

Disc focused Bio-Psycho-Social model per Gonstead clinical practice

Christopher J Meyer

Abstract: This short paper provides a scale of matter from subatomic through to the biosphere of the solar system and up to galactic and universal levels.

The intervertebral disc in humans is placed at the centre of this scale and comment is given on how the Chiropractic adjustment, specifically in the Gonstead paradigm, may influence the functioning of the disc, the individual person, and their family and community.

This perspective allows us to appreciate how a Chiropractic Adjustment, made with intent, may have broader outcomes than simple within-person health changes. Patients have the most control at their individual level through their daily choices, but as Chiropractors, our influence has three separate areas of effect with varying degrees of influence as I describe.

This view represents the contemporary Bio-Psycho-Social Model of health and illness, which has been developed as a more holistic perspective in understanding human health and illness in a fuller context.

Indexing Terms: Chiropractic; intervertebral disc degeneration; biopsychosocial model; health; well-being.

Introduction

The bio-psycho-social model of health expands the understanding of health beyond the purely biological/biomechanical, considering how psychological and social factors also contribute to a person's well-being. When we think about health and human existence from a subatomic to universal scale, like the 'Powers of Ten' video, the degree of influence an individual has over each level decreases as the scope moves outward (universal) or inward (subatomic).

This paper is an attempt to consolidate and integrate this perspective from a Chiropractic clinical practice point of view.

Here's how this hierarchy might look, from smallest to largest, with an emphasis on the changing degree of influence possible at each level:

#1: Subatomic Level (10^{-15} to 10^{-10} metres)

Components: Quarks, electrons, protons, neutrons, and other subatomic particles.

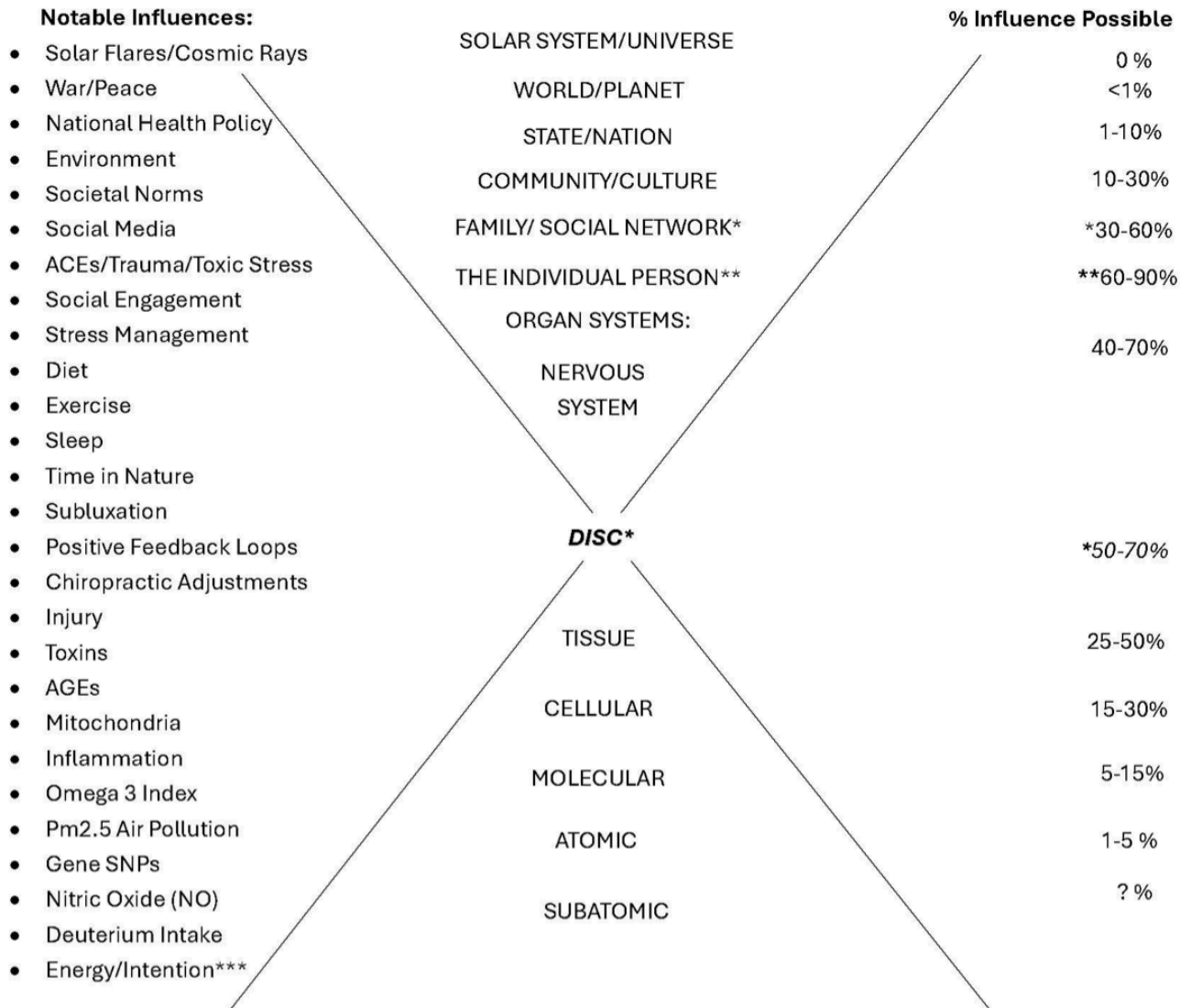
Influence: 0%. (1) Minimal to none.

... This is a model that attempts to give a larger perspective on a complex and, as of today, still poorly understood system of systems that we and our patients exist within ...'



At this level, quantum mechanics dominates, and human control is negligible. External forces such as radiation and cosmic influences impact subatomic particles, but individuals cannot directly influence this level consciously. (1)

Figure 1: The hierarchy with possible influences



The further from the individual toward the micro or macro scale, the less influence possible.

*Our influence as Gonstead chiropractors is at the disc, person and social/community levels.

**The patient has their own locus of control that is separate from ours, but we can affect it.

1. Of further note one may consider possible unknown areas of influence such as prayer, intention or various 'energy' modalities as possible factors, but they are beyond the scope of this model and are largely speculative at the present time.

#2: Atomic and Molecular Level (10^{-10} to 10^{-9} metres)

Components: Atoms, molecules (DNA, proteins, hormones).

Influence: 5-15%. Limited.

While we can impact this level indirectly through nutrition, medications, or toxins that affect biochemical processes, direct control is minimal. Cellular repair mechanisms and molecular interactions operate largely outside conscious control, though they respond to the environment we create for them (e.g., healthy vs. toxic lifestyle). Deuterium levels and Nitric Oxide are possible factors we have covered in past MOM seminars.

#3: Cellular Level (10^{-6} metres)

Components: Cells, organelles, mitochondria, DNA expression.

Influence: 15-30%. Moderate.

Individuals can influence cellular function through lifestyle choices, such as diet, exercise, sleep, and managing stress, which affects cellular processes like inflammation, repair, and apoptosis. Epigenetic factors are significant here. The role of ACEs also has a large influence.

#4: Tissue and Organ Level (10^{-3} metres)

Components: Tissues (disc, muscle, nervous, connective), organs (heart, liver, brain).

Influence: 25-30%. Moderate to High.

Regular exercise, nutrition, hydration, and mental health practices can directly influence the health and function of tissues and organs. However, some genetic predispositions and environmental exposures still play a role beyond direct control. The Disc lies between this and the next level and is where our greatest influence occurs. We excel here, but when the disc doesn't respond to care, we need to expand our perspective outward, with this model to see what other factors may be impeding progress.

#5: Organ System Level (10^0 metres)

Components: Systems (nervous, cardiovascular, immune, endocrine, musculoskeletal).

Influence: 40-70% High.

Conscious behaviours like movement, stress management, dietary habits, healthcare interventions and Chiropractic Adjustments have a significant impact on organ systems. Individuals have strong control over these aspects of their health, although chronic disease and aging can limit influence.

#6: Whole Person Level (10^1 metres)

Components: The entire individual, including biological, psychological, and social aspects.

Influence: 60-90%. Very High.

This is the level where personal responsibility for health is most evident. Choices related to lifestyle, mental health, social connections, and health care are key. The individual can affect health holistically through self-care, relationships, and behaviour modification.

#7: Family and Social Network Level (10^2 metres)

Components: Immediate family, close friends, social connections.

Influence: 30-60%. High to Moderate.

Individuals have significant influence over their immediate social environment through communication, shared activities, and mutual support. However, social and familial dynamics can also impose stress or health challenges, sometimes beyond one's full control.

#8: Community and Cultural Level (10^3 to 10^4 metres)

Components: Local communities, societal norms, cultural beliefs.

Influence: 10-30%. Moderate.

Individuals can engage with and influence their communities through participation in social groups, local governance, and activism. However, cultural and societal norms shape behaviours and health outcomes to a degree that can be challenging to change single-handedly.

#9: National and Global Level (10^5 to 10^6 metres)

Components: Nations, global health policies, economies, environmental conditions.

Influence: 1-10%. Low to Minimal.

While individuals can advocate for change, participate in public health initiatives, or influence government policies, the large scale of national and global forces (eg healthcare systems, economic policies, environmental changes) limits individual control.

#10: Planetary Level (10^7 metres)

Components: Earth's ecosystems, biosphere, climate systems.

Influence: $<0.000001\%$. Minimal.

While collective human behaviour impacts the environment (e.g., pollution, climate change), an individual's direct influence over planetary health is limited. However, actions like altering one's consumption patterns can have small-scale impacts.

#11: Solar System Level (10^8 to 10^9 metres)

Components: 0%. The sun, planets, and their interactions.

Influence: None.

Cosmic events like solar flares, planetary orbits, and gravitational forces are far beyond human influence.

#12: Galactic and Universal Level (10^{10} to 10^{26} metres)

Components: Stars, galaxies, dark matter, the universe.

Influence: 0%. None.

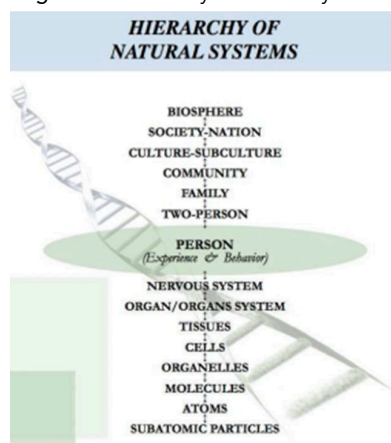
The universe operates on cosmic scales that humans can only observe, with no influence on events such as galaxy formation or the expansion of the universe.

Discussion

This broad multi-system view of the 'terrain' or space that we inhabit as healers is based on a variety of different sources and materials from my Master's degree studies at *Thomas Jefferson University* from 2020-2024.

My inspiration is the Bio-Psycho-Social Model of health and illness, which was developed as a more holistic perspective in understanding human health and illness in a fuller context. It was developed by Drs G Engel and J Romano at the *University of Rochester* between 1977 and 1980, which coincided with the release of the 'Powers of Ten' video, also in 1977.

Figure2: A hierarchy of natural systems



In this new Chiropractic-oriented model that I propose, as one moves away from the centre of the diagram (Fig. 2), the doctor's and patient's degrees of influence shift and change and eventually diminish, but in a complex way. At the individual level, patients have the most control through their daily choices, but as they move out to larger and smaller scales, the power of their own influence fades rapidly. But as doctors, our influence has three separate areas of effect with varying degrees of influence.

In our chiropractic practices we have three separate and distinct areas of influence that expand the individual patient's scope of control over their health and life.

- First is at the level of the disc where we as Gonstead doctors focus our attention. This has effects in both directions, allowing positive constructive influence toward the cellular and sub cellular range as well as upward via the nervous system to influence the nervous system and other organ systems in a positive way. Both structure and function (In both directions) are altered via the subluxated segment (disc) being adjusted and the proximal tissues returned to a higher functional state, which affect the nervous system with complex expanding effects.
- Second is at the level of the individual person, with our ability to educate them in the actions that they can take to improve their health habits and outcomes. We can help to increase their internal focus of control by helping them realise their abilities to adopt actions and mindsets that will support their health and to reduce those that harm their health, but also that they have the power to heal within them. We reinforce this perspective when we as chiropractors describe how we support and assist their healing power by removing the subluxation that has been inhibiting that capacity that is innately theirs. Also, our unique ability as doctors to take away fear should not to be taken lightly.
- Third is the level of social interaction and engagement. As part of the individual's greater community or 'Team' we offer them a greater psychophysiological sense of control and agency in a complex threatening world. The degree of trust, safety, personal agency and community that an individual has access to are often overlooked. Yet they can offer powerful support when present or exact a significant toll when lacking.

The works of Nadine Burke Harris as found in her book *'The Deepest Well'* as in addition to those of Steven Porges (*Polyvagal Theory*) expand on this topic. The book *'Life Without Fear'* by Fred Barge is also a good resource on the role of fear and mindset in healing. This is a model that attempts to give a larger perspective on a complex and, as of today, still poorly understood system of systems that we and our patients exist within.

Conclusion

The percentages I give are my best guess at this time and were reached with the help of Chat GPT in conjunction with my academic resources and clinical experience. If you as a reader have any input or suggestions on how to make this model more accurate considering your clinical practice experience, please contact me.

I hope this model is helpful.

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About

Dr Meyer has practiced for 26 years in Green Bay, Wisconsin. He is a summa cum laude graduate of UW-Green Bay, A former Troxell Intern Program member and head intern (1996-98), a 1998 graduate of Palmer College, Iowa, Member of the Gonstead Clinical Studies Society (GCSS) (1999), Gonstead Diplomate (2017), Member of the Advanced Gonstead Research Society (AGRS) (2020), Gonstead Fellow (2024). He has presented at Gonstead Meeting of the Minds (MOM) several times.

He attained his master's degree in Integrative Health Sciences from Thomas Jefferson University, Philadelphia PA in May of 2024. He holds Advance Practice Certificates in: Mind Body Medicine (2021), Integrative Health Education and Leadership (2022) and Integrative Nutrition (2023) and was the 3rd graduate of the program.

Has been a Licensed Nutritional Counsellor (WI) since 2008 and has much clinical experience with Standard Process Supplements. Held a Level 3 certification in Neuro-Emotional Technique (NET) since 2013, as well as advanced training in NET from Thomas Jefferson University.

Husband to Abby and proud father to son James (3) and Annie (10 months). Dr. Meyer is continually working to put what he has learned into clinical practice in a way that advances the work of Dr. Gonstead and he welcomes your constructive feedback.

This paper was presented by Dr Meyer at the October 2024 College of Fellows Annual Conference during the Gonstead Meeting of the Minds-XXI at Palmer College of Chiropractic in Davenport, IA at which time he was accepted into the College of Fellows. Congratulations Dr Meyer, Gonstead Fellow.

