Paying attention to emotions pays off:

Emotion regulation training improves financial decision-making

Mark van Overveld
Rotterdam School of Management,
Erasmus University Rotterdam

Pranjal Mehta
Ale Smidts
Bernd Figner
Jeffrey Lins

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THANK YOU!

- Alexandra Kovacheva
- Mark Fenton O’Creevy
- Gareth Davies
- Paul Grayson
- Daniel Richards
- Alexandra Madden / Timetotrade
Outline

• Background

• Research questions

• Study 1:

• Study 2

• Study 3

• Conclusions
Mindfulness

Promising intervention to learn to manage emotions, stress and attention

What is mindfulness?
- Techniques aimed at reducing stress and arousal
- Focus on emotions
- Learning to be more aware of emotions
- Acceptance

Mindfulness (MF) means:

Paying attention in a particular way; On purpose, in the present moment, and Nonjudgmentally (Kabat-Zinn)

Evidence in health psychology
Mindfulness

Evidence in neuropsychology:

- Meditation association with widespread activity in prefrontal cortex (Creswell et al., 2007)
- Increased activity in dorsolateral brain areas (Modinos et al., 2010)
- Increased activity orbito-frontal and hippocampal regions (Farb et al, 2010; Hölzel et al., 2007)

In sum:
Mindfulness associated with changes in areas relating to emotion regulation, response control and deliberate decision-making.
Mindfulness in trading?

MF seems very relevant for traders

✓ Increase attention
✓ Reduce stress
✓ Managing emotions (such as fear and anger)
✓ Learning to accept emotions instead of acting on them
✓ Awareness of emotions allows for adequate emotion regulation

Yet, never been applied within financial contexts

✓ Requires open-minded individuals: are traders open-minded enough for mindfulness-techniques?
Research questions

1. Can short mindfulness exercises successfully improve financial decision-making? *(study 1 & 2)*

2. Can short mindfulness exercises successfully improve financial decision-making in traders? *(study 3)*
Can a short mindfulness exercise influence financial decision-making?

✓ 50 business students (44% females, Mean Age: 19.5)
✓ MF group (breathing and meditation)
✓ Control group (Lord of the Rings)

✓ Dependent variables:
  ✓ Trait Mindfulness (Kentucky Inventory Mindfulness Skill; Baer et al., 2004)
  ✓ State Mindfulness (Toronto Mindfulness Scale; Lau et al., 2006)
  ✓ Emotion regulation (Emotion Regulation Questionnaire; Gross et al. 2003)
  ✓ Performance on Columbia Card Task (Figner et al., 2008)
Now, bring your **ATTENTION** towards the movement in your underbelly. This is caused by **BREATH** entering and leaving your body. Place your hand on your underbelly to really **FEEL** how your breath moves your belly up and down. **FOLLOW** the **MOVEMENT** of your belly when it goes up on each breath into the body, and how it collapses upon breathing out. **FOCUS**, as good as possible, with your **ATTENTION**, all changing physical sensations in your belly when breath enters your body, in **BREATHING** in, and the whole way through until the breath leaves your body upon breathing out. Maybe, you will **NOTICE** the breaks in between breathing in and the time you’re breathing out…..etc....
Practice 2

The computer will record your Point Total for each round and will show you those totals after you finish all 24 rounds of the game.

This is the second practice round. Please again turn over as many cards as you would like to, given the number of loss cards and the amounts that you can win or lose if you turn over a gain or loss card, as shown below.

Loss Amount: 750  Gain Amount: 10  Number of Loss Cards: 3

No Card  STOP/Turn Over  Next Round

00:00:05.0
Mindfulness improved performance on the Columbia Card Task over time: Smaller deviation from optimal solution (p < .05)
Can a short mindfulness exercise influence financial decision-making under stress?

✓ 80 business students (50% females, Mean Age: 21.5 years)

✓ 2 (stress/no-stress) x 2 (mindful, controls)

✓ Bonus payment

✓ Dependent variables:
  ✓ **Trait Mindfulness** (Kentucky Inventory Mindfulness Skills; Baer et al., 2004)
  ✓ **State Mindfulness** (Toronto Mindfulness Scale; Lau et al., 2006)
  ✓ **Ten item personality inventory** (TIPI; Gössling et al., 2003)
  ✓ **Performance on Columbia Card Task** (Figner et al., 2008)
All groups improved performance of CCT but only in high neuroticism (stress-sensitive) individuals, mindfulness helped approach the optimal solution.
Can a short mindfulness exercise influence financial decision-making in traders?

- 45 traders at Trader Expo London
- Control group (n = 22; gameplay), MF group (n = 23; think mindful)

Dependent variables:
- Trait Mindfulness (MAAS ; Brown & Ryan , 2003)
- State Mindfulness (Toronto Mindfulness Scale; Lau et al., 2006)
- Risk (Holt & Laury, 2002)
- Ten item personality inventory (TIPI; Gössling et al., 2003)
- Performance on Two Index Game (trading simulation)
47 traders at Trader Expo London

Study III: Design
Mindful group higher score on emotion regulation in trading

Mindful participants were willing to take more risks \((p < .05)\)

After controlling for neuroticism, mindful participants ended up with more money in the bank \((p < .05)\)
After controlling for neuroticism, mindful groups demonstrated higher average pay-off on all losing trades ($p = .04$).

Mindfulness facilitated financial decision-making in terms of risk-taking and timely loss-aversion.

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Conclusions

- Mindfulness consistently improved performance on the Columbia Card Task over time (smaller deviation from the optimal solution over time, p < .05).

- Mindfulness particularly effective in people scoring high on neuroticism.

- Mindfulness facilitated emotion regulation during trading.

- Mindfulness helped individuals balance risk-taking and loss prevention.
Future research

- Short to long: Mindful Trading Training
- Effects on actual trading and real-world financial decisions
Maintain focus on task and deal with emotions.