



Mindfulness-Based Strategic Awareness Training - MBSAT:

**Mindfulness Training for Today's World of VUCA
(Volatility, Uncertainty, Complexity, and Ambiguity), 2024**

White Paper

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Introduction

In a world increasingly defined by volatility, uncertainty, complexity, and ambiguity (VUCA), traditional approaches to mindfulness training have often fallen short in addressing the nuanced needs of contemporary professionals and individuals. The original Mindfulness-Based Strategic Awareness Training (MBSAT) protocol¹, established to cultivate mindfulness within the workplace, has evolved in response to these demands. Building upon its foundation, the revised MBSAT protocol² incorporates cutting-edge insights from computational neuroscience and the pioneering work of Karl Friston on free energy minimization and active inference.

1. Background

Since its inception, MBSAT has been at the forefront of integrating mindfulness with strategic decision-making to help individuals navigate the complexities of modern work environments. Furthermore, recent developments in neuroscience have shed light on the mechanisms by which mindfulness practices can effect change at a neurological level. Central to this advanced understanding is Karl Friston's Free Energy Principle, which suggests that the brain strives to minimize the variance between its predictions and the actual sensory inputs it receives. This principle deepens our understanding of how the brain interacts with its environment and aligns seamlessly with the mindfulness practices aimed at enhancing awareness and responsiveness to present circumstances.

Integrating these concepts into MBSAT has led to a refined protocol that helps individuals manage adversity and uncertainty and optimizes cognitive and emotional processing through the lens of active inference. This approach encourages individuals to continuously update their internal models of the world, thus improving their capacity to make decisions that align with their personal and professional values.

2. Objective

This revised white paper outlines the theoretical enhancements to the MBSAT protocol, providing a comprehensive framework incorporating the latest advancements in computational neuroscience. It seeks to articulate how these scientific insights bolster the efficacy of MBSAT, offering a robust strategy for developing strategic awareness and decision-making capabilities crucial for thriving in today's dynamic world.

¹ MBSAT, A Complete Program for Leaders and Individuals (Wiley Blackwell 2017)

² MBSAT, Comprehensive Workbook (Wiley Blackwell 2023)

3. Core Concepts of MBSAT

Strategic Awareness

Initially, strategic awareness in MBSAT emphasized the capacity to navigate complex work environments with mindfulness and foresight. In the context of computational neuroscience and Karl Friston's theories, strategic awareness is redefined as the brain's ability to minimize free energy — essentially reducing uncertainty through better predictions about the world. This redefined concept integrates the ability to maintain a state of least surprise through constant updating of one's internal model of the world. This process of active inference allows individuals to make decisions that are more aligned with their expected outcomes, enhancing strategic planning and responsiveness.

Minding as Active Inference

Mindfulness in the traditional sense involves paying attention to the present moment without judgment. In MBSAT, we introduce a new practical concept, Minding, which includes the idea of active inference from the lens of computational neuroscience. Minding is a dynamic process of updating one's beliefs about the world, leading to minimization of free energy. This perspective shifts mindfulness from a passive receipt of sensory information to Minding as an active engagement with one's environment, continuously adapting one's internal model to make more accurate predictions and better anticipate and thus navigate the complexities of life and work in more effective manner.

Free Energy Minimization

The free energy minimization principle is at the heart of the revised MBSAT protocol. This principle posits that all living beings are driven to reduce the gap between their expected and actual sensory inputs. In practical terms, MBSAT trains individuals to refine their predictive models of the world, thus enabling them to reduce psychological distress and improve cognitive efficiency. By applying minding practices, participants learn to regulate their mental states and responses in alignment with their goals and the demands of their environment.

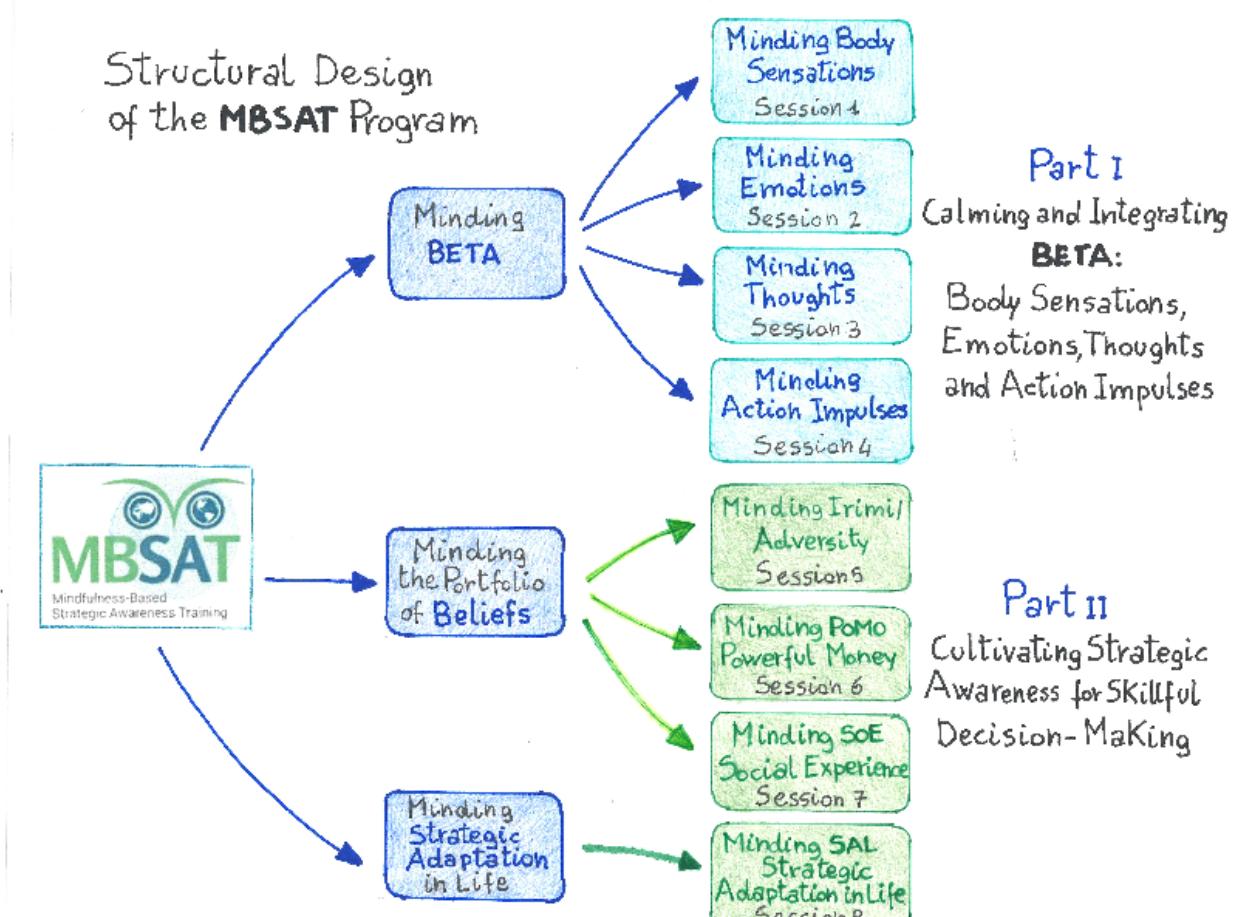
Decision-Making and Mental Well-being

Integrating Friston's ideas, decision-making within MBSAT is viewed as an outcome of the brain's optimization process, where choices are made to keep free energy as low as possible. This links directly to mental well-being, as more accurate predictions and responses lead to fewer negative surprises and more effective management of life's uncertainties. The training emphasizes developing a keen sensitivity to the feedback from one's actions and environment, fostering a cycle of continuous learning and adaptation.

4. Design and Format of the MBSAT Protocol

The MBSAT protocol is structured to incorporate the principles of computational neuroscience and active inference, enhancing its effectiveness in fostering strategic awareness and decision-making in the workplace and in life in general by presenting practices and exercises that can be integrated in daily life. The format is organized into a series of sessions, each designed to progressively build upon the last, facilitating a deepening understanding and application of the core concepts.

5. Overview of MBSAT Sessions



Structural Design of the MBSAT Program
MBSAT Comprehensive Workbook p. 127 (Wiley Blackwell 2023)

Part I: Minding BETA — Refining Recognition Models

1. **Session 1: Minding BETA I - Body Sensations** Participants learn to tune into their body sensations, recognizing these as the foundational layer of their experiential reality. The session emphasizes developing an acute awareness of physical cues and understanding how these sensations can inform and influence decision-making processes.
2. **Session 2: Minding BETA II - Emotions** This session focuses on emotions, guiding participants to identify and label their emotional states. By recognizing and understanding emotions, participants learn to manage their impacts on cognition and behavior, reducing reactionary tendencies and enhancing emotional intelligence.
3. **Session 3: Minding BETA III - Thoughts** Participants explore the nature of thoughts, distinguishing between helpful and unhelpful thought patterns. Techniques are introduced to cultivate more constructive thinking, aligning thoughts with reality and personal goals.
4. **Session 4: Minding BETA IV - Action Impulses** This session delves into understanding action impulses, emphasizing the importance of mindful response over reactive behavior. Participants practice pausing before acting, allowing space for strategic decision-making that aligns actions with long-term objectives.

Part II: Minding the Portfolio of Beliefs — Renewing Generative Models

5. **Session 5: Minding the Portfolio of Beliefs I - Adversity: IRIMI** Session 5 focuses on confronting adversity head-on. 'IRIMI,' a concept borrowed from martial arts, teaches participants to engage directly with difficult situations to learn and adapt rather than avoid challenges, thereby updating their beliefs about handling adversity and increasing their skills in coping with difficulties.
6. **Session 6: Minding the Portfolio of Beliefs II - Beliefs about Money and Power** This session addresses beliefs surrounding money and power, encouraging participants to explore and redefine their understanding of these important forces in life. By revising their beliefs, they can better align their actions with a mindful and ethical approach to financial and power dynamics.
7. **Session 7: Minding the Portfolio of Beliefs III - Minding Our Social Experience: Friendliness** Focusing on social interactions and cultivating friendliness, this session helps participants develop more empathetic and positive engagements with others. It emphasizes the role of compassionate social interactions in reducing conflict and enhancing collaborative outcomes.
8. **Session 8: Minding the Strategic Adaptation in Life (SAL)** The final session integrates all learned concepts, focusing on strategic adaptation to life's changes and challenges.

Participants review and plan how to apply their refined recognition models and updated beliefs to navigate life strategically and mindfully for more well-being and life satisfaction.

6. Format Adaptations of the MBSAT Protocol

The MBSAT protocol offers versatile delivery modes to cater to diverse participant needs, enhancing accessibility and convenience without compromising the integrity and effectiveness of the training.

Multiple Delivery Modes

- **Weekly In-Person Sessions:** This traditional format consists of eight weekly face-to-face sessions, each lasting approximately 120-150 minutes. This mode fosters a sense of community and allows for real-time interaction and feedback, which benefits group dynamics and personal engagement.
- **Flexible Online Sessions:** Acknowledging the challenges of modern schedules and the global reach of participants, MBSAT is also offered online. This format provides the same content as the in-person sessions but is delivered through a digital platform where participants can access and complete sessions at their own pace. This self-paced format is designed for flexible learning and practicing, allowing participants to progress through the program according to their individual time constraints and training preferences.

Adaptations for Online Delivery

- **Asynchronous Learning Components:** Online sessions include a mix of pre-recorded videos, readings, and exercises that participants can engage with on their own schedule. Each component is crafted to mimic the interaction and depth of in-person sessions, ensuring that participants comprehensively understand each topic.
- **Interactive Elements:** To maintain engagement and personal connection, the online format incorporates interactive elements such as live webinars, discussion forums, and scheduled virtual group discussions. These are designed to provide real-time feedback and foster community among participants.
- **Personalized Access and Scheduling:** Participants can schedule sessions and access course materials at times that best fit their personal and professional lives. This flexibility ensures that all participants, regardless of their geographical location or time zone, can fully engage with the MBSAT program.
- **Continuous Support:** Ongoing resources and instructor access support are available in person and online. This support is provided through email, virtual office hours, and

supplementary materials that help participants deepen their practice and apply the MBSAT principles.

7. Highlight New Research and Findings

Recent Study on MBSAT Effectiveness

In a recent control group study designed and realized by Professor Jochen Reeb, myself, Eva Peters, and Monika Young, the revised MBSAT protocol was rigorously tested to assess its effectiveness in enhancing strategic awareness and decision-making in professional and private settings. The study included participants from various professional backgrounds, divided into experimental and control groups to test the protocol's impact comprehensively.

Preliminary Results

The preliminary findings from the study are highly promising and indicate significant improvements in several key areas:

- **Enhanced Strategic Awareness:** Participants in the MBSAT group demonstrated a marked increase in strategic awareness, as measured by their ability to anticipate and adapt to complex situations with greater ease and effectiveness.
- **Improved Decision-Making:** The study revealed that MBSAT participants were better able to engage in active inference, leading to more informed and effective decision-making processes. This was particularly evident in scenarios involving uncertainty and rapid change.
- **Reduction in Cognitive Stress:** Participants reported a significant decrease in stress levels attributed to improved cognitive alignment with their environments through the active updating of their mental models, as advocated by the MBSAT protocol.
- **Increased Well-being and Professional Satisfaction:** The feedback also highlighted increased overall well-being and professional satisfaction, supporting the protocol's focus on integrating mindfulness with strategic life skills.

Methodology

The study employed various quantitative and qualitative research methods to ensure comprehensive data collection and analysis. Self-reported questionnaires were used to gather data before and after the intervention.

Implications of the Findings

These preliminary results validate the effectiveness of the revised MBSAT protocol and underscore its potential as a transformative tool for professionals navigating the complexities of modern work environments. The study's findings suggest that integrating principles of computational neuroscience and active inference into mindfulness training create a Minding state that can significantly enhance cognitive, emotional and behavioral resilience.

8. Conclusions and Future Directions

Summary of Enhancements

The revised Mindfulness-Based Strategic Awareness Training (MBSAT) protocol represents a significant evolution in applying minding/mindfulness within professional settings. By integrating cutting-edge computational neuroscience and Karl Friston's theories of free energy minimization and active inference, MBSAT has been enhanced to provide a more robust framework for cultivating strategic awareness and decision-making skills. The modifications made to the protocol deepen the theoretical underpinnings and improve the practical applications of minding/mindfulness in navigating complex and uncertain environments.

Impact of Recent Research

The recent control group study led by Professor J. Reb, in collaboration with myself, E. Peters, and M. Young, provides compelling empirical support for the efficacy of the revised protocol. The preliminary results indicate significant benefits in strategic awareness, decision-making accuracy, stress reduction, and overall well-being, validating the protocol's effectiveness and potential to transform professional practices.

Future Directions

The MBSAT protocol is poised for further development and broader application. Future research will focus on:

- **Longitudinal Studies:** Conducting long-term studies to assess the enduring impacts of MBSAT on participants' professional and personal lives.
- **Diverse Populations:** Expanding the participant base to include diverse demographics to explore the universal and unique impacts of the training across different cultures and professional contexts.

- **Technological Integration:** Leveraging technology to enhance the delivery of MBSAT, such as using AI-driven analytics for personalized mindfulness interventions.
- **Collaborations:** Establishing more collaborative research initiatives to explore interdisciplinary applications, particularly in integrating mindfulness with other cognitive and behavioral training methodologies.

9. Call to Action

We invite mindfulness practitioners, cognitive scientists, and professionals from all sectors to engage with the MBSAT protocol, participate in our ongoing research, and contribute to the evolving conversation around mindfulness and strategic awareness. Together, we can continue to refine and expand this innovative approach to meet the challenges of today's dynamic world.