חוסן – לא מה שחשבנו

ד"ר משה פרחי

ראש החוג לעבודה סוציאלית

במכללה האקדמית תל חי

חוסן

מה הוא חוסן??

Resilience

the ability to become strong, healthy, or successful again after something bad happens

resilience
/rɪˈzɪlɪəns/

noun

1. the ability of a substance or object to spring back into shape; elasticity.
   "nylon is excellent in wearability, abrasion resistance and resilience"
   synonyms: flexibility, pliability, suppleness, plasticity, elasticity, springiness, spring, give; More
2. the capacity to recover quickly from difficulties; toughness.
   "the often remarkable resilience of so many British institutions"

re·sil·ience *noun* \ri-ˈzil-yən(t)s\

Definition of RESILIENCE

1 : the capability of a strained body to recover its size and shape after deformation caused especially by compressive stress

2 : an ability to recover from or adjust easily to misfortune or change

Outcome measures

How to do that??

What are the tools??

What are the human potential coping resources?

BASIC-PH Model of coping reassures Lahad, 1994

* Belief
* Affect
* Social
* Imagination
* Cognitive
* Physical

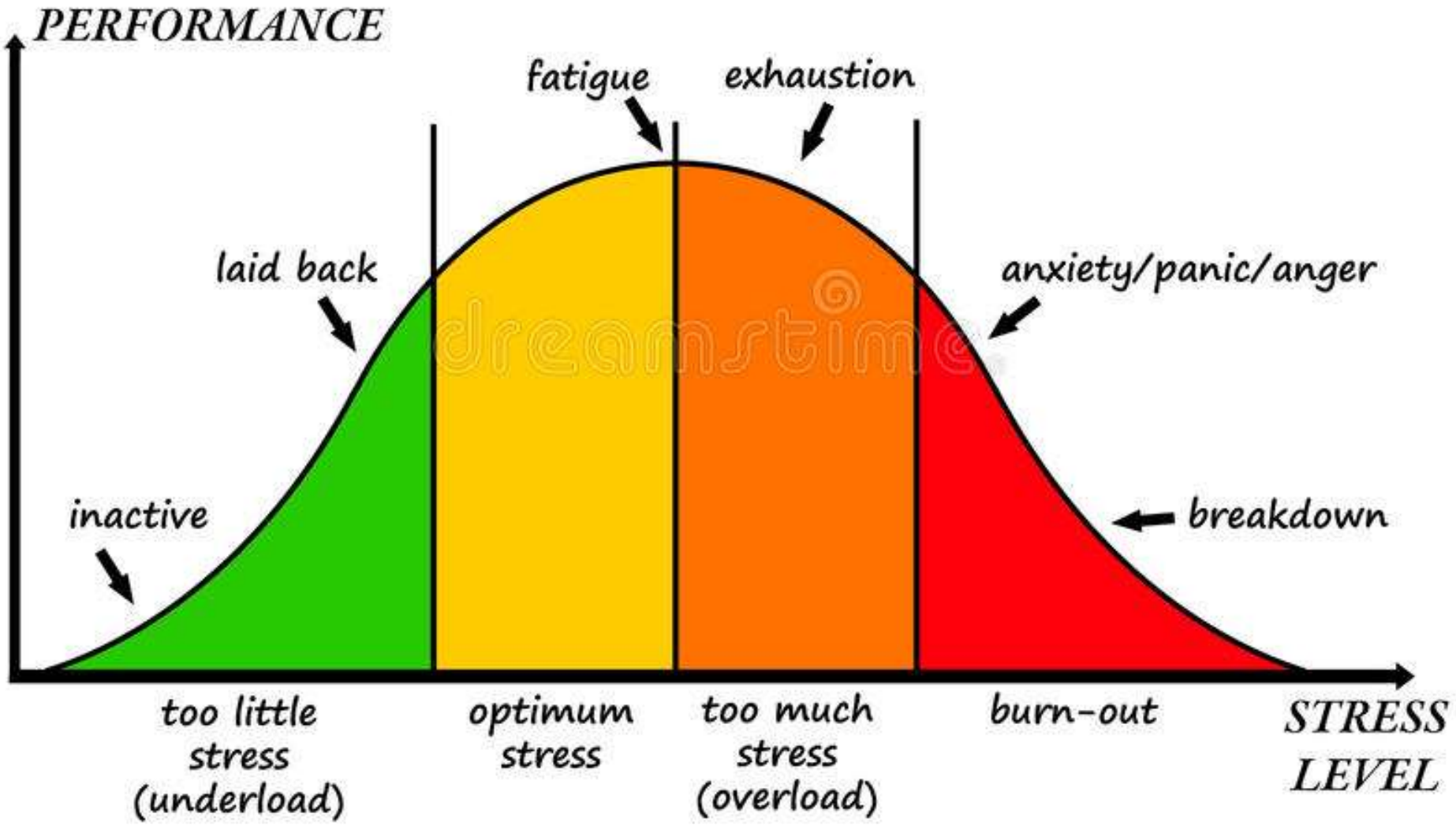
Conservation of resources (COR) Hobfoll, 1992

* Roof above your head
* Financial resources
* Social support
* Hope, Optimism

הגדרת החוסן האפקטיבי
(פרחי 2019)

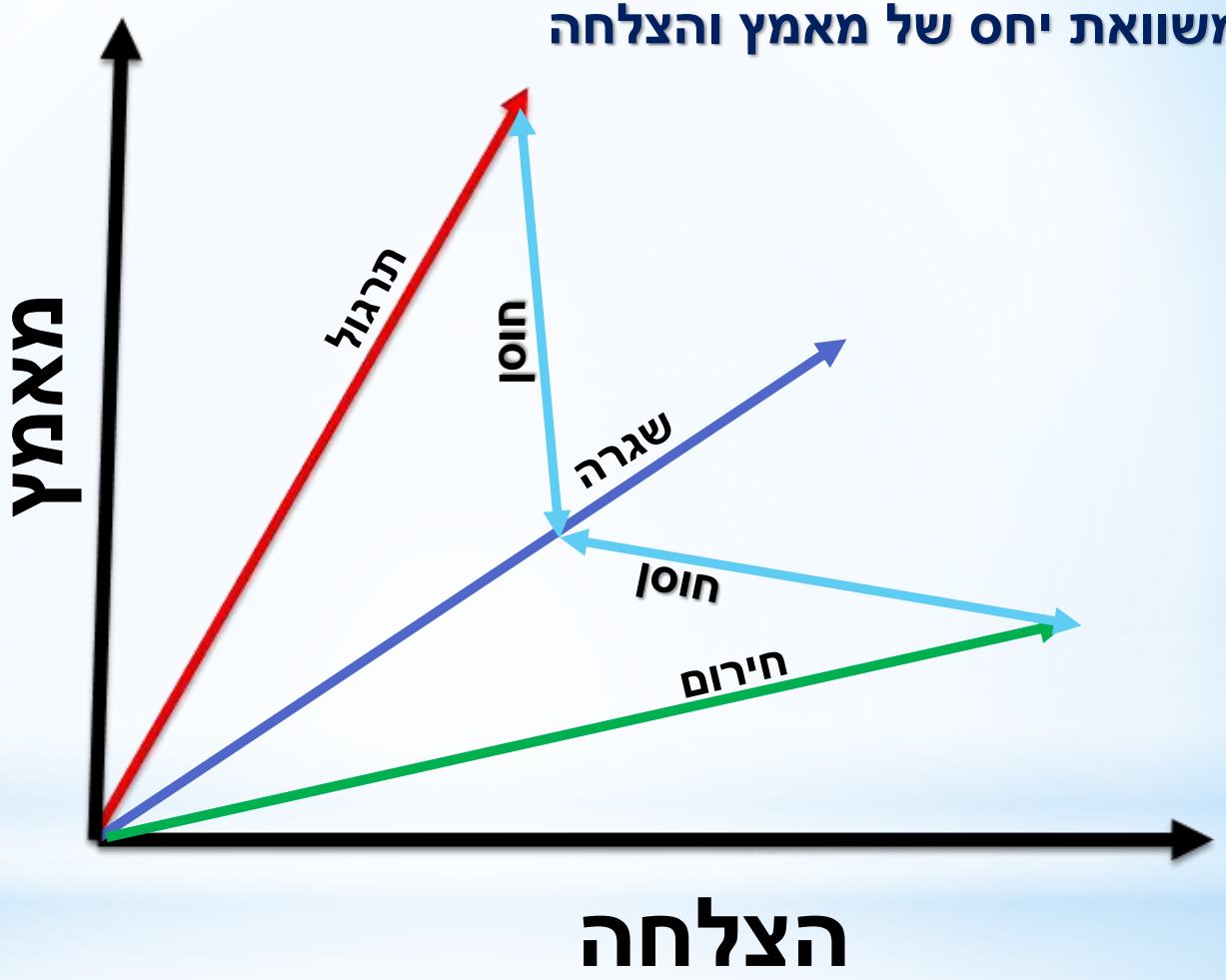
היכולת לבצע התאמה מדוייקת בין משאבי ההתמודדות הקיימים ובין האיומים (אתגרים) הנמצאים מולנו ולבצע שימוש יעיל במשאבים אל מול האתגרים

STRESS CURVE

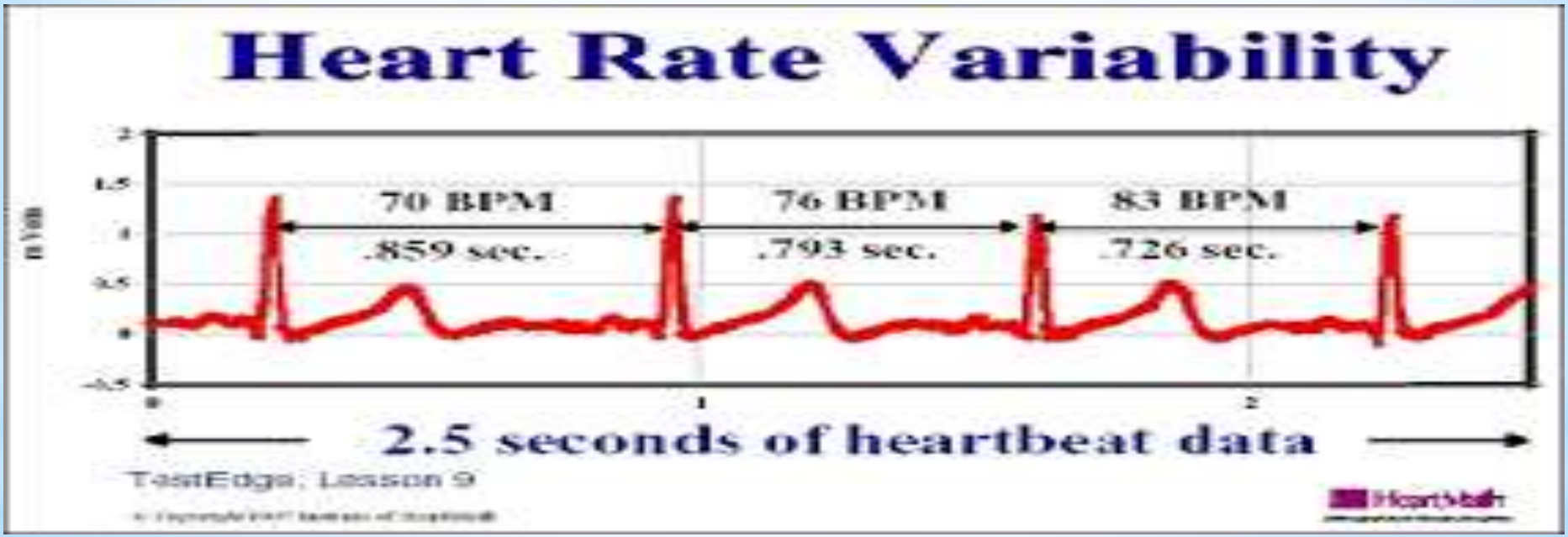


חוסן כמשוואת יחס של מאמץ והצלחה

(פרחי, 2017)



The physiological resiliency



האנטומיה של עצב הואגוס

Heart Rate Variability as an Index of Resilience

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ABSTRACT Introduction: Resilience is the ability to maintain or quickly return to a stable physical and psychological equilibrium despite experiencing stressful events. Flexibility of the autonomic nervous system is particularly important for adaptive stress responses and may contribute to individual differences in resilience. Power spectrum analysis of heart rate variability (HRV) allows measurement of sympathovagal balance, which helps to evaluate autonomic flexibility. The present study investigated HRV as a broad index of resilience. Materials and Methods: Twenty-four male participants from the Army National Guard Special Forces completed psychological measures known to relate to resilience and had HRV measured while undergoing stressful virtual environment scenarios. Pearson product-moment correlations were used to explore the relationships between HRV and resilience factors. All research was conducted with the oversight of the Human Subjects Review Committee of Fuller Theological Seminary. Results: Trends toward significance were reported in order to provide results that would reasonably be expected in a study of higher power. Trends between resilience factors and HRV were found only during specific stress-inducing simulations (see Tables III). Conclusion: Greater resilience to stress was associated with HRV during nonstress periods. Higher levels of resilience to traumatic events were associated with HRV during circumstances that were more stressful and emotionally distressing. Post hoc analysis revealed that specific factors including flexibility, emotional control, and spirituality were driving the relationship between general resilience and HRV following emotionally laden stressors. Less stress vulnerability was associated with HRV following intermittent brief stressors. In sum, HRV appears to represent some aspects of an individual's overall resilience profile. Although resilience remains a complex, multidimensional construct, HRV shows promise as a global psychophysiological index of resilience. This study also offers important perspectives concerning ways to optimize both physical and psychological health.

INTRODUCTION

An individual with a balanced, flexible autonomic nervous system easily transitions between high and low arousal states, rapidly modulating the physiological and emotional arousal elicited by environmental stressors.[1] Most individuals exhibit resilience and maintain relatively healthy levels of functioning despite stress or trauma.[2] In contrast, an individual with autonomic rigidity is less capable of effectively regulating arousal, leaving stress as a risk factor for the precipitation and exacerbation of a wide range of disorders.[3]

Sympathetic activation has an excitatory effect on the sinoatrial node that increases heart rate, whereas parasympathetic (vagal) activation has greater influence at rest and serves to maintain a baseline heart rate.[4] The two latencies of action produce oscillations in heart rate at different frequencies, which serve as the basis for heart rate variability (HRV), a noninvasive measure of the constant interaction between the sympathetic and parasympathetic effects on heart rate. Although HRV provides insight into autonomic flexibility that supports capacity for effective stress regulation, few researchers have focused on psychophysiological markers of stress resilience.[5]

According to the Task Force of the European Society of Cardiology and the North American Society of Pacing Electrophysiology,[6] HRV is the variation among a set of temporally ordered inter-beat intervals from a continuous measure of heart rate. The most basic component of HRV measurement is the time between one beat and the next. Power spectral analysis measures the power of high frequency (HF), fast acting influences (0.15–0.40 Hz) and low frequency (LF), slow acting influences (0.04–0.15 Hz) on heart rate. Although widely accepted that the HF range reflects vagal influence,[7] the exact physiological nature of the LF range and the LF to HF ratio (LF/HF) is debated.[8] Despite debate, many prominent researchers use LF HRV as a measure of sympathetic activity and LF/HF as a measure of sympathovagal balance between the sympathetic and parasympathetic influences on the heart.[9]

A balanced autonomic system is considered healthy because it can respond to a wide variety of physiological and environmental demands; however, a rigid autonomic system is less favorable given its tendencies to fixate to particular patterns.[10] Therefore, the heart rate of a healthy system oscillates spontaneously with a high HRV, whereas a diseased, dysregulated heart has little to no HRV. HRV may

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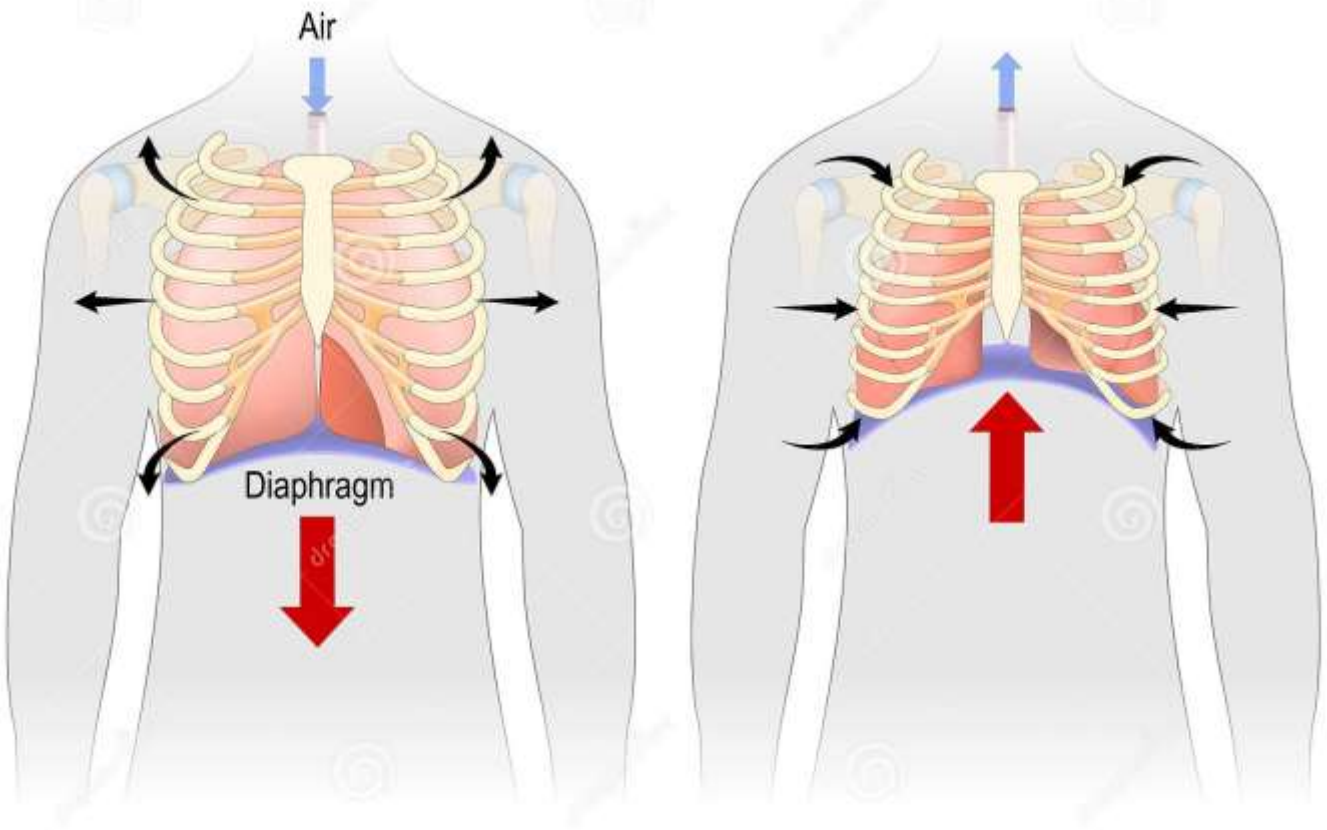
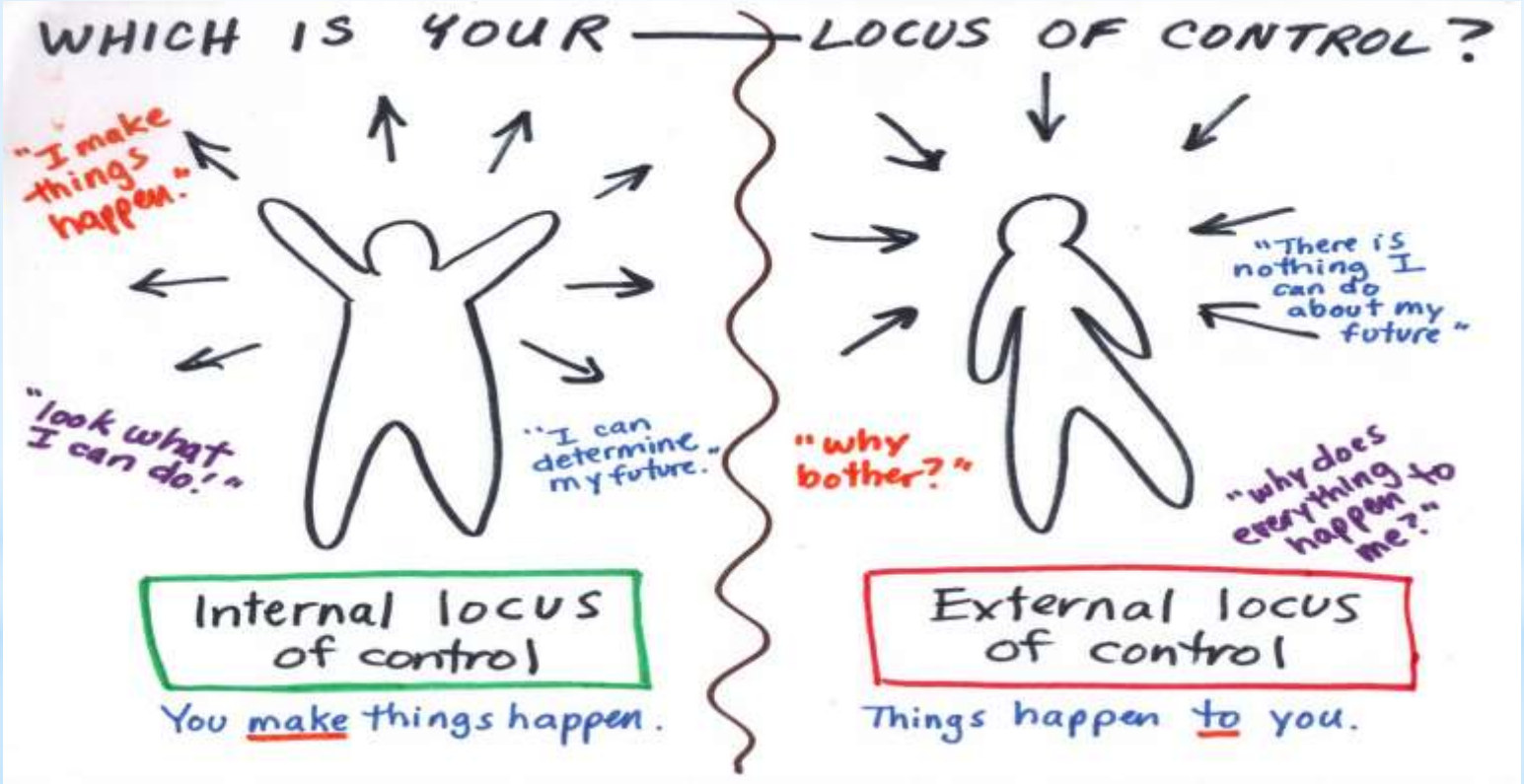
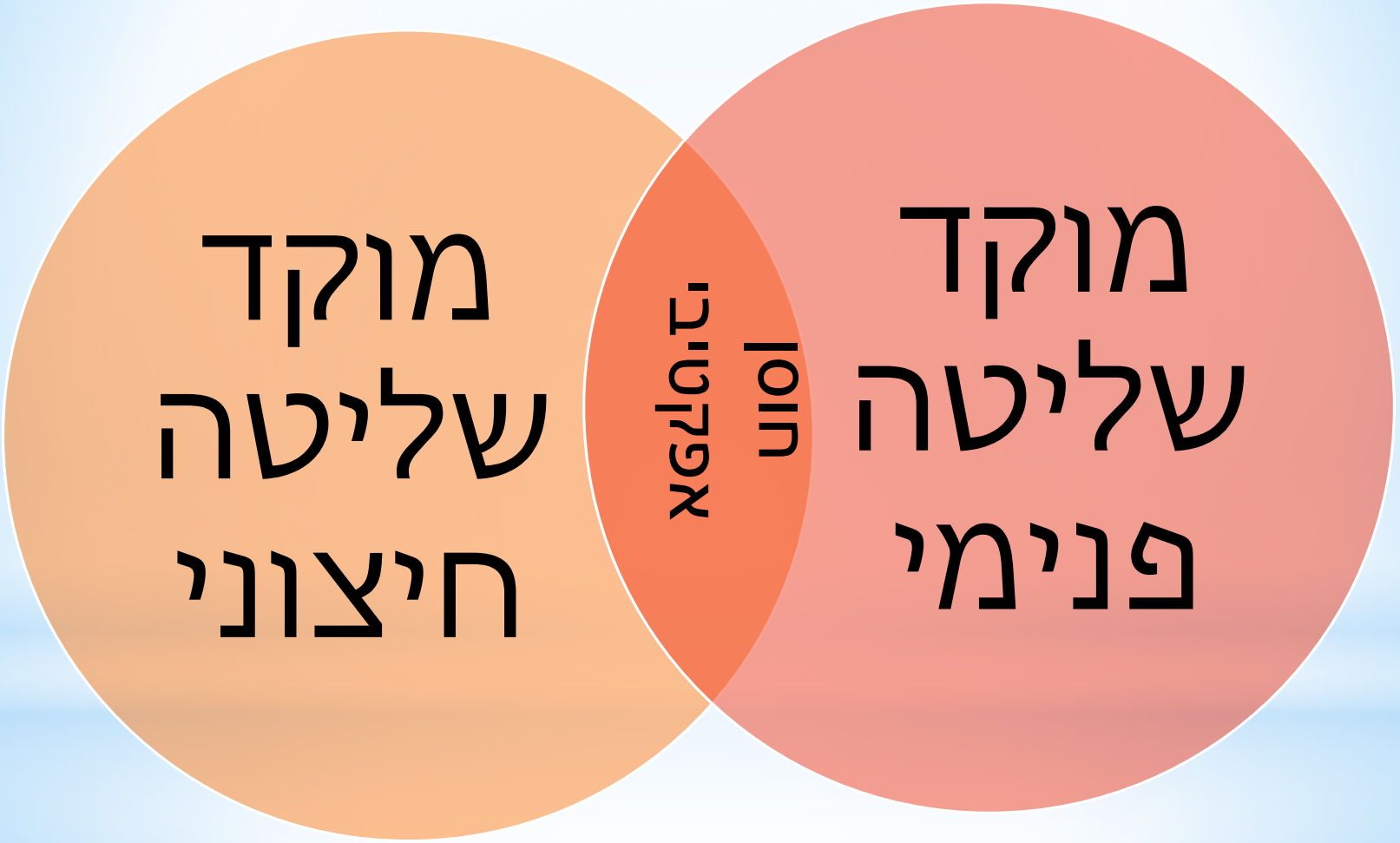
BREATHING




WHICH IS YOUR LOCUS OF CONTROL?
"I make things happen."
"look what I can do!"
"I can determine my future."
"why bother?"
"There is nothing I can do about my future"
"why does everything happen to me?"
Internal locus of control
You make things happen.
External locus of control
Things happen to you.

Resiliency is flexibility



לסיכום : חוסן = גמישות

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