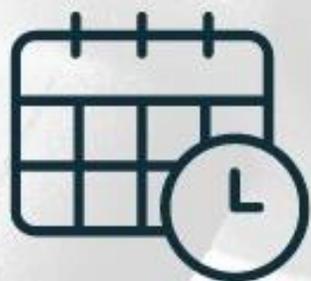


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# Self-Determination Theory Perspective: What Makes us Physically Active?



Thursday

2nd March 2023

11.30 am - 12.30 pm

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ZOOM MEETING





# **Self-Determination Theory Perspective: What Makes Us Physically Active?**

**Fatima Bint Mubarak Ladies Sports Academy  
UAE National Sports Day  
March 2, 2023**



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# Intentions for Today

The challenges of the 21<sup>st</sup> century

Health and physical activity behavior today

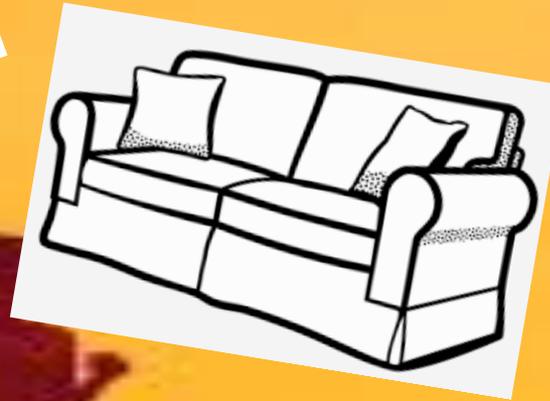
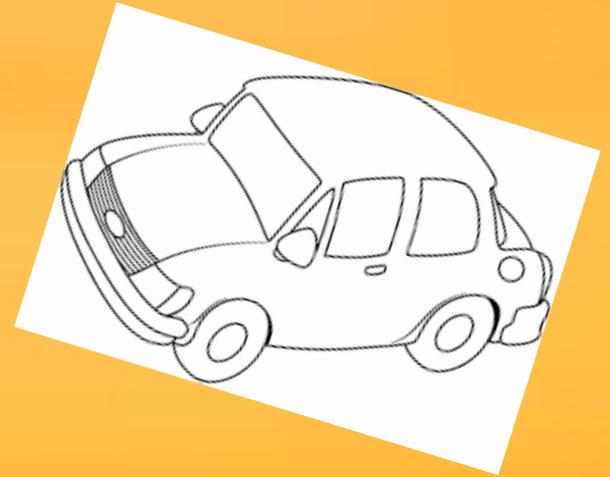
Self-Determination Theory

- What makes us physically active?
- How to change physical activity behavior?

What did we learn?



# The Challenges of the 21<sup>st</sup> Century



# Did you know?

The UAE has one of the world's highest prevalence rates of type-2 diabetes at **16.3%**

It is estimated that 1 in 5 Emirati people have the condition, which is expected to double by 2040



Approximately 40.7% of adults (aged 20–79 years) with type-2 diabetes are unaware that they have the condition.

# Physical Activity Behavior

- Nearly **58%** of the UAE adult population self-reports as being physically inactive
- **71%** of Emirati adults with insufficient physical activity
- Both males and females spent **~80%** of waking hours in sedentary behavior

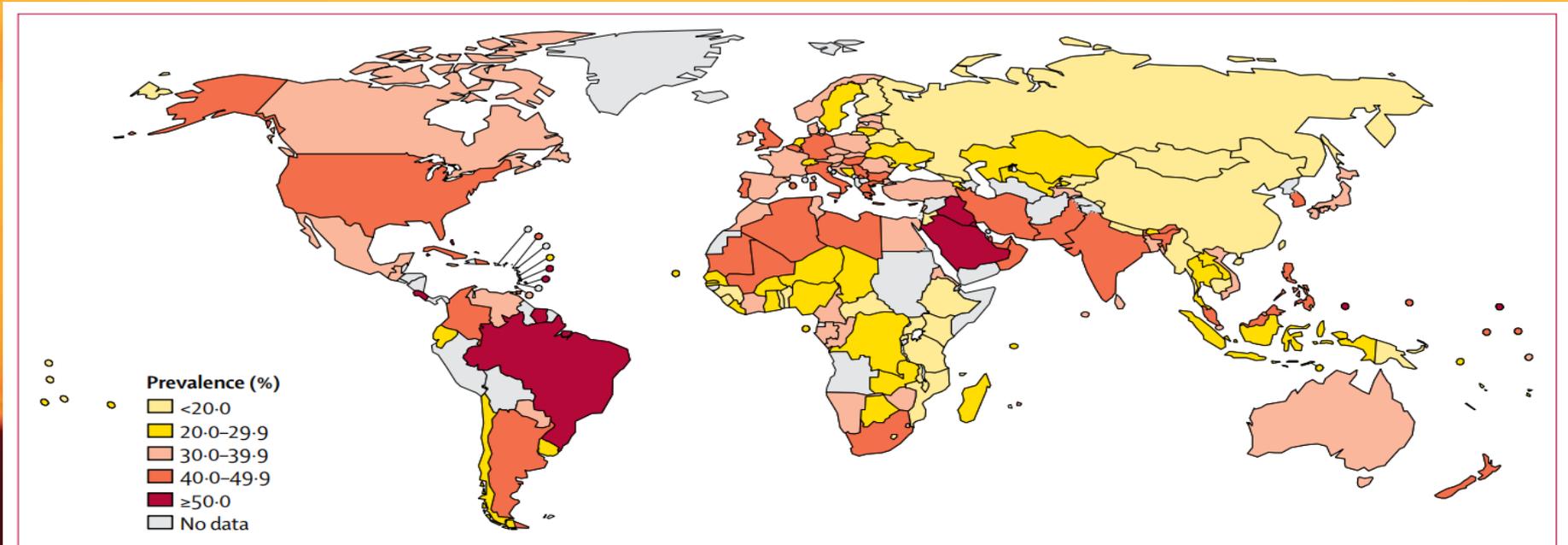


Figure 5: Country prevalence of insufficient physical activity in women in 2016

# What Makes Us Physically Active?

## Intrinsic motivation

- Doing an activity for its inherent satisfaction rather than for some other consequences.
- When intrinsically motivated, a person acts for the fun or challenge rather than because of external products, pressures, or rewards.

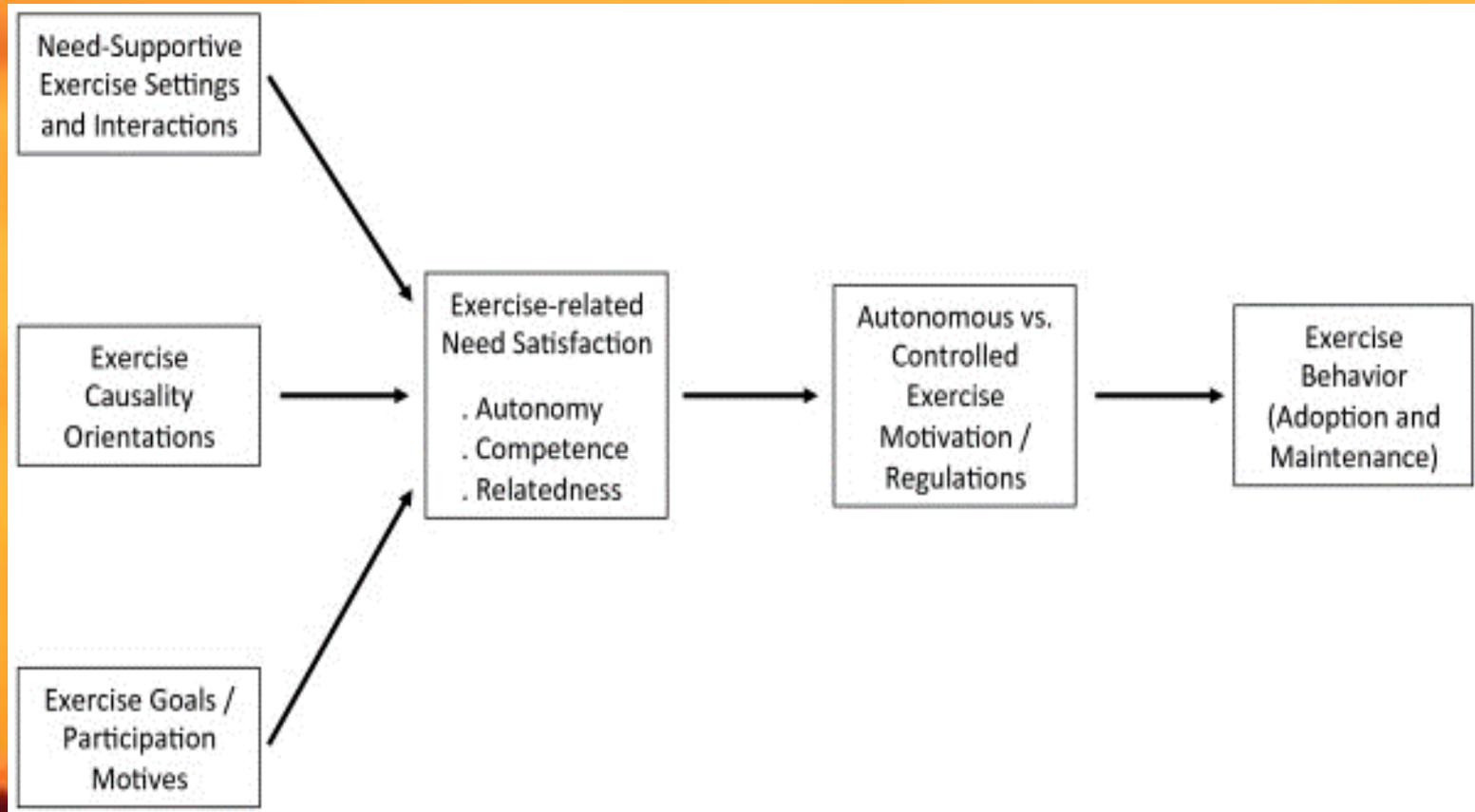


# What Makes Us Physically Active?

To feel **intrinsically motivated**, people need to be able to make meaningful choices over what they are doing (autonomy), be challenged by a task but feel like they can succeed (competency) and feel connected to those around them (social relatedness).



# What Makes Us Physically Active?



# Accelerometer-based physical activity in need satisfaction profiles of schoolchildren: A 3-year follow-up

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## Abstract

This study examined moderate-to-vigorous physical activity (MVPA) trends in physical education (PE) classes and beyond school hours in children's need satisfaction profiles over 3 years. Participants were 445 (girls 256, boys 189) Finnish schoolchildren ( $M_{\text{age}} = 11.26 \pm 0.32$  years). Need satisfaction self-reports and accelerometer-based MVPA data were collected in 17 comprehensive schools over four assessment phases. Four latent profiles based on the need satisfaction trends over time were found: Profiles with Large Decrease, Small Decrease, Small Increase, and Large Increase. The children with the most prominent need satisfaction decreases showed a significant decline in out-of-school MVPA. All the children, irrespective of their need satisfaction profile, exhibited similar patterns of MVPA in PE over the 3-year follow-up. Developing need satisfactions and out-of-school MVPA of the children with the greatest need satisfaction decreases may require enhancements in need-supportive PE activities.

## Keywords

Competence, autonomy, relatedness, accelerometer, regression auxiliary model

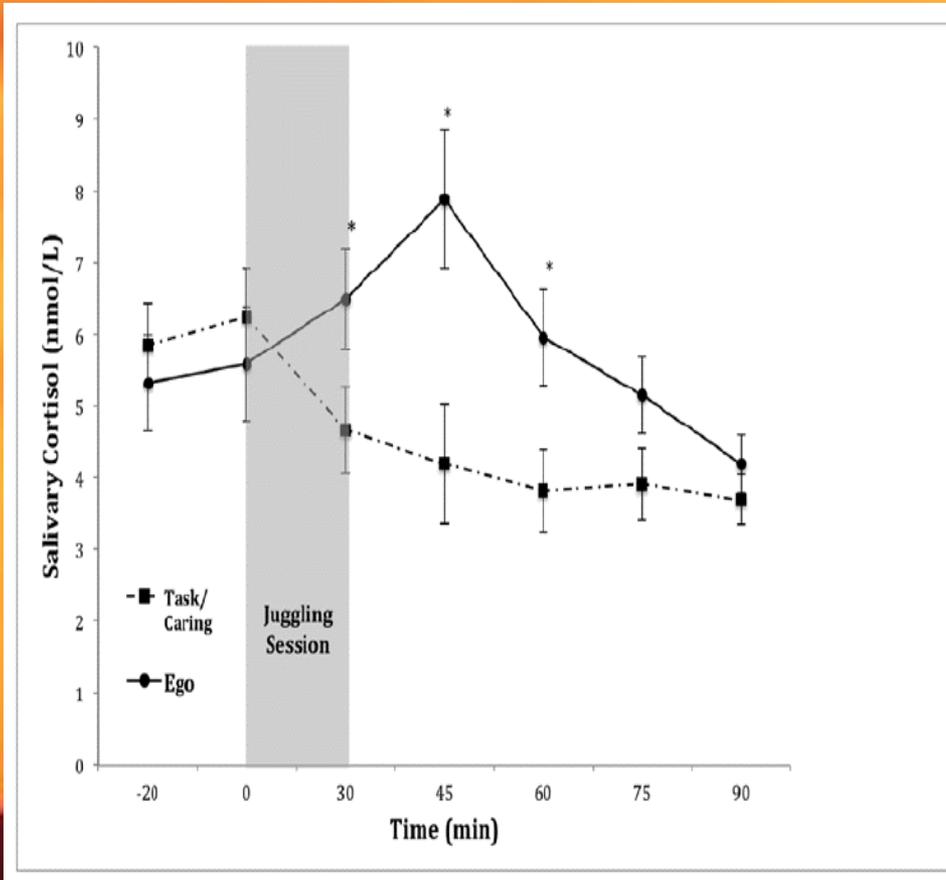
The children with the most prominent need satisfaction decreases showed a significant decline in out-of-school MVPA.

Table 5. Means and standard deviations of the study variables by profiles and the profile distributions.

		Profile 1		Profile 2		Profile 3		Profile 4							
		Large Decrease	M (SD)	Small Decrease	M (SD)	Small Increase	M (SD)	Large Increase	M (SD)						
Competence	T0	3.31 (0.88) <sup>2,3,4</sup>	3.92 (0.73) <sup>1,4</sup>	3.72 (0.71) <sup>1,4</sup>	2.73 (0.66) <sup>1,2,3</sup>										
	T1	2.37 (0.89) <sup>2,3,4</sup>	3.01 (0.86) <sup>1,3,4</sup>	4.02 (0.60) <sup>1,2,4</sup>	3.49 (0.81) <sup>1,2,3</sup>										
	T2	1.95 (0.69) <sup>2,3,4</sup>	2.94 (0.64) <sup>1,3,4</sup>	3.93 (0.58) <sup>1,2,4</sup>	3.51 (0.64) <sup>1,2,3</sup>										
	T3	1.91 (0.78) <sup>2,3,4</sup>	2.90 (0.63) <sup>1,3,4</sup>	4.00 (0.66) <sup>1,2,4</sup>	3.40 (0.66) <sup>1,2,3</sup>										
Autonomy	T0	2.74 (0.77) <sup>2,3,4</sup>	3.57 (0.64) <sup>1,3,4</sup>	3.20 (0.60) <sup>1,2,4</sup>	2.40 (0.58) <sup>1,2,3</sup>										
	T1	2.10 (0.79) <sup>2,3,4</sup>	2.57 (0.64) <sup>1,3,4</sup>	3.45 (0.60) <sup>1,2,4</sup>	2.83 (0.70) <sup>1,2,3</sup>										
	T2	1.77 (0.48) <sup>2,3,4</sup>	2.65 (0.63) <sup>1,3,4</sup>	3.57 (0.48) <sup>1,2,4</sup>	3.05 (0.62) <sup>1,2,3</sup>										
	T3	1.68 (0.50) <sup>2,3,4</sup>	2.53 (0.56) <sup>1,3,4</sup>	3.54 (0.63) <sup>1,2,4</sup>	2.89 (0.61) <sup>1,2,3</sup>										
Relatedness	T0	3.72 (0.72) <sup>2,4</sup>	4.23 (0.51) <sup>1,3,4</sup>	4.03 (0.54) <sup>2,4</sup>	2.97 (0.68) <sup>1,2,3</sup>										
	T1	2.76 (0.79) <sup>2,3,4</sup>	3.46 (0.75) <sup>1,3,4</sup>	4.18 (0.55) <sup>1,2,4</sup>	3.76 (0.65) <sup>1,2,3</sup>										
	T2	2.28 (0.62) <sup>2,3,4</sup>	3.35 (0.57) <sup>1,3,4</sup>	4.14 (0.57) <sup>1,2,4</sup>	3.79 (0.59) <sup>1,2,3</sup>										
	T3	2.00 (0.69) <sup>2,3,4</sup>	3.31 (0.57) <sup>1,3,4</sup>	4.08 (0.66) <sup>1,2,4</sup>	3.74 (0.51) <sup>1,2,3</sup>										
MVPA in PE	T0	20.36 (13.51)	23.40 (14.33)	21.86 (13.91)	22.69 (13.80)										
	T1	20.77 (9.04)	19.20 (11.41)	20.49 (11.02)	19.49 (9.27)										
	T2	26.67 (13.85) <sup>3</sup>	21.44 (14.06)	18.75 (14.03) <sup>1</sup>	20.67 (17.63)										
	T3	20.69 (23.27)	18.96 (19.24)	19.18 (19.33)	26.69 (23.56)										
Out-of-school MVPA	T0	45.30 (21.70) <sup>4</sup>	39.21 (20.98) <sup>4</sup>	42.15 (21.09) <sup>4</sup>	32.65 (17.81) <sup>1,2,3</sup>										
	T1	40.79 (18.41) <sup>4</sup>	40.16 (20.80) <sup>4</sup>	40.28 (19.14) <sup>4</sup>	29.35 (15.40) <sup>1,2,3</sup>										
	T2	26.85 (11.71)	37.00 (20.54)	35.89 (21.94)	30.88 (14.00)										
	T3	32.59 (16.54)	39.07 (26.33)	39.51 (25.83)	23.51 (16.89)										
Profile distributions	Girls	25	80	66	85	Boys	21	70	56	42	Boys	46	150	122	127
	All	46	150	122	127	All	46	150	122	127	All	46	150	122	127

Notes. The superscripts indicate the significant between-profile mean differences at  $p < 0.05$  level.

# The Importance of Need-Support



- Participants (n = 107) randomized to Task and Ego groups (stress-responsive cortisol hormone)
- Juggling for 30 min over 2 hr sessions
- Task: enjoyment, effort, self-confidence, and interest and excitement regarding future juggling
- Ego: anxiety, stress, shame, and self-consciousness

# Why do people prefer simple solutions to complex problems?



# How to Change Behavior?

**Positive approach:** Goals should be framed in positive terms. As humans, we are not designed to avoid certain thoughts, feelings, actions, or circumstances.

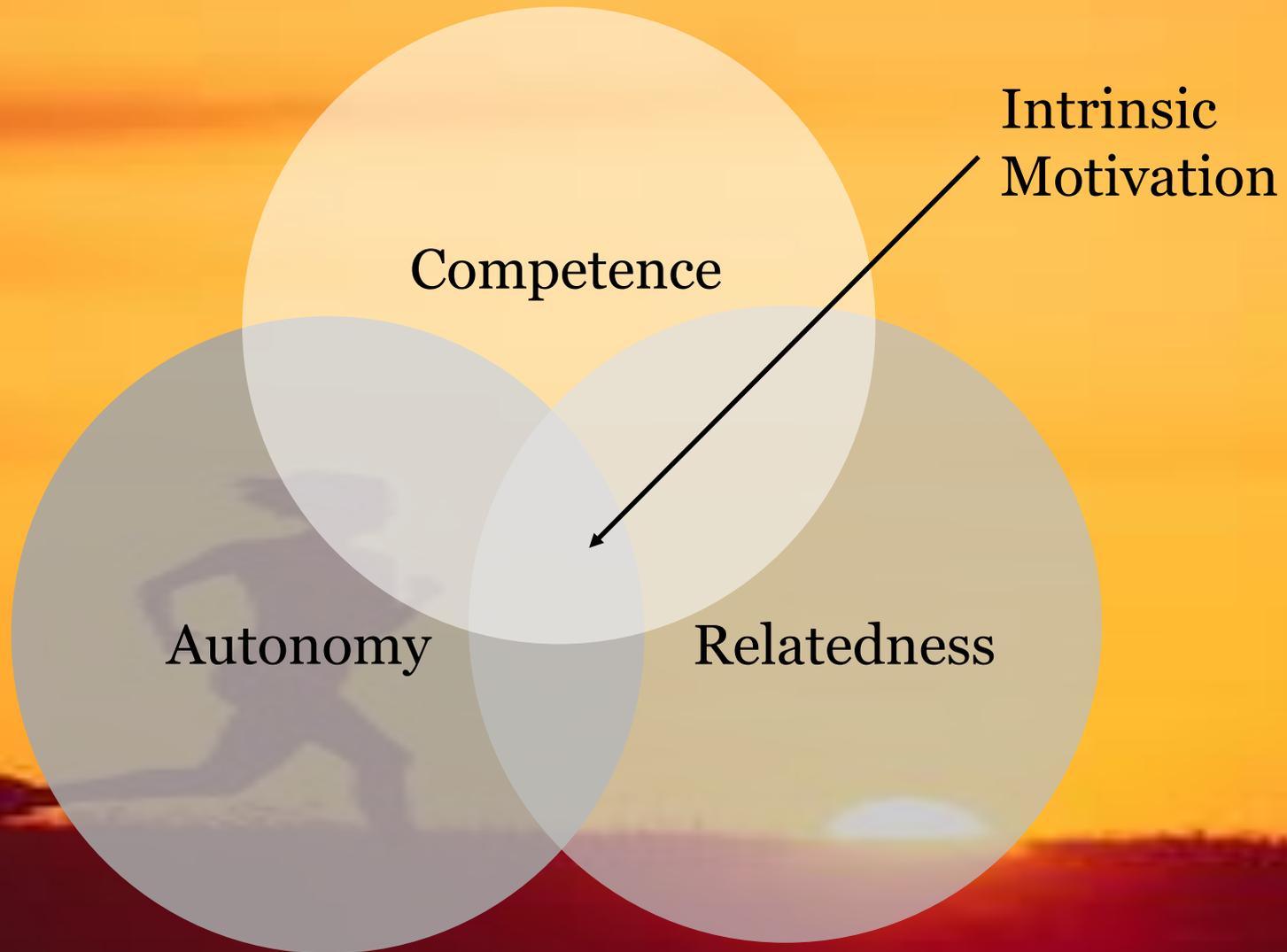
**Flexibility:** Good strategies are flexible because of unexpected factors.



Is your glass half full or half empty?



# What did we learn?



# Thank you!

