

# Purposeful Live Coaching

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## Research & Evidence Foundation

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### Our Commitment to Evidence-Based Coaching

At Purposeful Live Coaching, we believe that effective coaching must be grounded in science, not speculation. Our AI-assisted coaching platform integrates decades of peer-reviewed research in behavioral science, emotion recognition, and holistic wellness to provide you with the most effective support possible.

This document outlines the scientific foundations of our methodology.

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## 1. Paul Ekman's Facial Action Coding System (FACS)

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### The Research

Dr. Paul Ekman is a pioneer in the study of emotions and their relation to facial expressions. His groundbreaking research, conducted across diverse cultures worldwide, established that certain emotional expressions are universal to all humans.

### Key Findings

- **Seven Universal Emotions:** Anger, contempt, disgust, enjoyment, fear, sadness, and surprise are expressed and recognized universally across all cultures.
- **Micro-Expressions:** Brief, involuntary facial expressions lasting  $\frac{1}{25}$  to  $\frac{1}{5}$  of a second reveal concealed emotions that people may be trying to hide.
- **Emotional Congruence:** When facial expressions don't match verbal content, it indicates internal conflict or concealment.

## How We Apply This

Our AI analyzes video feeds during coaching sessions to:

- Detect the seven universal emotions in real-time
- Identify micro-expressions that reveal hidden feelings
- Track emotional patterns throughout sessions
- Alert coaches when emotional incongruence is detected

## Selected Publications

- Ekman, P. (1971). "Universal Facial Expressions of Emotion." California Mental Health Research Digest.
  - Ekman, P., & Friesen, W. V. (1971). "Constants Across Cultures in the Face and Emotion." Journal of Personality and Social Psychology.
  - Ekman, P. (2003). "Emotions Revealed." Times Books.
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## 2. Chase Hughes Behavioral Analysis

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### The Research

Chase Hughes is a leading military and intelligence behavior expert with over 20 years of experience developing advanced behavioral analysis systems. His Six-Minute X-Ray methodology has been taught to Navy SEALs, intelligence agencies, and law enforcement worldwide.

### Key Frameworks

**Six Social Needs** (Everyone has two primary needs):

1. Need to feel important → Fear of dismissal
2. Need for approval → Fear of rejection
3. Need for acceptance → Fear of criticism
4. Need to be perceived as intelligent → Fear of appearing foolish

5. Need to be pitied → Fear of being ignored
6. Need to be perceived as powerful → Fear of disrespect

### **HABIT Framework:**

- Heart Rate indicators
- Adaptors (self-soothing behaviors)
- Barriers (protective behaviors)
- Illustrators (gesture patterns)
- Timing (response delays)

### **How We Apply This**

Our AI identifies:

- Primary social needs driving client behavior
- Decision-making patterns and motivations
- Resistance patterns and underlying fears
- Optimal influence and rapport strategies

### **Selected Publications**

- Hughes, C. (2020). "Six-Minute X-Ray: Rapid Behavior Profiling Techniques."
  - Hughes, C. (2017). "The Ellipsis Manual: Analysis and Engineering of Human Behavior."
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## **3. Voice Stress Analysis**

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### **The Research**

Voice stress analysis examines vocal characteristics to detect emotional states and stress indicators. Modern AI has significantly improved the accuracy of these techniques, making them valuable tools for understanding emotional states beyond visual cues.

## Key Indicators

- **Vocal Tone:** Changes in tone indicate emotional shifts
- **Speech Pace:** Rapid speech often indicates anxiety; slow speech may indicate depression or careful thought
- **Pitch Variations:** Stress causes measurable changes in vocal pitch
- **Micro-Tremors:** Subtle voice tremors indicate stress or deception

## How We Apply This

Our AI analyzes audio streams to:

- Detect stress indicators in voice
- Track emotional state changes through vocal patterns
- Provide additional insight beyond visual observation
- Correlate voice analysis with facial expression data

## Selected Publications

- Juslin, P. N., & Laukka, P. (2003). "Communication of Emotions in Vocal Expression and Music Performance." *Psychological Bulletin*.
  - Scherer, K. R. (2003). "Vocal Communication of Emotion." *Speech Communication*.
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## 4. Neuro-Linguistic Programming (NLP)

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### The Research

Developed by Richard Bandler and John Grinder in the 1970s, NLP is a set of communication and personal development techniques based on modeling successful therapists. While some aspects remain debated, core NLP techniques have been validated in therapeutic and coaching contexts.

## Key Techniques

- **Rapport Building:** Mirroring and matching to establish connection
- **Reframing:** Changing the context or meaning of experiences
- **Anchoring:** Associating specific states with triggers
- **Future Pacing:** Mentally rehearsing desired outcomes

## How We Apply This

Our coaching methodology incorporates:

- Rapport-building techniques in conversation
- Reframing strategies for limiting beliefs
- Anchoring positive emotional states
- Future pacing for goal visualization

## Selected Publications

- Bandler, R., & Grinder, J. (1975). "The Structure of Magic." Science and Behavior Books.
  - Tosey, P., & Mathison, J. (2009). "Neuro-Linguistic Programming: A Critical Appreciation for Managers and Developers." Palgrave Macmillan.
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## 5. Holistic Wellness Framework

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### The Research

The World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease." Our holistic framework expands on this to include spiritual and emotional dimensions.

### Five Dimensions of Wellness

1. **Spiritual:** Purpose, meaning, values, connection to something larger

2. **Mental:** Cognitive function, thought patterns, beliefs
3. **Emotional:** Feeling states, emotional regulation, expression
4. **Physical:** Body health, energy, movement, nutrition
5. **Social:** Relationships, community, belonging

## How We Apply This

Our assessment and coaching addresses all five dimensions:

- Comprehensive wellness assessment
- Personalized intervention strategies
- Progress tracking across all dimensions
- Recognition that dimensions are interconnected

## Selected Publications

- Engel, G. L. (1977). "The Need for a New Medical Model: A Challenge for Biomedicine." *Science*.
  - Roscoe, L. J. (2009). "Wellness: A Review of Theory and Measurement." *Journal of Counseling & Development*.
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## Our AI Technology

### How It Works

Our AI coaching assistant integrates all of these research frameworks into a real-time analysis system that supports human coaches during live sessions.

#### Capabilities:

- Frame-by-frame facial expression analysis
- Real-time emotion detection
- Behavioral pattern recognition
- Voice stress analysis

- Coaching prompt generation
- Progress tracking over time
- Crisis detection and alerts

## Ethical Principles

- **Transparency:** Clients are informed about AI observation
  - **Privacy:** All data is encrypted and protected
  - **Human Authority:** AI provides prompts; coaches make decisions
  - **Consent:** Explicit consent required for AI analysis
  - **No Diagnosis:** AI provides insights, not clinical diagnoses
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## Conclusion

At Purposeful Live Coaching, we're committed to providing you with coaching that works. By grounding our methods in validated research and enhancing them with AI technology, we offer a unique combination of scientific rigor and personalized support.

Our approach isn't about quick fixes or empty promises. It's about understanding the real science of human behavior and emotion, and using that knowledge to help you achieve lasting transformation.

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### For more information:

- Website: [purposefullivecoaching.com](http://purposefullivecoaching.com)
- Email: [carl@purposefullivecoaching.com](mailto:carl@purposefullivecoaching.com)

### References and Further Reading:

- Paul Ekman Group: [paulekman.com](http://paulekman.com)
  - Chase Hughes: [chasehughes.com](http://chasehughes.com)
  - World Health Organization: [who.int](http://who.int)
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