective kind of education is that a child should play amongst lovely things.
– Plato

Play is the highest form of research.
– Albert Einstein

Instinct. Maslow's Hierarchy of Needs (Maslow, 1970) captures the basic needs in the early life of the child. The first months of life are directed towards fulfilling the needs of shelter, safety and nourishment. Beyond three months of age, infants began to engage their world and establish the connections of love and belonging and building new knowledge (Brown & Vaughan, 2010). During the period from infancy to early childhood, a newborn's cortex starts forming neuronal connections as they acquire the ability to use and then play with their fingers, arms, legs, and toes (Brown & Vaughan, 2010). Eventually babies become capable of moving around to investigate and gain knowledge from their surroundings (Figure 4).

Figure 4

Playing in the Sand



Note. Baby A. enjoys in his first sandy beach. Photo: Laine Walnicki, 2015.

The activation of play then triggers a cascading series of events where the connected neurons generate a chain reaction of activity to higher brain processes (Brown & Vaughan, 2010). As neurons in the brain fire through new and repeated stimuli, more neural connections are formed. The frequency of activation directly correlates with the frequency of stimulus, resulting in increased connectivity and strengthened neural connections. The neural connections formed during play are the brain's wiring patterns that enhance our ability to

regulate movement, cognition, and emotions (Brown & Vaughan, 2010). Play comes from deep centers and nourishes higher centers as part of our essential biological design.

Animal play research (Brown & Vaughan, 2010; Fagen, 1981) has discovered that play is hard-wired into the survival centers of the playful mammal brain, which reflects a deep instinctive need. Our human subconscious brain is nearly identical to that of other playful mammals like rats, puppies, and bear cubs. Animal-like play is a crucial aspect of human behavior throughout all life stages. For example, research on animal play has shown that young rats engage in play behavior to develop social skills and establish hierarchies within their groups, similar to how human children use play to learn important social skills. Additionally, studies have found that play deprivation in animals can lead to decreased brain development and increased levels of stress hormones, highlighting the importance of play in promoting healthy brain function and emotional well-being (Brown & Vaughan, 2010).

Attunement is the Beginning of Play. Even before birth, babies are influenced by play (Brown & Vaughan, 2010). Babies emerge helpless, but their nascent neural circuits have been established through the influence of their mother's nutrition, activities, hormones, and stressors. These influences help shape the neural circuits that begin to set brain patterns for the rest of our lives and provide the initial links for mother and child bonding. This harmonic meeting of the minds, called "attunement" (Brown, 2023; Brown & Vaughan, 2010) becomes a foundation for more complex states of play throughout life. Attunement, the grounding base of play, is evident by three or four months of age when a child is well fed and safe, and a mother's emotional state is open and calm. The awareness the mother and child develop for each other is crucial for later emotional self-regulation, as it affects the executive tasks in the right prefrontal cortex. Early attunement between parents and their infant contributes to the rapid growth of this brain region and makes it more vulnerable to deprivation and underdevelopment (Brown & Vaughan, 2010). Play through attunement cushions developing infants and children from strong emotions and has been shown to help coordinate the complex network of genetic signals and

foster emotional regulatory centers of the brain. Emotional development begins with attunement play activities and the creation of environments that stimulate positive brain activity through direct face-to-face connection and eye contact (Brown, 2023). This early bonding through attunement sets the stage for the future development of strong ties and positive relationships in addition to influencing the brain's ability to control emotions (Figure 5) (Brown & Vaughan, 2010).

Figure 5

Baking Fun



Note. Little L. bakes cookies and plays with mom. Photo: Laine Walnicki, 2024.

Neoteny. Another major theme in the evolution of playful animals is the characteristic of neoteny. Neoteny, or the genetic mechanism that allows for the retention of youthful traits even as one ages, is the fundamental basis of our design according to Brown and Vaughan (2010). Our extensive history as hunter-gatherers demonstrates an inherent genetic predisposition for lifelong play. Gray (2023), in his studies on traditional hunter-gatherer societies, has discovered that lifelong play exists in almost every aspect of activity such as hunting games, gathering rituals and celebrations, and the playful nature of adults interacting with all children of the society. Neoteny in humans is similar to that of primates and

domesticated pets and serves the genetic mechanism that allows us to retain youthful characteristics even as we age (Brown, 2023; Brown & Vaughan, 2010). This playful characteristic has led to greater adaptability and exploration as a species, contributing to our cultivation of music, arts and sciences, and also allows humans to stretch their juvenile development well into teen years (Brown & Vaughan, 2010). With healthy conditions in environment and in person, play can continue to foster neural connections, even repair and stave off damage of the brain. Perhaps it is the most important factor in reaching self-actualization.

Characterizations of Play. Dr. Stuart Brown's (Brown & Vaughan, 2010) book *Play: How It Shapes the Brain, Opens the Imagination, and Invigorates the Soul* feels less like a scientific study and more like a reflection on how fun life is when we open up and play. The book, reflecting Dr. Brown's nature, is playful, with personal stories, interesting but approachable science, and photo examples scattered throughout. Play, he asserts, is best understood when it's demonstrated and recognized (Figure 6).

Figure 6

Boy Plays in the Rain



Note. Boy S. constructs a fort to keep dry. Photo: Laine Walnicki, 2021.

Brown, professor, researcher, psychologist, and founder of the National Institute of Play, broadly defines play as a mental state rather than an activity (Brown & Vaughan, 2010). Play, he continues, is also voluntary, with an intrinsic attraction, free from time constraints, but also appears to serve no immediate survival need. It provides freedom from time and the awareness of self; when we play, we stop thinking about thinking and are fully immersed in the moment.

In his book *Free to Learn: Why Unleashing the Instinct to Play Will Make Our Children Happier, More Self-Reliant, and Better Students for Life*, psychology researcher Peter Gray (2013, p. 140) describes play as a general state of mind that can be from zero to 100% engaged, and follows the five core tenants:

1. Activity that is voluntarily selected and independently guided.
2. The individual is intrinsically motivated, meaning that they place more value on the means than the ends.
3. Arranged or organized according to predetermined rules within the player's cognition.
4. Imaginative, or possessing a creative element.
5. A playful state of mind—the player is very engaged, alert, mentally active, and focused on the activity, but is not stressed about the activity (they have no fear of judgment, and there are no consequences that matter outside of the activity itself).

The player exhibits a state of mind characterized by playfulness, high engagement, mental agility, and intense focus on the activity. They are devoid of tension, fear of judgment, and any external consequences that may arise from the activity (Figure 7).

Figure 7

Cousins Play Together



Note. Kids enjoy free play on the trampoline. Photo: Laine Walnicki, 2022.

Brown asserts (2023) the universal appeal of play lies in its intrinsic nature and its ability to transcend boundaries and limitations. He describes the most genuine format of play as "authentic play" (p. 35) or that which integrates deep physiological, emotional, and cognitive capacity. As the influences harmonize within a person engaged in play, there is a balance between the pull of the head and of the heart (Brown & Vaughan, 2010). Play brings our innate motivations, unconscious desires, and needs to life.

Finally, play is a voluntary, pleasurable, and spontaneous action or behavior entails participating in activities for the purpose of enjoyment, entertainment, or leisure, without any external demands or explicit objectives. It is usually defined by a sense of creativity, imagination, and the liberty to engage in exploration and experimentation. Other qualities of play include a diminished consciousness of self, the potential to improvise along the way, and the continuation desire, in which the enjoyable experience drives the desire to keep the activity going (Brown & Vaughan, 2010). Most importantly, Brown likens all these elements of play,

when felt fully together, to being in what Mihaly Csikszentmihalyi calls a state of "flow" (Csikszentmihalyi, 2014).

Types of Play and Play Personalities. The world is play is expansive, encompassing a rich tapestry of play activities and experiences. Dr. Stuart Brown (Brown & Vaughan, 2010) asserts that diverse types of play not only provide avenues for learning but also shape individuals' unique play personalities. The types of play include imaginative play, physical play, social play, and constructive play. Each type offers unique opportunities for children to learn and grow, building essential skills for navigating the complexities of life. Along with different types of play, a person's play personality is developed and strengthened through early exploration and experimentation.

Different play personalities include characteristics of storytelling, collecting, competition, creation, movement, and exploration (Figures 8 & 9). By combining various forms of play with individual tendencies for play, children and adults can create a diverse and enriching experience that fits their interests and strengths. This fosters further self-exploration and self-expression and enhances creativity, problem-solving abilities, and overall well-being for individuals of all ages.

Play is the exultation of the possible.

– Martin Buber, existentialist & philosopher

Figure 8

Boys Frolic in the Water



Note. Brothers A. and S. experimenting at the beach.
Photo: Laine Walnicki, 2021.

Figure 9

Baby Experiments with Sand



Note. Baby L. concentrates on sand and shell.
Photo: Laine Walnicki, 2023.

The opposite of Play is not work, it's depression.

-Brian Sutton-Smith, "The Ambiguity of Play"

Play for Psychological, Physical, and Emotional Health and

Resiliency. Play, through attunement bonding, is our earliest language. Through subtle actions, reactions, chain reactions, and further exploratory actions, humans and other mammals develop their vocabulary of emotional connection, cognitive freedom, and life competency. Encouraging a playful mindset early in life fosters critical areas of social and emotional growth in humans (Brown & Vaughan, 2010). When done throughout life, it can stimulate the cognitive and emotional functions of creativity, innovation, and continuous learning, leading to greater adaptability, curiosity, and fulfillment (Brown, 2023). Therefore, recognizing, and prioritizing

play as a vital component of human development can significantly contribute to individuals' overall psychological well-being and quality of life. Beyond emotional connection, cognitive freedom grows from the foundations of joy and relatedness. When strengthened through the aspects of increased mastery, perseverance, three-dimensional thinking, and emotional regulation, cognitive freedoms equate to many outcomes: openness, exploration of possibilities, imagination, innovativeness, and intellectual flexibility. Play is instinctive, and to suppress it is harmful. Many aspects define life-competency from emotional and intellectual capabilities to relatedness and self-determination, and there are many ways to achieve these throughout a lifetime. Play, it seems is ultimately the most effective way to assure the most thorough and effective outcomes for competency (Brown, 2023; Brown & Vaughan, 2010).

The Self-Determination Theory

Numerous research studies (Ackerman, 2024; Ryan & Deci, 2017), spanning diverse age groups, have indicated that the mental growth and well-being of individuals hinge on their ability to meet three core psychological needs: autonomy, competence, and relatedness. This concept relatively intuitive: to feel in control of our lives and effectively handle challenges, we require the freedom to make choices (autonomy), possess the skills to pursue those choices (competence), and have a supportive network of friends and peers (relatedness) who offer emotional support (Ryan & Deci, 2017). Free play, particularly favored by children, fosters competence across the physical, cognitive, and social realms in a safe and enjoyable setting (Brown & Vaughan, 2010). Through experimentation and trial-and-error, children refine problem-solving skills and imaginative interaction with others. This comprehensive approach to development supports competency, autonomy, and relatedness.

Autonomy

Children exploring and learning based on their own interests, means it is done for its own sake rather than for external rewards, which fosters intrinsic motivation. Play that is self-

selected and self-directed gives kids the freedom to decide for themselves what and how to play by changing the rules as they go. This autonomy fosters self-regulation and confidence.

Competence

Play offers a safe environment where kids can explore and learn without worrying about making mistakes since it is imaginative and distinct from the real world. This strengthens self-reliance and self-directed learning. While there are rules for play in mind, flexibility encourages creativity, which teaches children to think critically and solve problems. Because it is performed in a focused, engaged, and generally relaxed state of mind, play encourages an optimistic and open mindset for learning. Approaching play with others in a similar mindset can result in stronger empathy and social skills; this leads to the final component of the self-determination theory, relatedness.

Relatedness

Interplay with others is an important way in which children learn about the difficulties and emotions that arise during social interactions (Brown, 2023). Mental Health America (2023) defines emotional intelligence (EI) as the ability to understand and manage both one's own emotions and the emotions of those around you. As humans age and widen their social circles, their sense of belonging increases as they participate in play with others and tap into common emotions and thoughts. Sharing these thoughts and emotions and working through issues with negotiation and cooperation grows a child's sense of belonging (Gray, 2023, #5).

In play, a child always behaves beyond his average age, above his daily behavior.

In play, it is as though he were a head taller than himself.

– Lev Vygotsky, Sociocultural psychologist

Other Benefits of Play

Moreover, play offers numerous benefits beyond enjoyment and brain development. It promotes physical health, stress reduction, cultural and social learning, practical skill

acquisition, and lifelong learning. Active play can aid physical fitness, prevents health issues like obesity, and acts as a natural stress reliever. It also facilitates cultural exploration, social skill development, and the acquisition of essential life skills.

Play is vital for maintaining a healthy balance in life and enhancing mental well-being. It improves social skills, resilience, and reduces stress levels. Research by Brown (2010, 2023) and Gray (2013; 2023, #15) demonstrates its significant impact on psychological well-being, promoting relaxation, happiness, and fulfillment (Figures 10 & 11). Incorporating play into daily routines fosters overall well-being, coping mechanisms, resilience, and connection with others. In summary, play is not mere entertainment but a potent tool for enhancing overall well-being and fostering personal growth.

Figure 10

Sandcastle



Note. S. concentrates on his sandcastle.
Photo: Laine Walnicki, 2021.

Figure 11

Snow Angel



Note. L. experiments with “snow pellets”.
Photo: Laine Walnicki, 2024.

In conclusion, Dr. Stuart Brown and Peter Gray have demonstrated how play stands as a cornerstone of human development, fostering not only psychological welfare but also physical health and emotional resilience (Figure 12). From nurturing emotional intelligence to promoting

social skills and stress reduction, play serves as a powerful tool for cultivating resilient, emotionally intelligent, and physically healthy individuals across the lifespan. By recognizing and prioritizing play in our lives, we embrace a pathway to greater fulfillment, connection, and overall well-being.

Figure 12

Boys Run Their Own Race



Note. Just one more race, then we can go! Photo: Annie Deck-Miller, 2024.

In the words of Stuart Brown:

Play is how we are made, how we develop and adjust to change. If your life has become barren, play brings it to life again. Play transcends [love and work], infuses them with liveliness and stills time's arrow. Play is the purest expression of love.

-Dr. Stuart Brown

SECTION THREE: PROCESS PLAN

Goals for the Project

- Reflect on my learning in the Creative Studies program and my time as a mother.
- Complete my certification in the FourSight Mindset Certification.
- Examine how FourSight preferences manifest in mothers.
- Meditate on how mothers leverage creativity and their own creative problem-solving preferences in managing their lives and their own well-being.

Personal Goals

- Upon completion of the FourSight Mindset certification, I will be able to deliver the FourSight Thinking Profile assessment to others and help them understand their preferences.
- Use my new-found certification to facilitate 5-6 close family and friends in their own FourSight assessments
- Reflect with family and friends on how their own personal creative problem-solving preferences influence their families
- Reflect on the last five years, and also the last 10 years as a parent and how my preferences have changed and how I've used the knowledge in my own daily creativity
- Present my findings at a future CPSI conference.

Professional Goals

By the end of this Master's Project, I will have received certification in the FourSight Mindset Certification and "get the skills and training I need to deliver a 2-hour workshop that helps people understand themselves and others." (FourSightonline.com) I will be able to use FourSight to "teach a simple, shared framework that makes complex problem solving easier for groups and makes innovation easier for organizations." The certification, along with the classes and research throughout my time in the Creative Studies program, will prepare me to:

- Lead a 1 to 2-hour group session
- Coach an individual on their FourSight profile
- Administer the online assessment

- Interpret the nuances of different profiles
- Catalyze creative thinking
- Enhance communication across preferences
- Coach teams with confidence
- Analyze group profiles
- Teach a common language for problem solving.

Collaborative Goals

While the primary goal of offering the FourSight assessment to my group of mom friends is to complete requirements for my certification, another important aim is to promote collaboration in our parenting responsibilities, encourage play, and share conversations around well-being. By understanding each individual's FourSight profile, we can tailor our activities to cater to each other's strengths and preferences. Meeting to debrief the assessment in a fun and relaxed atmosphere will give us insights into how best to support each other while also allowing us to interpret and reflect on the nuances of different profiles. Through this knowledge, we can work together to catalyze creative thinking and enhance communication across preferences. Simply by cultivating a common language for problem-solving, we can ensure that our group thrives and supports each other in our shared objectives.

Honestly, this is all stuff I am really excited to do. I have been incubating this goal for the past five years. When it first came to my mind, I knew it was a “someday” goal, something I might be ready for when I went back to work or did through a future employer. But now I know I am ready for this. I don't need to wait to be employed, to have graduated, to be anything else but where I am right now.

An Interesting Side Project: Creativity and Play

As I've conducted my research on the influences and challenges of creativity for mothers, I found that I had more questions than answers in some areas. The more I asked and shared my insights with mentors and feedback partners, I realized there was a space I could contribute to

personally as well as academically. The notion of a course in creative play kept surfacing in my mind. I've made notes to investigate this further and compose an outline for what a course in creative play might look like and how it might address some of the deficiencies I've discovered through my research.

Evaluation Plan

- Monitor Schedule & Seek Feedback
 - Regularly check my calendar and schedule for upcoming due dates and meetings.
 - Check in with my advisor, Dr. Molly Holinger, on my progress, new thinking, and suggestions for new methodologies or research questions.
 - Share and reflect with feedback partners and mentors. Talking through my thinking helps me to crystalize my ideas and seek input on gaps I need to address.
 - The FourSight Certification inherently incorporates feedback through its online modules, interactive training sessions, and the granting of the certification based on success on these criteria.

- Note-Taking & Writing
 - Make notes on readings and how they've expanded my thinking, and reflect on how or if they fit into my project.
 - Keep post-it notes handy when thoughts occur that cannot be immediately addressed.
 - Use technology, writing guides, and feedback partners to assist with areas I find challenging: dictating notes, summarizing large amounts of information, and organizing into clear topics and arguments.

- Boundaries
 - Being a full-time stay-at-home parent to three young children is my primary job. It comes with a built-in alarm clock and timer that ensures I do not work too long, too late, or get too absorbed in myself.
 - Motherhood has taught me how to carve out and enforce pockets of time for me to work, provide self-care, and ensure enrichment. However, should I overstep these boundaries, I will suffer the consequences of depleted sleep, subpar nutrition, and increasing demands from my children.

- **Illumination**
 - I will know if my work is successfully balanced when the product of said work is a thorough mental workout that leaves me stimulated and refreshed.
 - Another benchmark of successful growth and achievement of my goals is reconnecting with my children and husband with increased engagement and mindfulness during our time together.
 - Ultimately, finding balance in my life is essential for my overall well-being and happiness. By prioritizing self-care and setting boundaries, I can ensure that I am able to give my best in all aspects of my life. Reconnecting with my family and feeling fulfilled in my work are key indicators that I am on the right path towards achieving a balanced and fulfilling life. It is important for me to remember that taking care of myself is not selfish, but necessary in order to be the best version of myself for those around me.

Project Timeline

Activity	Due Date	Support/Feedback
Submit concept paper for approval	February 18	Dr. Molly Holinger
Begin journaling personal thoughts, conversations with mentors and feedback partners	Ongoing, February 18	Myself, Monica and Mom
Begin research to identify the tools and measures needed for the program	February 21	Myself, Dr. Holinger
Research for sections 1-3	Feb 21-March 3	Past students of CS program, Interviews, Uni Libraries
Begin FourSight certification courses (Self-guided option)	February 27	FourSight Training Coordinator & Staff, Dr. Holinger
CEE Virtual Conference	February 29-March 1	
Zoom call with mentor, Ismet Mamnoon	March 1	Dr. Holinger made intros
Progress on certification process (16 hours)	Bulk done by March 10	FourSight staff and peers
Drafting Sections 1-3	March 9-24	Myself, Dr. H, Feedback partners and mentor, Glenn and kids
Meetings with Mentor and Feedback partners	March 15, 22, 23	Izzy Mamnoon, Monica, Mom
Submit Draft of Sections 1-3	March 24	Dr. Holinger

FourSight assessment and debrief with 1:1 participants	Sometime b/w March 27-April 3	Glenn (husband), Alicia (sister)
Spring Break: vacation to FL with family. Use time to draft 4-6, discuss project/insights with family members	March 25-April 8	Glenn, Kids, My Mom, Aunts
FourSight assessment and debrief with group participants	April 12	Mom Group
Drafting Sections 4-6	March 25-April 14	Dr. H, Classmates, feedback partners, mentors
Submit Sections 4-6	April 21	Dr. Holinger
Class presentations	April 25	Monica, classmates
Final draft of all sections	May 2	Dr. Holinger
Graduation	May 18	Glenn, kids, Bev, Mom, Monica
Submit completed Master's Project to Digital Commons	TBD	Dr. Holinger, everyone cheering me on!

SECTION FOUR: OUTCOMES

*‘Motherhood (and Master’s Projects) are a lot of hard work,
punctuated by moments of sheer joy.’*

-Mother Wisdom, Cameron & Crook

The main outcomes of this project include a summary of the current literature on ‘play’, a firsthand investigation of motherhood and creativity conducted through informal interviews and discussions, and the application of the FourSight creativity measure to a selected group of mothers.

Motherhood, Creativity, and Play: A Literature Review

My initial foray into the literature (Section 2) was highly exploratory, delving into the topics of motherhood, Maslow's hierarchy of needs and self-actualization, everyday creativity, and flow. These constructs, namely self-actualization, the benefits of everyday creativity, and operations of flow are mechanisms under the broader umbrella of creativity that can enable mothers to thrive. This research, in turn, led to the discovery of *play*, which I hadn't explored in previous studies. As a mother, I realized that I hadn't "played" in a long time and that it became the reply to so many of the questions I had been asking.

Therefore, after conducting my initial, broad literature review, I felt it necessary to conduct a further review, solely on the mechanisms and effects of play. Though it addresses overlapping research questions from my original review, my review approaches them through the lens of play, linking together its physiological, psychological, and sociological origin of creativity, human development, and behavior.

Addressing Research Questions

Has Our Connection to Ancestral Ingenuity Been Weakened?

Based on my research, which draws on the works of Brown, Csikszentmihalyi, Gray, and Maslow, I argue that our connection to what we perceive as "ancestral ingenuity" has indeed been impacted and perhaps weakened. Ancestral ingenuity, which I once believed to be a

creative instinct passed from mother to child, I now understand through the framework of developmental psychology and neuroscience.

This framework has made clear how the infantile brain wires itself through innate modes of attunement with its caregivers, learning through movement, and compounding neural activity developed through play. These activities are crucial for wiring the infantile brain, suggesting that ingenuity may actually be the result of fundamental developmental processes that are deeply rooted in our nature as well as the nurturing environment provided by caregivers. The development of our brain through experience and learning from caregivers and the environment is essential for our evolution both as individuals and as a species. It forms the basis for our physiological, psychological, emotional, and behavioral characteristics. The concept of "nurture" encompasses the environmental factors that shape an individual's development, working in tandem with inherent traits or "nature."

It's fair to theorize that modern lifestyles, technological advancements, and family dynamics have weakened long-established developmental behaviors and activities. This has influenced our creativity and problem-solving abilities, and in the longer term, has tested our resiliency, flexibility, and abilities to differentiate and integrate new modes of development. This suggests a need to re-evaluate and reintegrate these foundational practices for holistic development.

What Happens When Maternal Instincts are Overridden?

I wouldn't categorize them as overridden per se, but rather congested with excess information and obscured by misguided reasoning. Peter Gray's article (2023), titled "Why Hunter-Gatherers' Work Was Play," reveals that in hunter-gatherer societies, individuals engaged in work that encompassed a diverse range of essential jobs, which demanded significant levels of ability and intelligence. Additionally, these activities were done in a social setting, which fostered open communication, a relaxed yet supportive atmosphere, and a drive to contribute to the clan as a whole. Although I acknowledge the enduring ingenuity and

resourcefulness of women, I contend that the disintegration of communal hunter-gatherer communities has weakened the fundamental social networks that support women, especially in their childbearing and childrearing capacities. Hence, this has contributed to social isolation and compounded heightened individualism, anxiety, depression, and the erosion of intergenerational wisdom that was once inherent to tribes, villages, and communities.

In order to address these challenges, I see it as crucial for women to come together in modern-day clans or support networks that can provide the same sense of community and shared responsibility. By fostering these connections, women can offer each other emotional support, practical advice, and collective wisdom that can help navigate the complexities of motherhood and family life in today's society. Through collaboration and shared support, women can recreate the strong bonds and intergenerational knowledge that were once the foundation of thriving communities, ensuring a brighter future for themselves and their families.

What Possible Effects Might This Have on a Child's Growth and Eventual Capacity for Creativity?

In the immediate future, it is evident that diminishing maternal support structures alongside increased isolation could result in a detrimental effect on a mother's overall well-being and outlook on society (APA, 'Stress in America 2023'; NIH, 'Maternal Stress'). This could ultimately impact her offspring if the mother does not feel adequately prepared for raising children. Without sustained supports for her own health and well-being, she may be unable to effectively impart knowledge or demonstrate appropriate behaviors for learning and personal development, both for her child and herself (Brown, Gray).

Over time, natural selection will favor individuals who demonstrate resilience, flexibility, and adaptability in response to these changes. They will in turn further the genetic traits of those who prioritize play, learning, and creativity, and effectively transmit these preferences to future generations (Csikszentmihalyi).

What are the Challenges that Future Generations Will Face?

Although it is unfortunate that we cannot revert to a conventional hunter-gatherer culture, I am optimistic that future generations, having endured periods of societal advancement and catastrophic societal breakdown, will possess the ability to adapt and innovate, enabling their survival. This is evident from research (Gray, Richards) that shows resilience and fortitude in past generations overcoming great hardship. I believe the conversations are already shifting from tackling society's challenges to confronting the ultimate question of humanity's survival on Earth (Brown, Csikszentmihalyi).

What is the Impact of Motherhood on Creativity?

Mothers are not merely influenced by creativity; they embody creativity itself (Brown, Richards). From the moment she first lays eyes on her infant, a mother's smile becomes a child's puzzle to unlock. The infant explores new ways to light up their mother's eyes and strengthen their bond, which is nothing short of essential for its survival. A mother and child's early dances of play and bonding—attunement—establishes the fundamental neural network that supports all of the brain's subsequent growth (Brown, Gray). Motherhood has a profound impact on the creativity of her offspring, herself, her environment, and her community. Each mother-child bond and subsequent interactions are different, bringing with it limitless avenues for psychological, emotional, and intellectual development.

What is the Impact of Creativity on Mothers?

Mothers, like humans in general, have evolved from their early influences of play, learning, and subsequent caring for offspring (Brown, Gray). While creative outlets can serve as an important release and path for resiliency, coping, and self-balance in motherhood, they are often sidelined due to a greater shortage of leisure time and higher demands of raising children and also working (GreaterGood.edu). Creativity in its purest form is play, or at least playful (Brown, Gray), and while deficiencies in play can be detrimental, they can be remedied, much like adjustments in diet and sleep habits can lead to better health. Typically, this refers to the

deliberate elimination of play obstacles such as unnecessary material belongings, unsupportive individuals and social structures, and environments that impede play and supportive initiatives in childcare (Csikszentmihalyi, Brown, Gray).

Creative behavior and play are likened to muscles that can be enhanced by consistent exercise (Brown). The range of play aptitude learned in childhood varies greatly from person to person, with some individuals developing more substantial creative capacities as they enter adulthood. Studies have shown (Brown, Richards) that the brain is extremely moldable and grows and adapts well into adulthood. Therefore, play and creativity can have significant impacts beyond childhood (Brown, Gray). Engaging in creative activities has a favorable impact on adults, particularly mothers, and provides significant long-term benefits in health, well-being, and resilience (Brown, Gray, Richards).

Original Research

My investigation into the links between creativity, motherhood, and well-being was also informed through qualitative and quantitative investigation. This was done through semi-structured discussions and the administration of the FourSight Thinking Profile with a small group of peers, all of whom are mothers.

The FourSight Thinking Profile

FourSight Debrief

Using the FourSight Thinking Profile, I gathered a small amount of quantitative data to investigate the relationship between creativity, motherhood, and well-being. As mentioned in my literature review (Section 2), the FourSight Thinking Profile framework and its evaluation are utilized as instruments to quantify preferences in creative problem solving (CPS) (foursightonline.com). The assessment measures individuals' preferences associated with innovative problem-solving in the areas of clarity, ideation, development, and execution of a relevant challenge and its solutions. The measure in this context was used to inform our knowledge and understanding of one another and enhance our future communications as

friends and supports. I also sought to use it in context of my own preferences, as a model for how preferences among mother's are demonstrated and discussed.

Upon completing the measure, the women were invited to an informal debrief meeting where I presented their results and examined them through the larger context of problem-solving preferences. The FourSight Interpretive Guide (2023) offers the following explanation:

Discover your thinking profile

The FourSight Thinking Profile is a scientific measure of thinking preference. It reveals how you naturally approach any kinds of challenge that needs critical and creative thinking. It reveals how you naturally approach any kind of challenge that needs critical and creative thinking. It helps you reflect on your own problem-solving style and understand why other might approach the same problem or opportunity so differently.

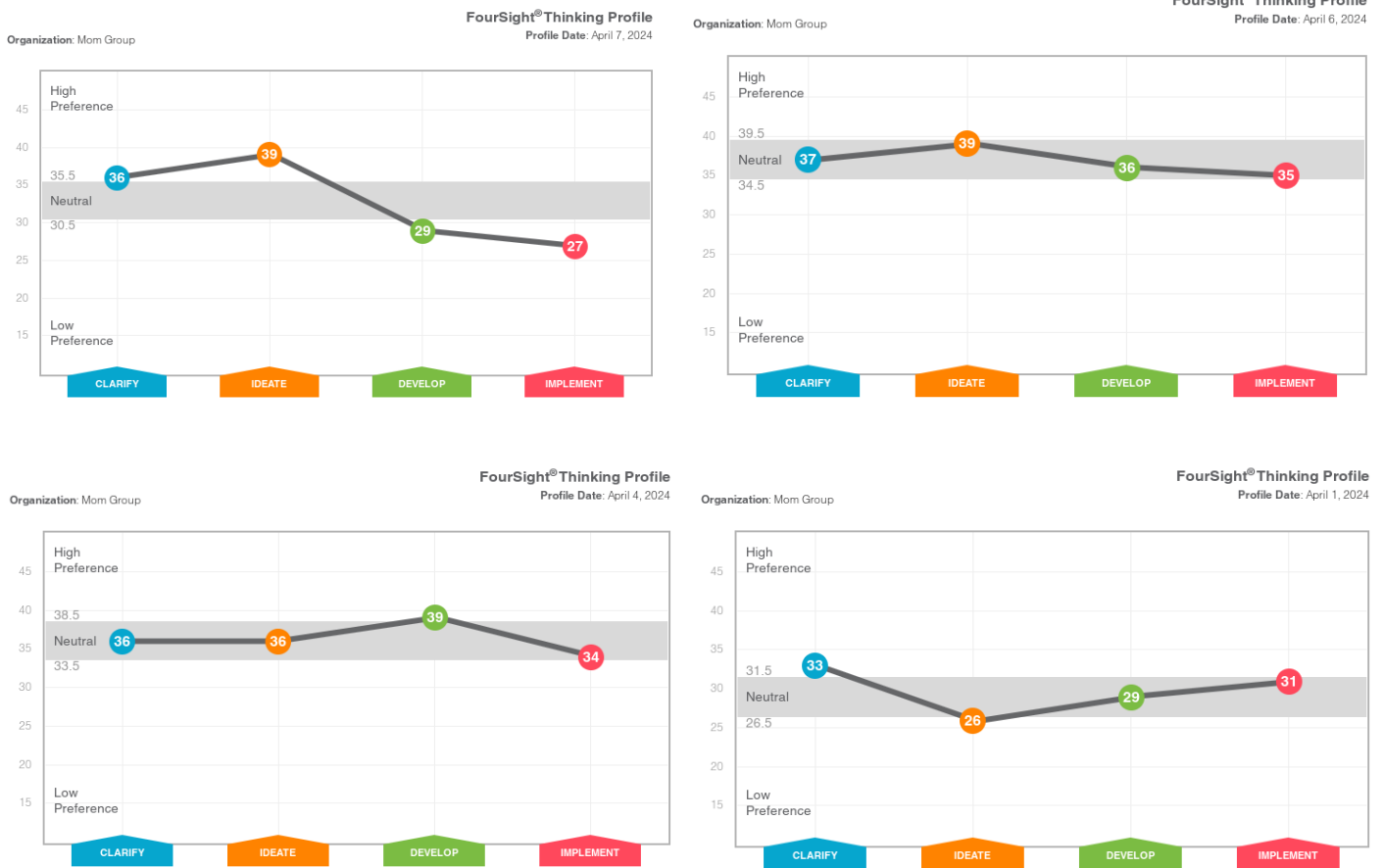
Preference is not ability

We all engage I four types of thinking required to solve a complex challenge. The FourSight assessment doesn't measure thinking ability or skill. It measures thinking preference. The high points on the graph reflect the types of thinking you most prefer. These are probably the parts of the problem-solving process that energize you. Low points show activities you may avoid or shortchange. A high preference does not guarantee ability, nor does a low preference suggest lack of ability.

Because I am personally connected with the mothers in my sample, I had conjectures as to where they would fall among the FourSight preferences. To my surprise, most of the women in the group exhibited only slight preferences, many in the neutral zone (Figure 13). Upon further discussions, we discovered that many of our preferences evened out, and became more like tendencies of over-compensation. During the assessment, several of them admitted to second-guessing the questionnaire, thinking, "Well, this depends on the setting," or "Does this refer to my work self, or home self?"

Figure 13

FourSight Thinking Profile Results



FourSight Thinking Profile assessment results from four subjects. ©FourSight foursightonline.com

With the FourSight preference data in hand, I turned to semi-structured interviews to gain a deeper understanding of the results. The primary question brought about by the quantitative data was, *Why might this tendency toward neutrality exist?* Since I know these mothers intimately, I was able to facilitate a deeper conversation about how and why they reported “level” preferences to suit many different situations.

The following insights emerged from the post-assessment qualitative investigation:

- Overcompensating behavior: Women, particularly mothers, may engage in overcompensating behavior, which can neutralize or diminish their FourSight preferences

and creative tendencies. This behavior often arises as a strategy to adapt to challenges in parenting, partnerships, careers, and leadership roles.

- **Adaptation of abilities:** Women often acquire abilities beyond their initial preferences to navigate personal and professional challenges, sometimes disregarding their natural thinking preferences in favor of developing proficiencies necessary for personal and professional growth.
- **Insight into preferences:** While the FourSight measure may not accurately reflect their preferences, it provides valuable insight into their thinking processes and potential areas of overcompensation.
- **Discussion of alternative measures:** Discussions with the sample group also involved exploring alternative measures of personality, such as the Clifton Strengths Measure (gallup.com/cliftonstrengths) and the Myers-Briggs Type Indicator (myersbriggs.org), highlighting the need for multiple measures to gain a comprehensive understanding of preferences and strengths.

Conclusions

These findings suggest a rich understanding of how women, particularly mothers, navigate their thinking preferences and adapt to various challenges in their personal and professional lives. In regard to play, parenthood often leads to a fragmented sense of self due to, in large part, divided focus. Play can help us reconnect with our true selves and tap into our innate creativity.

Putting Research into Practice: Personal Outcomes

Improved Well-being Through Play

When I immerse myself in play with my children, whether it's building with Lego, painting, or engaging in silly conversations, I feel myself relax, the smile spreading across my face and the joy. Delving deeper into the literature on everyday creativity, flow, and play, I found myself tapping my own play personalities and preferences. Exploration, nurturing curiosity, and letting myself go deep into research mode are ways I experience play, and they also reflect my preferences in the FourSight thinking preference: high ideation and clarification. In accepting my instincts to clarify, ideate, and develop, I gave myself permission to embrace these

tendencies and my tolerance for large amounts of novel information. This allowed my strong sense of intuition to explore connecting threads among my research and seek greater understanding of the larger picture of my own creative needs.

I have witnessed a significant improvement in my personal well-being through setting aside time for exploration and free play. Following my study and writing time, I noticed that I was calmer and more composed when interacting with my children. I became more engaged in our talks and activities and made a conscious effort to fulfill their requests. As I delved deeper into the significance of play for fostering socialization and emotional intelligence, I came to the realization that adopting my own playful mindset has enabled me to strengthen the bond with my children. Undoubtedly, this project has increased my own playfulness, and as a result my own creative expression. Through nurturing my own creative instincts, I clearly discern the advantages for both myself and my offspring: the feedback loop is undeniable.

FourSight Certification

Lastly, an important underlying piece of my project was becoming certified in the FourSight Mindset Reveal assessment. Although I began with FourSight theories as the central driver of my research questions, my exploration led me down a different path, ultimately to play. However, the certification has been a goal of mine since the beginning of my studies and completing it means a great deal. I spent the semester breaking down the FourSight chapters into small pieces to absorb and observe how they fit into my research. A component of the certification is to conduct one-on-one debriefs and a group debrief on the preferences of your subjects. These meetings were challenging to arrange with varying schedules; however, they were deemed worthwhile for all parties involved. True to form, one mom had to attend via Zoom due to illness, and another was lacking childcare and brought along her two children. Flexibility is the name of the game! I look forward to applying the measure in personal and professional settings I the future.

SECTION FIVE: KEY LEARNINGS

'Remember that your children choose you long before you meet them face to face. They choose the parents who will best give them the lessons that they need to fulfil the life that they have to live. So have no fear, because your children will one day be very proud of the choice they made in making you their mum.'

-Mother Wisdom, Cameron & Crook

Shifts in Attitude and Behavior

Throughout this journey, I have uncovered valuable insights that have significantly shaped my understanding and approach to creativity, well-being, and project execution. This section delves into the transformative role of play, the shifts in my attitudes and behaviors, and the important hard and soft skills I have acquired. By embracing these learnings, I have not only enhanced my personal and professional growth but also discovered new ways to enrich my daily life and future endeavors.

In exploring the cultivation of creativity and overall well-being, especially for mothers, the concept that has profoundly resonated with me is the importance of play. The lack of play carries significant consequences for individuals and society, leading to deficits in curiosity, exploration, imagination, fulfillment, and self-determination. Embracing a high level of play proficiency and being open to finding states of flow in both play and work can transform daily activities into sources of joy. This playful mindset not only enhances emotional and cognitive well-being but also boosts creativity and joy, further enriching our lives. Recognizing the foundational and transformative role of play has expanded my thinking, inspiring me to integrate play into my routine with a newfound sense of purpose.

This exciting new perspective has expanded the boundaries of my thinking and inspired me to prioritize play in my daily routine, recognizing its potential to improve well-being and strengthen relationships. Overall, the research on play has opened my eyes to its foundational

and transformative role in our lives. I am excited to explore the numerous possibilities that play can offer and integrate it into my daily routine with a newfound sense of purpose.

Reflecting on my thought piece, I realized that approaching it through my FourSight thinking preferences—clarification and ideation—allowed me to leverage my strengths and engage in the most enjoyable way. Instead of focusing on metrics, products, or processes, I embraced expansive ideation and exploration, which led me to a broader scope than initially planned. This ambiguity and reliance on intuition helped me connect previous learnings with new concepts, highlighting my innate curiosity and ability to link seemingly unrelated ideas.

Acquisition of Hard and Soft Skills

Through this project, I also honed various research and project management techniques:

- **Well-being Practices:** Implementation of various methods such as medication, therapy, exercise, sleep health, prioritizing vacation and downtime, and seeking enjoyment throughout the research process to ensure personal well-being.
- **Support Network:** Reliance on process buddies, feedback partners, mentors, and advisors for information, insights, writing critiques, and sharing project challenges and successes, highlighting their essential role in the project's progress.
- **Utilization of Artificial Intelligence (AI):** Integration of ChatGPT for keyword identification, writing outlines, and generating statement starters to streamline research processes. Utilization of QuillBot Writing Assistant and PopAI for summarizing and paraphrasing large amounts of information, enhancing writing fluency, and organizing research sources effectively.

SECTION SIX: CONCLUSION

New Thinking and Future Steps

My research has greatly enhanced my comprehension of the physiological, psychological, and developmental origins of play and creativity, as well as their significance to human development and behavior. This has enabled me to modify existing concepts in order to analyze and develop original viewpoints. Based on these fresh viewpoints, I have identified certain areas that require further investigation and assessment:

- Further explorations of play: I look forward to researching more on the role of play in creativity development, alternative measures of creativity as play, and the application of FourSight in understanding play behavior.
- Critique of current education emphasis: I'm disappointed with the lack of information on the neurological and evolutionary foundations of creativity, particularly regarding play, in my courses. I advocate for a greater focus on the benefits of play for creativity and well-being in adults.
- Challenge to male-dominated perceptions of creativity: I acknowledge prevalent biases in the creative community favoring male-dominated principles of creativity. I am confident in my ability to achieve success without conforming to traditional masculine ideals, and I emphasize the importance of autonomy in reaching your goals.
- Parental role in fostering creativity: I intend to cultivate creativity in my children by being a well-rounded, creative individual myself and by encouraging my own creative exploration and play.
- Reevaluation of teaching: The research led to questioning teachings in Creativity and Change Leadership courses, prompting a deeper exploration of maternal creativity and influence. This reevaluation suggests the importance of inclusivity and exploring new ways to foster creativity beyond traditional leadership tools and ideals.

- Additionally, your reflection on teaching and research indicates a willingness to explore new approaches to foster creativity and inclusivity.

Overall, the research and reflections demonstrate a deep engagement with the nuances of creativity, a critical assessment of current practices, and a commitment to fostering creativity in both myself and my children while challenging cultural biases.

Where Do I Take it From Here?

- Future research prospects in a Ph.D. program focusing on play, cognitive impact, and positive psychology.
- Exploring the role of play in fatherhood and alternative caregiving.
- Providing guidance to parents regarding the significance of play.
- Utilizing my findings to facilitate a workshop on play (Appendix A)
- Investigating alternative personality and preference measures in relation to creativity and play.
- Building habits and supports to remind myself of my innate curiosity and intellectual drive, and recognize the valuable contributions I make.
- Encouraging play and playfulness without guilt because, as science has shown, play enhances and supports overall well-being.
- Sharing findings with family members and friends, seeking further input and feedback from experts and professionals in the creativity field, and actively engaging more women and mothers in my ongoing research and professional growth.
- Use play and playfulness as the framework for important conversations with my children as they get older. I.e., use play to explore and moderate risk in the areas of financial literacy, sexual exploration, physical pursuits, building and maintaining friendships, and testing mature attitudes.
- Reminding myself of this central tenant to all of my creativity: Me: I'm the outcome. If I am a better me, then I can be a better mom, a better wife, sister, daughter, and friend—a better human. And that's enough.

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Appendix A

Proposal for Adult Creativity and Play workshop

I. Introduction

- Present the thesis: A course in creative play for adults is vital for mental health and overall well-being.
- Explain the significance of creative play for adults.
- Explain the evolution of play and its function in building the structures of the brain.

II. Benefits of Creative Play for Adults

- **Exploring and Practicing Play Styles:** Delve into the various styles of play and how adults can explore and adapt them to suit their preferences and needs. Emphasize the importance of actively engaging in play as a skill that adults can develop and improve over time.
- **Stress Reduction:** Escaping daily pressures, promoting relaxation, and releasing endorphins.
- **Boosting Creativity:** Stimulating imagination, problem-solving, and fostering innovation.
- **Enhancing Social Connections:** Facilitating collaboration, empathy, and communication.

III. Objections to Creative Play for Adults

- **Perceived as Childish or Unproductive:** Misconceptions, lack of understanding, and pressure to be productive.
- **Time and Resource Constraints:** Difficulty finding time, limited access to materials, and financial barriers.

IV. Counterarguments and Responses

- **Importance of Self-Care and Mental Health:** Justifying investment in well-being, emphasizing work-life balance, and highlighting long-term health benefits.
- **Economic and Societal Benefits:** Improving productivity, reducing healthcare costs, and contributing to societal well-being.

V. Conclusion

- A recap of the benefits of creative play for adults.
- Reinforcement of the importance of incorporating play into adult life.
- Call to action for institutions to offer courses in creative play for adults.

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