The Matrix of Human Needs: Reframing Maslow's Hierarchy of Needs

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Abstract:

Maslow's Hierarchy of Needs (Maslow, 1943) is one of the most recognizable psychological concepts in the world. There have been efforts to renovate the model (Kenrick et al, 2010), replace the model itself (Max-Neef 1992), update the model with some of Maslow's later writings (Koltko-Rivera, 2006) or expand the model (Huitt, 2007). Despite these efforts, Maslow's model for understanding human needs continues to be widely used in business, education, and human service settings.

In his original article, Maslow said "The present theory then must be considered to be a suggested program or framework for future research and must stand or fall, not so much on facts available or evidence presented, as upon researches yet to be done, researches suggested perhaps, by the questions raised in this paper." (Maslow, 1943, p370) This article endeavours to build on Maslow's work, incorporating research in the neurobiological impact of childhood trauma (Perry, 2003) and the impact of unmet needs in unsafe conditions which shows that safety is the most fundamental need for all human beings. (Zheng et al, 2016). Maslow said "Lists of drives will get us nowhere for various theoretical and practical reasons." (Maslow, 1943, p 370) Since the publication of that paper and thousands of subsequent articles, books, and presentations, the concept has lost its' dynamic inter-relatedness and become what Maslow was afraid it would become, a list of needs that are often seen as progressive but not interrelated. The Matrix of Needs restores the dynamic and interrelated nature of

human needs in a new format which is written in the same hope Maslow had, that this paper will generate ideas, launch discussions and build a framework for future researchers to better understand what it means to be human, and how to remove the barriers which impede our growth as individuals and as members of the human family.

Introduction:

The process of becoming human does not have a list of needs to be addressed, met, and then relegated to some kind of maintenance mode. Rather, it is a life-long process of assimilation, disequilibrium, and accommodation, a theory developed by Jean Piaget and adapted into Cognitive Development Theory. (Kaiser et al, 2012) This-life long process requires a flexible structure that can adapt to the continual stress of growth and adaptation.

In cellular biology, there is a concept known as the “extra-cellular matrix”, or ECM, that provides a form within which the function of the cells are able to be expressed in ways that sustain the life of that particular organism. For human beings, that matrix is encompassed by the word “safety.” It is the physical, emotional, psychological and social safety we experience that provides the matrix which holds us together. Likewise, war, malnutrition, child abuse and neglect, and the pandemic being experienced in 2020 weaken this matrix to the point that we cannot fulfill our potential to be fully human.

Figure 1: The Matrix of Human Needs:

Unlike Maslow's Hierarchy of Needs, Safety is not a separate need within this structural concept. It is always present as a need, and often we are unaware of the presence of safety until we no longer have it. Rather than talk about stages or levels of need, the Matrix of Human Needs uses the concept of processes that interact with each other to support the development of individuals and groups of people. These process are always ongoing, and while there appears to be a developmental trajectory upwards, the foundation must always be attended to in order to keep the structure sound.

At a neurological level, human beings are designed to live in social groupings and interact with each other on an almost continual basis. (Young, 2008). When we are forced to limit our social interactions, as is the case of the Covid-19 Pandemic of 2020, the lack of social safety has an impact on the entire person, and one could argue, on the entire society. The Matrix of Needs attempts to explain the balance through the observation of human behaviour, with a primary focus on people whose trauma histories have upset the balance. The processes involved in becoming human are seen in stark relief in the pain of the lives of the people I serve, and have served, in the United States, Canada, Europe, and Australia.

These processes are organized in the following structural manner:

Core Needs: Subsistence, Attaching Relationships, Communication

These needs form the core for human life. Without air, water, food, shelter and sleep we would die within minutes, days or weeks depending on which need we are missing. Without a stable attachment, human beings have difficulty in social relationships throughout their lifespan, based on research in attachment theory discussed later in the paper. Communication is, for many people, a novel concept as a foundational need. However, without communication social relationships could not exist.

Growth Needs: Achievement, Social Relationships

Once our foundational processes are in place, we then can work on the next set of processes, which are achievement and social relationships. Those of us who have had the experience of raising or being around small children have heard the “I do it” pride of a child practicing their independence in some kind of skill. At the same time they are working on achieving a goal, they are also working on developing their social relationships beyond the base attachments formed with significant adults in their lives.

Maturity Needs: Autonomy and Affiliation

As we mature, our next needs are for a combination of autonomy and affiliation. Moving from the “I do it” process we now begin to map out our independence from our families of origin and individuate, distinguishing ourselves as individuals in our own right. Relationships now become a matter of choice as we identify others with whom we want to belong, whether it is a group at work, or an expression of faith, or an expression of creation such as music, or physical activities such as mountain climbing, etc. These are people groups we choose to identify with as opposed to being born or placed into them.

Fulfillment Need: Intimacy

Intimacy is the ability to be honest with one or more people with no fear of rejection. It is far more than physical intimacy, although for many people that is the first concept we have. Brene Brown’s work on vulnerability provides a good frame for understanding intimacy and our need to have deep relationships where we can say anything with no fear that we will be rejected. In some ways, this represents self-actualization, for we have ‘arrived’ at what it means to be human at an individual level.

Interdependent Actualization

This last process is less of a need and more of an outcome of the fulfillment of all the other needs in a continual basis, with safety present in all it’s many aspects. We are now connected with and for each other, and are able to be a community in the best sense of that word.

These processes are always interacting with each other. When safety is not present, the interactions which help to make us human become imbalanced. Achievement and autonomy become primary drivers for many people, with relationships being tools to get what they want. Intimacy may be achieved in the perception of this person, but that is because they are always doing the rejecting, moving from one relationship to another. “Me first” is their motto and the code by which they live. It is

a life of power and prestige, with the image being more important than the reality. In many ways, Interdependent actualization runs counter to the American and perhaps even Western ethos. In the long view of history, however, interdependent actualization is the only path to being fully human.

Safety:

As a behavioural consultant, trainer, and teacher, I understand that challenging behaviours, also known as behaviours of concern, are attempts by individuals to address their unmet needs. (Pitonyak, 2004) Human beings continuously monitor their environments to determine how safe they are. The sympathetic and parasympathetic systems are always monitoring incoming stimuli for the presence of threats to our safety. (Low, 2017) These threat and safety assessments are focused on psychological and social forms of safety, not just physical. As such, safety cannot be a unique need separated from other needs; rather, it is a continuous need present in all human interactions.

The need for safety encompasses all other needs and when safety is not present, people engage in behaviours in order to procure safety for themselves and others. (Salkovskis et al 1999, Thwaites & Freeston 2005) As such, safety is represented by the double sided arrow beneath the pyramidal structure in Figure 1.

While safety is, or is not being established for the person, their first needs are for subsistence, attachment, and communication. Many readers will agree with the concepts of subsistence and attachment being primary needs that must be met first, and the addition of communication as a need may seem out of place. It will be shown later in this article that communication is necessary for all human activities, and that the evolutionary groundwork for communication was developed far earlier than originally thought, dating back approximately 25 million years (Balezau et al, 2020)

When these needs are met in conditions of safety, the child will have laid down a foundation for future growth that is absolutely essential. When safety is not present, through abuse and neglect, even though food may be offered, the developmental trajectory of the child is altered in significant ways. (Block et al, 2005)

Safety and human interactions are woven together at a neurological level. (Porges 1995, Virtcka & Vuilleumier 2012) The brains of infants are able to process somatosensory input in the amygdala and are hypersensitive to threat. (Graham et al, 2016) The presence of responsive adults in the environment mitigates the fear associated with those threats and provides infants with the ability to develop anxiety-free behavioural patterns as they mature. (Cozzolino 2014) In order to overcome the brain's innate hypersensitivity to fear, children must experience physical and emotional safety in the relationships with the adults in their lives. (Perry, 2004)

The presence or absence of safety plays a key role in both the short term and long term human behaviours. In the short term, individuals will engage in a series of behaviours to acquire safety, escape from threat, or both. The relative effectiveness or ineffectiveness of these behaviours are central in shaping the long term behavioural choices that become hardwired into our brains. Escape and acquisition are the two building blocks of all behaviour. The behaviours that are effective in minimizing stress become the preferred responses to stressors for the individual. The emotional states of the person, when they are experiencing stress, become traits when behaviours consistently minimize stress. (Perry et al, 1995)

Safety is not a separate need, it is a continuous need throughout the lifespan. For example, a child who is nurtured by its' parents, living in a stable environment and interacting with caregivers almost continuously throughout the day has a strong perception of safety. If during adolescence there is a significant family disruption in the form of death or divorce, the safety that child has experienced is now

endangered. However, when the stress of the family disruption is minimized, the individual will return to their previous state of safety and their development will continue because of the foundational safety they experienced in childhood. In working with children and adults with significant histories of trauma, when safety is threatened later in life, the individuals appear to regress to the level of unmet need while they experienced their original trauma. (Lokko & Stern, 2015) Understanding the ages at which a person experienced trauma is a critical element, necessitating the use of trauma screening tools.

People whose subsistence needs were met in unsafe environments had significantly higher risk of developing physical and/or psychological disorders. (Anda et al, 2006) People whose needs for love and belonging were met in conditions of periodic episodes of abuse often developed psychiatric disorders. (van der Kolk, 2015) People whose need for achievement, for self-esteem were met in schools and workplaces in which they were bullied are more likely to experience depression and anxiety and poorer overall emotional adjustment. (Gladstone et al, 2006) The need for safety is a lifelong need for all people, not just those affected by trauma. By moving safety out of the hierarchy and making it a continuous background need, we can build systems of interactive care to help human beings grow, develop, ask questions of others and themselves, and internalize information with judgement and conviction. (Quiros et al, 2012) The need for safety does not end at any point in human life; safety encompasses all points of reference for what it means to be human.

Biological Imperatives:

Much has changed in the field of biology since Maslow wrote his original paper in 1943. Entire fields such as molecular biology, behavioural genetics and bioinformatics did not exist when Maslow wrote his papers and books. The concept of cooperative behaviour was reserved for humans and the higher primates. Research into the social behaviour of bacteria and other microorganisms have shown that cooperative social behaviour is ingrained into life forms at the most basic cellular level. (Young 2008,

Miller et al 2018) It appears that all life forms have social behaviour as a part of their essential adaptive repertoire. Human beings have taken the biological imperative to cooperate and raised it to a higher level of possibility. It is in the basic building blocks of life that we find the urge, the need to use social behaviour in order to live.

Essential to this new level of social behaviour is the ability to communicate. Without communication, social behaviour would not only be meaningless; it would be impossible. While all life forms have rudimentary forms of communication through chemical means, evolutionary principles appear to favor larger, complex brains in order to cope with the demands of being in relationship with others, both at a pair-bonding level for procreation, and at a larger group and inter-group level as human civil societies formed. (Dunbar & Schultz, 2007)

The human brain has evolved to pursue social relationships with other brains in order to maximize the safety of the individual and the species. (Cozzolino, 2015) *“The brain is increasingly thought of as a tool specifically designed to create social relationships, to reach out for human relationships and company, literally made sick by loneliness and social isolation.”* (Meloni, 2014, p5)

From this understanding of humans as social, communicative beings, the pinnacle of human growth and development is not Self-Actualization, but rather Interdependent Actualization. The interdependence of human beings is seen in the ways in which we seek out relationships in the best of times, and in the worst of times. We celebrate and we grieve with others, under stress we often gather in groups for meetings or just for comfort. The responses to social restrictions as a result of the Coronavirus pandemic provides a real world example of the anxiety produced when the opportunities for group social interactions are restricted.

The interdependence of human beings has its' roots in our neurology. The Social Engagement System (Porges, 2001) has been hypothesized to have evolved to empower humans and other primates to

develop the social skills necessary for group as opposed to individual actions. Humans are relatively weak animals in isolation; it is only through social interaction that humans were able to overcome predators and harsh environmental conditions necessary for survival. (Alexander, 1974) It is our ability as humans to work cooperatively that empowered us to be able to adapt to almost every environment on earth. Rather than a question of human behaviour being shaped by nature or nurture, interdependence is a “both-and” and not an “either-or” appreciation of how social interactions impact human evolution over time. (Richerson & Boyd, 2005)

The concept of epigenetics reinforces this “both-and” idea. Epigenetics, broadly speaking, states that the experiences of individuals are incorporated into their genetic code throughout the lifespan. As our individual cells are replaced in our bodies, environmental experiences are encoded through what are known as methyl groups that do not change the base pair of the chromosome, but do change genetic expression by switching instructions coded within our DNA on, or off. (Kellerman 2011, Kubota et al, 2012) Thousands of generations of humans passed on and added to the relational nature of being human into our overall genetic structure. As a species as well as individuals, social behaviours are necessary for survival, and is why the focus is on different levels of relationships in the process of becoming human.

This composite view of the Matrix of Needs is designed to provide a visual model for the interactions between the various needs. Foundational needs are Subsistence, Attaching Relationships, and Communication. These needs are present at birth and the level to which these needs are met in a developmental framework provides the base from which life is experienced.

Second level needs are Achievement and Social Relationships. These needs are built upon and interact with the first level needs. Third level needs are Autonomy and Affiliative Relationships, which together provide the context in which the Fourth level need, Intimacy, is experienced.

The degree to which all these needs are, or are not met, provides the basis for Interdependent Actualisation. Each of these levels are discussed further in this paper.

Figure 2 – Core Needs

These are the first needs to be met in the first minutes and days of life, and support 2nd level needs.

Subsistence needs include respiration, food, water, shelter and sleep and elimination. Each of these areas is important in their own right, and are necessary to sustain our lives as human beings. Without these, we would die within minutes or at most months depending on the need. In addition to these needs, we need to experience life free from physical pain, as the presence of pain has a significant impact on the quality of life of human beings. (Oliviera, 2016)

Attaching Relationships in human beings begin in the womb. (Castiello et al, 2010) When human beings are born, they are genetically programmed to attach to caregivers who will meet their basic needs necessary for survival. (Cassidy & Shaver, 1999) Attaching relationships form within several minutes or, at most, hours of birth. The eye contact between the child and parent, often mother, rocking, cooing and touch all serve to organize the brain of the infant, and reinforce the organization of the parent(s) brains. (Perry 2003, Hennessy et al, 2009) These attaching relationships provide the infant and child with immediate safety at an emotional level, and also lay the foundation for psychological and emotional development. (Fraley 2002, Hong & Park 2012)

Communication is presented here as a need rather than a way of meeting needs. Human beings need to communicate in order to survive. Without the social communication that enabled early hominids to function as a group, humanity would not have survived. (Fay et al, 2010) This communication system is highly complex and unlike any other known communication system. “... *language production always occurs with the involvement of not only the vocal tract and lungs, but also the trunk, the head, the face, the eyes and, normally, the hands.*” (Levinson & Holler, 2014, p1)

The evolutionary development of more specific communication using both non-verbal and verbal tools, according to Levinson & Holler was instrumental in the development of the complex neocortex unique to humans.

These three needs – subsistence, attachment and communication – interact with each other to establish the foundation of human life. If subsistence needs are not met through severe abuse or neglect, the child dies or is at risk for developing significant disabilities as she or he develops. The Adverse Childhood Experiences study (Anda et al, 2006) and numerous subsequent articles have validated this connection. Likewise, failure to form attaching relationships results in disorders such as avoidant, resistive, and disorganized attachment and subsequent relational difficulties (Benoit, 2004)

As infants interact with others, usually a parent, grandparent, aunt or uncle or other relatives, the behaviours which meet subsistence, attachment and communication needs mold the forming brain of the infant. When a child is born, very few neural connections beyond the brain stem are in place. The behaviours the child uses to meet their needs become that child's preferred behaviours through the process of synaptogenesis, the formation of connections between neurons in the brain, or synapses.

The Harvard Center for the Developing Child estimates that 700 synapses, or connections between neurons, are formed every second in the developing brain of an infant. (Shonkoff, 2013)

Hebb's Law (Hebb, 1949) is commonly understood in the phrase "what fires together, wires together." (Perry, 2003) When we use behaviours to meet our needs, or when our behaviours do not meet our needs, there are neurological consequences that become part of the architecture of the brain. The interaction between our environments, our genetic programming, and the choices we make are part of the matrix of our lives, which we create every moment of every day because what fires together, wires together. Understanding that matrix is more than an academic exercise, it provides the framework for healing when needs are unmet.

Figure 3 – Growth Needs

Social Relationships and Achievement are the next two needs within this model. When subsistence, attachment, and communication needs are met, the individual has a strong foundation upon which to

begin meeting the next level of needs for continued growth. Subsistence needs, when met, provide the foundation for all human behaviours. Attaching relationships create the ability for the individual, a developing child at this point, to form social relationships. Communication, not necessarily verbal, gives the child the ability to engage in relationships that are at first dyadic, with one other person, and then more complex as the infant becomes a child and interacts with people in social situations outside the family structure.

The foundation of attaching relationships is key to both social relationships and achievement. It is within social relationships that the process of Attunement (Ostland et al, 2017) develops. Attunement refers to a reciprocal relationship between caregiver and child in which their interactions with each other create the foundations of behavioral regulation and/or dysregulation, depending on the emotional state of the caregiver. From mother-infant relationships to more complex relationships, attunement is crucial to the development of relational skills. Without strong relational skills, people will be more likely to engage in limited social interactions, and will see achievement as something they did, as opposed to seeing how others contributed to their achievement.

When safety is lacking while human beings are learning to use social relationships, those relationships will be difficult to develop. People will have social relationships, but they often will be experienced as manipulative. (Brewer & Abell, 2017) People with diagnoses such as Reactive Attachment Disorder, Antisocial Personality Disorder and Disinhibited Social Engagement Disorder often experienced significant levels of Adverse Childhood Experiences (ACE's) in the form of abuse and neglect during their early developmental stages. These impairments of need fulfillment in Subsistence as well as Attaching Relationships can be seen in less than robust social relationship as the child develops and matures.

The impact of interpersonal relationships on educational achievement has been well studied. (Martin & Dowson 2009, Haigh 2011). Less well studied is the impact of interpersonal relationships on achievement within home and community settings. The mastery and achievement of children (Hokoda et al, 1999) is intimately bound up in the attaching relationships with their parents. The western model of attachment being primarily a role of a mother is not at all universal and the social contexts of attachment and relationships must be broadened to include multiple social relationships supporting the child to grow, develop and succeed in their lives. (Keller, 2016)

Achievement is a need seen in children as they learn palmar and pincer grasp and are able to use these skills to perform tasks such as eating, attaining desired objects, etc. (Dosman et al, 2012) The pride of skill mastery is itself a motivating force in the continued growth of the individual (Williams & DeSteno, 2012), and continues to be important throughout the lifespan. It is when we are able to achieve and say “I did it” that we build a foundational platform upon which we can continue to grow and develop in our humanity. Achievement brings about self-esteem, and when achievement is hampered by a lack of emotional or psychological safety, self-esteem suffers as well.

Figure 4 – Maturity Needs

As we mature, our next needs are for a combination of autonomy and affiliation. Moving from the “I do it” process we now begin to map out our independence from our families of origin and individuate, distinguishing ourselves as individuals in our own right. Relationships now become a matter of choice as we identify others with whom we want to belong, whether it is a group at work, or an expression of faith, or an expression of creation such as music, or physical activities such as mountain climbing, etc. These are people groups we choose to identify with as opposed to being born or placed into them.

To be autonomous is, at minimum, self-rule that is free from both controlling interference by others and from limitations, such as inadequate understanding, that prevent meaningful choice. The autonomous individual acts freely in accordance with a self-chosen plan.” (Varelius, 2006) Autonomy is one of the drives Erikson posited, and is seen first in the young child who says “I do it!!” and then continues to develop in skill mastery.

Achievement is where the sense of autonomy is first experienced, and as the child develops and matures, she can become her own person, standing for herself. When these needs are challenged by a lack of relational safety, achievement and autonomy are pathways to acceptance and a sense of being valued, if not loved. (Nietzel & Harris, 1990) True autonomy is built on the emotionally safe experiences of achievement, social relationships, and attachment. Without the gift of autonomy, one cannot enter into affiliative relationships because they will be using those relationships to meet their own needs and thus become manipulative of others. At times this manipulation may appear to be positive and whole, but in the end, it is still manipulation.

Balancing autonomy is the development of affiliative relationships. Built upon the safe foundation of social relationships, attachment, and communication, affiliative relationships in this model are characterized by choice at both individual and group levels. Affiliative relationships are, in the best of all worlds, where autonomous people choose to relate with each other. The positive experience of attachment, social relationships, and the ability to communicate all work together to facilitate the development of affiliative relationships.

Autonomy without affiliation requires transactional relationships at best (what’s in it for me?) and manipulative relationships at worst (how can I use you to achieve my aims) in relationships that have clear power differentials, and no sense of mutuality or service.

Figure 5 – Fulfillment Needs

Intimacy is, in this model, the fulfillment of all the work done thus far in becoming human. It is supported by the balance between autonomy and affiliative relationships. To be intimate with someone is to be honest with no fear of rejection. Intimacy can include physical expressions of what is commonly called love, though intimacy includes and

transcends the physical aspects of love. Affiliation must be balanced by a sense of autonomy, for without this balance it is easy to become enmeshed in a dependency relationship which limits intimacy. (Notman et al 1986, Grossman 1987, Holmes 1996) What I am calling intimacy here Francis Heylighen called “self-actualizing love” which “is characterized as well by respect for the other's autonomy as by ego-transcending identification of the partners' needs, as well by profound concern and care for the other's well-being as by playfulness and laughter.” (Heylighen, 1992, page 44)

A number of years ago a friend of mine was hours away from death. Knowing this, his close friends and family came by the hospice to participate in the passage of life and to support his family. When I walked in, his wife was curled up next to him in bed, wiping his fevered brow with a damp cloth. It was one of the most intimate acts I have ever witnessed, and I realized then that the term “making love” is exactly that – the creation of love between two beings. This level of intimacy was made possible by of the emotional safety she felt in being surrounded by people who loved them both and provided the safety in which to experience the intimacy of life, and the intimacy of death. Without this level of safety, love

could not have been made. She also was autonomous in that she had her own career as a writer, her own identity as a woman as well as fulfilling the roles of wife, mother, and grandmother.

Intimacy is cradled by autonomy and affiliation. When we are able to stand by ourselves and stand with others, we can experience intimacy and create love, not just experience it. To be intimate with someone else is to understand them, and to be understood by them, with complete trust and without fear. This understanding of intimacy crosses cultural boundaries and is felt by people in Asian as well as Western societies. While the degree of intimacy varies between cultures, the need for intimacy appears to be transcultural. (You & Malley-Morrison, 2000)

Figure 6: Interdependent Actualization:

The term “interdependent actualization” is used to highlight both individual wellbeing and that of the people we interact with in our cultures. Wellbeing is not only an individual goal, it is also a communal goal. Interdependent actualization is what empowered humans to flourish in harsh environments, find safety from predators, and develop civilizations. Humans built

communities and civilisations using interdependence as both a starting point and a goal for humanistic life.

Interdependency, the concept that we are all in this together, provides a way of understanding human actions and interactions in a way that is consistent with the Social Engagement System (Porges, 2003) which postulates that human social behaviour in response to threats has evolved to empower humans to work in groups as opposed to addressing threats individually. Interdependency balances the needs of the self and the needs of the group. There is in western social thought an individualism or collectivism approach, which provides a false dichotomy. We are born as individuals and become human through social interactions. For “us” to be as actualized as possible, “I” must be as actualized as I can be.

Because I live in a community I am interdependently connected with those who pick up my trash, make sure my gas and electricity flows to my house, maintain the roads, deliver goods to the stores I shop at or the internet I shop on.

Maslow himself was on this path, and his final book, *The Farther Reaches of Human Nature* (Maslow, 1971) published after his death, is a collection of essays on a broad range of topics, including his vision of moving beyond self-actualization. Maslow called the concept “self-transcendence” (Koltko-Rivera, 2006) and believed that people who had self-actualised would now use their lives in service to others. In his 1965 book *Maslow on Management* he coined the term “eupsychian” referring to an interdependent culture created through the interdependent teamwork of people who had and continue to be self-actualized. interdependent social connections even in microscopic forms of life (West et al 2007)

Interdependency is seen in all life forms, from the most simple to the most complex. Single cell organisms work together in a variety of different contexts (Crespi, 2001) to forage for food, disperse across a wider area, reproduce and communicate. Certain species of spiders have developed complex social roles and identifiable personality traits. (Laskowski & Pruitt, 2014) It is not just the higher orders of mammals that practice cooperative social behaviour, it appears to be part of the structure of life on earth. (Novak, 2006)

Theory Into Practice

Edward Carr, one of the authors of the original article putting forth the idea of Positive Behaviour Support (PBS) in 1990, wrote that: *Positive behaviour support (PBS) is a great and worthy idea predicated on the notion that creating a life of quality and purpose, embedded in and made possible by a supportive environment, should be the focus of our efforts as professionals. Our chief concern is not with problem behaviour, and certainly not with problem people, but rather with problem contexts.* (Carr, 2007)

This concept is central to *Positive Behaviour Support: A Unified Approach* created by the Royal College of Psychiatrists, the British Psychological Society, and the Royal College of Speech and Language Therapists (2007). Understanding the contexts in which human growth was disrupted and developing structures for healing is central to the concept of the Neurosequential Model of Therapeutics. (Perry & Hambrick 2008, Barfield et al 2014) Behaviour always occurs in some kind of context, often in relationship with others, and always in relationship with the environment. Understanding those contexts and how to alter them, modify them, increase or decrease elements within the ecology requires not only a “here and now” approach; it also requires a social history identifying the ways in which trauma may have altered the development of the individual and how that alteration effects behavioural choices today. The effects of trauma have been well researched (Anda et al 1998; Oral et al, 2015, van der Kolk 2015). Integrating this research into The Matrix of Human Needs has provided an invaluable tool with which current behaviours can be understood in the light of past disruptions resulting in unmet needs.

While abuse and neglect have been continuously present in human history, their inclusion in the literature related to human development is relatively recent. When Maslow discussed the concept of safety, though he did not use the word “trauma” the components of traumatic interaction were identified. He wrote that: *“...Also parental outbursts of directed to the child, calling him names, speaking to him harshly, shaking him, handling him roughly or actual physical punishment sometimes elicits total panic and terror in the child that we must assume more is involved than the physical pain alone.”* (Maslow, 1943, pages 377-378)

It has been my experience that the Matrix of Human Needs provides a framework within which to better understand the needs of the individuals I am serving, and how to direct resources to provide healing and hope to children and adults whose trauma has resulted behavioural profiles called complex, challenging, and intense. Understanding how abuse and neglect derailed the normative developmental framework also provides a guide for those interventions necessary for healing and wholeness to be experienced by the individual. Identifying the points in this matrix in which traumas and insults caused harm also provides the paths through which neural plasticity and emotional resilience can be harnessed and wellness can be achieved.

Case Study 1: Frank L is a 22 year old Caucasian male who lived with his father and mother in a rural part of an Australian state. Frank's diagnostic profile included cerebral palsy, intellectual disability, and an unspecified language disorder. Frank communicated with gestures, a few signs from Australian Sign Language, and attempts at verbalisation. An augmentative communication system using an iPad was developed, but Frank deleted all apps and files associated with the program. At the time of referral Frank was in a psychiatric hospital, having aggressed towards peers and staff in a small (3 person) congregate setting in an Australian city. In a two month period Frank had aggressed over 20 times towards peers, 31 times towards staff, and had several attempts to aggress towards children in the community. A social history revealed that Frank's parents struggled with their own mental health issues, as well as substance abuse. The family was periodically homeless, and Frank was physically and verbally abused beginning at age 3 by relatives and friends who were also substance abusers. Frank was given a psychological examination at age 14, though the testing procedure relied on verbal communication. He was given an IQ range from Severe to Moderate.

Using the Matrix of Needs, the focus of his behavioural plan was on developing attaching relationships and communication. The state had intervened and removed Frank from his natural home, with no contact allowed between his family members and Frank. Frank had learned to use threats and, if that failed, aggression to get what he wanted from his environment. This instrumental aggression was seen in hospitals, his residence, and a one month assessment at a day activity program.

A 2:1 staffing ratio was established, with a focus on building community outings, building a communication dictionary of his gestures and signs. A token economy was established for Frank, reinforcing Frank for prosocial behaviours. The use of aversive consequences was ruled out as this would continue, from Frank's perspective, the use of aggression to achieve goals.

Within 45 days his aggressive behaviours were at zero, and communication had become functional and fluid. He established friendships with staff first, and secondarily with another resident who used sign language to communicate. Efforts to re-engage the family began thereafter in 30 days, along with vocational exploration. Building a sense of achievement, along with already developing social relationships will form the foundation for affiliative relationships. It is projected that within 6 months it is that formal behavioural supports can be scaled back in favour of rehabilitative interactions led by the residential and vocational staff.

In addition to using the Matrix of Human Needs in complex behaviour supports, it can be used on college and university campuses with students who are struggling to redefine their identities in a new context. Autonomy and affiliation needs are front and center in their lives as is new challenges to achievement and for many an entirely new framework for social relationships in residence hall living. Any previous disruptions in Attachment, Achievement or Social Relationships will make themselves evident as the student struggles with autonomous responsibilities for getting to classes, retreats from

opportunities for affiliative relationships and compensates with increases in self-medicating behaviours such as the use of drugs and alcohol.

Implications for Future Research:

This article is meant to continue the examination of the interactivity of human needs, especially in light of the abuse and neglect experienced by at least one third of children, according to the Adverse Childhood Experience study (Anda et al, 2006 *ibid*) While this article has focused on the human service system, with an emphasis on developmental disability and mental health services, explorations in organizational management, forensic services, and educational programs are an example of ways in which the Matrix of Needs may be expanded.

Of particular interest to me is the Chinese model of therapy known as Zhi Mian. Like many Chinese words, there is no easy, singular translation and it has been described as meaning “facing directly” meaning that rather than escape from the traumatic events that might drive us to escape, or attack, we instead directly face the existential threats to our very existence Both a form of therapy and a way of living, Zhi Mian, in my understanding, can be discussed in a dyadic therapeutic relationship, but it can only be lived out in and with a group of other, likeminded people who are interdependently actualizing. I am actually quite excited about the ways Zhi Mian can expand, deepen, and strengthen our understanding of what it means to be human.

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