

INTERNATIONAL PILOT PEER ASSIST COALITION

**IPPPAC**

International Pilot Peer Assist Conference (IPPPAC) – October 25-26,

2019

# WINGMAN TWO

Pilot Profile and Job Vulnerabilities

October 25, 2019 – 10:45 am – 12:00 pm

Dr. Patrick J. Carnes



**Recovery does not equal sobriety.**

**Recovery at its core is**

**Resilience.**



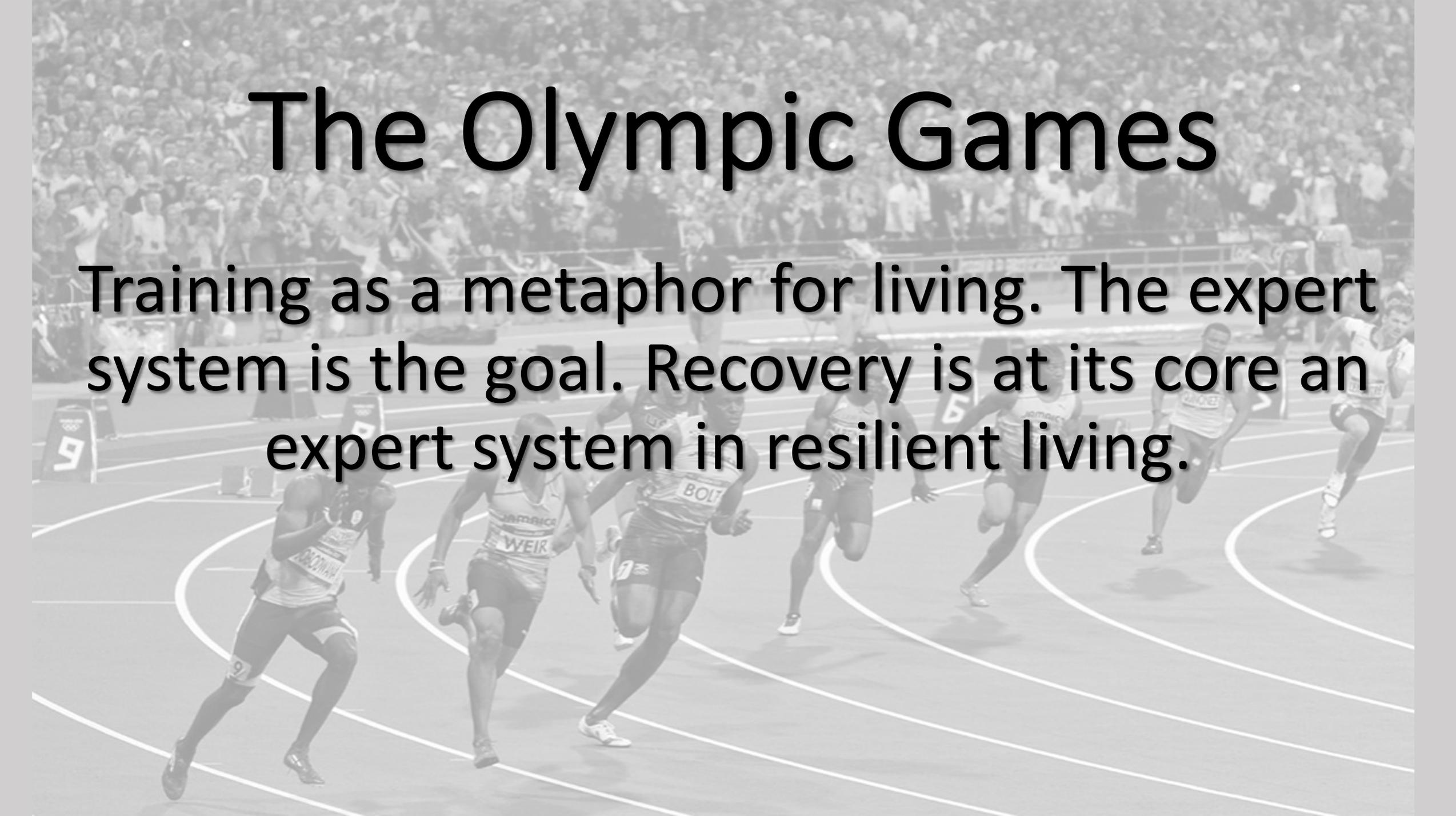
Resilience is about focus and intention in the face of adversity. Often it is the reclaiming of self from identity theft. Always it is about self definition, excellence, and purpose.

# Legitimate Suffering

- Ben Franklin
- Change and Loss
- Betrayal
- Chaos – stuff happens
- The Furies and the Eumenides
- Vitu
- Agony



# The Olympic Games



Training as a metaphor for living. The expert system is the goal. Recovery is at its core an expert system in resilient living.

Brett Favhre





# Physicians

ORIGINAL ARTICLE

# Risk factors for fatigue among airline pilots

Alwin van Drongelen<sup>1,2</sup> · Cécile R. L. Boot<sup>1,3</sup> · Hynek Hlobil<sup>1,2</sup> · Tjabe Smid<sup>1,2</sup> · Allard J. van der Beek<sup>1,3</sup>

Received: 25 April 2016 / Accepted: 19 September 2016 / Published online: 24 September 2016  
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## Abstract

**Purpose** The objective of this study is to determine risk factors for fatigue among airline pilots, taking into account person-, work-, health-, sleep-, and lifestyle-related characteristics.

**Methods** The study population consisted of 502 pilots who participated in the MORE Energy study. Included risk factors were either measured through an online questionnaire or provided by the company. The outcome of this study, fatigue, was assessed using the Checklist Individual Strength (CIS), and was defined as scoring more than 76 points on this questionnaire. The association of the risk factors with fatigue was determined using univariate and multivariate logistic regression analyses.

**Results** Of the participating pilots, 29.5 % scored more than 76 points on the CIS and were classified as being fatigued. The fully adjusted regression model showed that person-, work-, health-, and lifestyle-related characteristics were associated with fatigue. Pilots who were aged 31 to 40 (OR 3.36, 95 % CI 1.32–8.53) or 41 to 50 (OR 4.19, 95 % CI 1.40–12.47), an evening type (OR 2.40, 95 % CI 1.38–4.16), scored higher on work-life balance disturbance (OR 1.22, 95 % CI 1.10–1.36), scored higher on need for recovery (OR 1.02, 95 % CI 1.01–1.04), scored lower on general health perception (OR 0.31, 95 % CI 0.20–0.47), were less physically active (OR 0.77, 95 % CI 0.66–0.89), and had a moderate alcohol consumption (OR 3.88, 95 % CI 1.21–12.43), were at higher risk for fatigue.

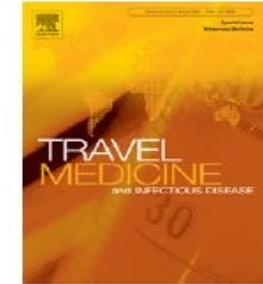
**Conclusions** Higher age, being an evening type, disturbance of the work-life balance, more need for recovery, a lower perceived health, less physical activity, and moderate alcohol consumption were shown to be risk factors for fatigue. Further longitudinal research is needed to elucidate the direction of the associations found and to evaluate the effects of possible countermeasures in airline pilots.



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# Psychological factors in airline passenger and crew behaviour: A clinical overview

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Received 15 March 2007; accepted 19 March 2007

Available online 9 May 2007

## KEYWORDS

Aviation psychology;  
Passenger behaviour;  
Fear of flying;  
Crew mental health

## Summary

Air travel places unique physical and psychological demands on the traveller and air crew. This paper presents a general overview of the psychological aspects of air travel and specifically how air travel affects airline passenger and crew behaviour. It covers travel and stress, the effects of travel on behaviour, fear of flying, disruptive passenger behaviour and crew mental health, highlighting what insights clinical psychology can offer in relation to these.

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## High level of work stressors increase the risk of mental-emotional disturbances among airline pilots

Indah Suci Widyahening

**Abstract** *Civilian airline pilots have one of the most stressful occupations. The aim of this study was to identify the effect of work stressors and other factors on mental-emotional disturbances among airline pilots. A cross-sectional study was done by interviewing selected pilots of an airline using appropriate questionnaires, during their routine medical examination from May to July 1999 in Jakarta. Five aspects of work stressor were assessed: working conditions, physical conditions of working environment, career development, organization and interpersonal relationship. Mental-emotional disturbances were determined by using the Symptom Checklist 90 (SCL 90) questionnaire. Data analysis was carried out using relative risk by Cox regression with constant time. From 128 subjects interviewed, 109 could be analyzed. Most of the subjects were married (73.4%) and college graduates (91.7%). The number of captains and first officers were almost equal. The prevalence of mental-emotional disturbances was 39.4%. Mental-emotional disturbances were significantly related to work stressors and moderately related to household tension ( $P = 0.184$ ). Compared to pilots with low levels of work stressors, those with high or very high levels of work stressors had a risk of 4.6 times of mental-emotional disturbances [adjusted relative risk (RRa) = 4.64; 95% confidence interval (CI) = 1.01 – 19.65]. Adequate guides to cope work stressors and household tension which related to mental-emotional disturbance is recommended. (Med J Indones 2007; 16:117-21)*

**Keywords:** *mental-emotional disturbance, work stressors, household tension, airline pilots*

2016

# Airline Pilots in Recovery From Alcoholism: A Quantitative Study of Cognitive Change

Heather Christina Hamilton  
*Walden University*

## Abstract

In order to perform their duties, airline pilots must have no clinical diagnosis of mental illness or any substance use disorder. However, provisions have been in place since the 1970s that provide for a return to work for airline pilots with alcohol problems. To date, over 5,000 airline pilots have undergone rehabilitation for Alcohol Use Disorder (AUD) and successfully returned to work. An important gap in the literature remains with regard to what extent improvements in cognitive performance may be experienced by airline pilots who complete treatment and to what extent age influences the amount of change. This study examined the archival data of 95 male Caucasian pilots who were assessed for cognitive performance shortly after entry to 30-day inpatient treatment and approximately 5 months later during the return to work evaluation. A nonexperimental within subjects design compared pre- and post-treatment scores on the Wechsler Adult Intelligence Scale-IV (WAIS-IV) full scale and 4 index scores as well as differences for age groups (25 to 44, 45 to 54, and 55 to 64). Repeated measures ANOVA revealed that there were significant gains on all WAIS-IV measures pre-post treatment for AUD. MANOVA results indicated no differences between age groups. These findings support current Federal Aviation Administration program practices with regard to returning airline pilots to work following rehabilitation and a sufficient period of abstinence. The potential of this study to promote the agenda of social change may be substantive for raising awareness of the cognitive deficits associated with AUD and how these may impact the safety of flight operations.

# Prevalence of Fatigue in a Group of Airline Pilots

## Prevalence of Fatigue in a Group of Airline Pilots

CÁTIA REIS, CATARINA MESTRE, AND HELENA CANHÃO

REIS C, MESTRE C, CANHÃO H. *Prevalence of fatigue in a group of airline pilots*. *Aviat Space Environ Med* 2013; 84:828–33.

**Background:** Fatigue is a common phenomenon in airline pilots that can impair alertness and ability of crewmembers to safely operate an aircraft and perform safety related tasks. Fatigue can increase the risk of an incident or even an accident. This study provides the first prevalence values for clinically significant fatigue in Portuguese airline pilots. The hypothesis that medium/short-haul pilots may currently present different levels of fatigue than long-haul pilots was also tested. **Methods:** A survey was conducted by requesting Portuguese airline pilots to complete questionnaires placed in the pilots' personal lockers from 1 April until 15 May 2012. The questionnaire included the self-response Fatigue Severity Scale (FSS) to measure subjective fatigue and some additional questions concerning perception of fatigue by pilots. **Results:** The prevalence values for total and mental fatigue achieved in the Portuguese airline pilots were: 89.3% (FSS  $\geq$  4) and 94.1% (FSS  $\geq$  4) when splitting the sample in two subsamples, long- and medium/short-haul pilots. Levels of total and mental fatigue were higher for medium/short-haul pilots. **Discussion:** The analysis of fatigue levels in each type of aviator showed that medium/short-haul pilots presented the highest levels of total and mental fatigue. This study produced the first prevalence values of total and mental fatigue among Portuguese airline pilots, which represents a great step to understanding and addressing this critical phenomenon. **Keywords:** aviation, fatigue, prevalence, pilots.

FATIGUE IS AN important factor in modern aviation, usually attributed to long duty periods, disruptive schedules, circadian disruptions, and sleep deprivation (3). There are several definitions of fatigue in the literature; however, this paper discusses fatigue in the context of the commercial aviation industry. Fatigue is defined by the International Civil Aviation Organization, the entity responsible for supervising civil aviation, as "a physiological state of reduced mental or physical performance capability resulting from sleep loss or extended wakefulness, circadian phase, or workload (mental and/or physical activity) that can impair a crewmember's alertness and ability to safely operate an aircraft or perform safety related duties" (12).

Over the last 30 yr, air traffic around the world has doubled every 10 yr. Total costs have also risen. Beginning in the early eighties, the cost of fuel was the main factor. But after the terrorist attacks of September 2001, the costs associated with passenger security created an additional expense (8,17). The "low cost/low fares" model, which appeared in the late seventies, has also increased airline competition to reduce fares. The combination of rising costs and reduced fares in the last 10 yr has created an emphasis on efficiency and productivity. Reducing the costs of labor is a number one priority for most companies and also translates to extended work/fly periods for aircrew. The maximum duty and minimum rest present in flight and rest legislation are "Goals

of Productivity" for the majority of airlines around the world (8,17). As such, it is not surprising that fatigue is a clear and real risk among commercial airline pilots. NASA's Aviation Safety Reporting System indicates that 21% of reported aviation events are fatigue related (24).

While general fatigue is important for any professional, mental fatigue is extremely important in this professional group, taking into account all the demands of safe airline flight. Mental fatigue refers to a feeling that can be experienced during or after long periods of cognitive activity. It involves fatigue, exhaustion, decreased level of commitment to the task, and may even lead to a strong will to stop performing (1,4). Pilot's fatigue is a genuine concern in terms of safety, health, efficiency, and productivity (9), and the quantification of this phenomenon is of major importance to the pilots' well-being and passenger's safety.

Aviator fatigue is common and well discussed by the scientific community (5,20,25), noting that it decreases performance and increases the risk for an incident or even an accident (6). In a recent study of fatigue in United Kingdom (UK) pilots, 71% of those who flew medium-haul flights reported fatigue. More concerning were the data that 81% of those reporting fatigue claimed that their fatigue was worse than 2 yr prior (13). The sample may not have been wholly representative of the pilots' population from the Professional Pilot's Rumours Network ([www.pprune.com](http://www.pprune.com)) website, since it only covered 162 individuals from a population of 49,500 registered pilots. Nevertheless, a high level of fatigue was reported and an increase in the burden of fatigue was also suggested (13). Similarly, in a study developed in a British airline company, Houston et al. (10) refer in their work to a fatigue reporting incidence value of 103 per 1000 pilots per year.

There are two different types of flights: medium/short-haul and long-haul flights. Medium/short-haul operations are flights with less than 6 h duration with several sectors in one duty period. Long haul operations are flights with 6 or more hours, usually with one or two

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This manuscript was received for review in September 2012. It was accepted for publication in February 2013.

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DOI: 10.3357/ASEM.3548.2013

Article in *Aviation Space and Environmental Medicine* • August 2013

DOI: 10.3357/ASEM.3548.2013 • Source: PubMed

# THE NEW ENGLAND JOURNAL OF MEDICINE

## SPECIAL ARTICLE

### DRINKING AND FLYING— THE PROBLEM OF ALCOHOL USE BY PILOTS

JACK G. MONELL, M.D., AND JAMES M.  
MOUNTZ, M.D., PH.D.

## SPECIAL ARTICLE

### DRINKING AND FLYING — THE PROBLEM OF ALCOHOL USE BY PILOTS

JACK G. MODELL, M.D., AND JAMES M. MOUNTZ, M.D., PH.D.

ALCOHOL is the most widely used and misused drug in the Western world. The cost to the United States in 1990 in terms of lost production, crime, accidents, and treatment related to alcohol misuse is expected to exceed \$136 billion, and alcohol intoxication is a cause or contributing factor in approximately 40 percent of all fatal automobile accidents.<sup>1</sup> Alcohol misuse is also a problem among the nearly 700,000 general-aviation pilots in this country. ("General aviation" refers to all civil-aviation operations other than those conducted for remuneration or hire; therefore, it does not include the commercial airlines or military operations.) Although the fatal-accident rate for general aviation is relatively low (about 1.5 per 100,000 hours flown in fixed-wing aircraft), a substantial portion of such accidents have been related to the consumption of alcoholic beverages before or during flight.

Although the prevalence of heavy off-duty alcohol use among airline and military pilots appears to differ little from that among general-aviation pilots,<sup>2-5</sup> the

incidence of alcohol involvement in fatal accidents during airline transport or military operations is considerably lower than that in general aviation, and no fatal accidents have been recorded within the U.S. airline-transport system in which alcohol was found to be a causative factor.<sup>6-8</sup> Although the safety records of the airlines and the military are commendable, pilot impairment by alcohol, flight safety, and legislation affecting aircrew members are issues of concern to all sectors of the aviation industry. This point was emphasized by a recent incident in which all three crew members on an aircraft of a major U.S. airline were reported to have had blood alcohol concentrations in excess of federally mandated limits at the termination of a scheduled passenger flight.<sup>9</sup>

#### ALCOHOL AND FATAL ACCIDENTS IN GENERAL AVIATION

In a landmark article, Harper and Albers reported that 35.4 percent of the general-aviation pilots involved in fatal aircraft accidents in 1963 had measurable levels of alcohol in their blood at the time of the crash<sup>10</sup>; contamination of blood by the alcoholic products of putrefaction, however, was not considered in this study, so the actual frequency of alcohol ingestion may have been lower than that reported. Numerous subsequent investigations,<sup>7,11-24</sup> most of which eliminated or adjusted for this artifact, nonetheless re-

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Supported by a grant (5-P50 AA07378) from the National Institute on Alcohol Abuse and Alcoholism to the University of Michigan Alcohol Research Center.



# The Effects of Life-Stress on Pilot Performance

*James A. Young*

*Ames Research Center, Moffett Field, California*

James A. Young

Ames Research Center

## INTRODUCTION

The fact that pilots are often reluctant to report physical complaints or illnesses for fear of being temporarily grounded or having their flying careers adversely affected is a common challenge to aviation safety. For the typical pilot there is no greater fear than losing flying status. Aviators understand that even when medical issues are not likely to be exacerbated by flight, medical personnel are required to consider the degree to which the pilot's performance may be compromised by the symptoms of the particular ailment (e.g., through spatial disorientation from labyrinthitis).

Now let's consider the aviator who struggles with psychological or emotional issues. To what degree might these life-stressors impair aviation safety? Are life-stressors as dangerous as the acute stress arising from immediate threat? Might they be more dangerous because aviators are very reluctant to seek help for these problems? For the purpose of this paper, life-stress is defined as physical and psychological symptoms (e.g., muscle tension, worry or preoccupation, disrupted sleep/fatigue, change in appetite, or alterations in social interactions such as withdrawal, irritability, or difficulty concentrating) that are often a product of difficult life circumstances. Among those circumstances are relationship difficulties, financial worries, health concerns, bereavement issues, work related problems, and separation from family. Is there any evidence to suggest that life-stress might be an issue in our aviation community? Bowles, Ursin, and Picano (2000) stated that stress researchers have recognized that the pilot has one of the most stressful jobs. In a recent publication (Burke, 2007), the executive chairman of the Air Line Pilot Association's (ALPA) human performance structure stated that, "Our representatives have seen an uptick across the board in stress-related issues, manifested in medical or professional standards issues and in general malaise...no other industry in the United States has been under more direct stress and pressure since 9/11 and we know that our members are carrying that stress (p. 24)."

One might assume that higher levels of life-stress substantially increase vulnerability to error, but many aviators claim that they can compartmentalize (i.e., to keep personal issues/feelings/thoughts outside the cockpit) to protect performance. What does the research literature tell us about this issue? If life-stress impairs performance, how common is it? What aspects of performance are affected and by what mechanisms? This paper attempts to answer these questions. Even though the primary focus of this paper is on aircrew performance the results equally apply to any skilled performer (e.g., astronauts, military personnel, air traffic controllers, maintenance personnel, medical personnel such as emergency room physicians or surgeons, corporate executives, firefighters, police officers).

2017

## Flying While Intoxicated: Options for Pilots, Airlines, and the FAA in Dealing with Alcohol Issues

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NIH Public Access

Author Manuscript

*Ment Health Subst Use*. Author manuscript, available in PMC 2015 January 01.

Published in final edited form as:

*Ment Health Subst Use*. 2014 January 1; 7(1): 75–83. doi:10.1080/17523281.2013.770414.

## Early Maladaptive Schemas in a Sample of Airline Pilots seeking Residential Substance Use Treatment: An Initial Investigation

Ryan C. Shorey<sup>1</sup>, Hope Brasfield<sup>1</sup>, Scott Anderson<sup>2</sup>, and Gregory L. Stuart<sup>1</sup>

<sup>1</sup>University of Tennessee – Knoxville

<sup>2</sup>Cornerstone of Recovery, Louisville, TN

### Abstract

**Background**—Recent research has begun to examine the early maladaptive schemas of substance abusers, as it is believed that targeting these core beliefs in treatment may result in improved substance use outcomes. One special population that has received scant attention in the research literature, despite high levels of substance use, is airline pilots.

**Aims**—The current study examined the early maladaptive schemas of a sample of airline pilots ( $n = 64$ ) who were seeking residential treatment for alcohol dependence and whether they differed in early maladaptive schemas from non-pilot substance abusers who were also seeking residential treatment for alcohol dependence ( $n = 45$ ).

**Method**—Pre-existing medical records from patients of a residential substance abuse treatment facility were reviewed for the current study.

**Results**—Of the 18 early maladaptive schemas, results demonstrated that pilots scored higher than non-pilots on the early maladaptive schema of unrelenting standards (high internalized standards of behavior), whereas non-pilots scored higher on insufficient self-control (low frustration tolerance and self-control).

**Conclusions**—Early maladaptive schemas may be a relevant treatment target for substance abuse treatment seeking pilots and non-pilots.

RESEARCH

Open Access



# Airplane pilot mental health and suicidal thoughts: a cross-sectional descriptive study via anonymous web-based survey

Alexander C. Wu<sup>1</sup>, Deborah Donnelly-McLay<sup>1</sup>, Marc G. Weisskopf<sup>2</sup>, Eileen McNeely<sup>1</sup>, Theresa S. Betancourt<sup>2</sup> and Joseph G. Allen<sup>1,3\*</sup>

## Abstract

**Background:** The Germanwings Flight 9525 crash has brought the sensitive subject of airline pilot mental health to the forefront in aviation. Globally, 350 million people suffer from depression—a common mental disorder. This study provides further information on this important topic regarding mental health especially among female airline pilots. This is the first study to describe airline pilot mental health—with a focus on depression and suicidal thoughts—outside of the information derived from aircraft accident investigations, regulated health examinations, or identifiable self-reports, which are records protected by civil aviation authorities and airline companies.

**Methods:** This is a descriptive cross-sectional study via an anonymous web-based survey administered between April and December 2015. Pilots were recruited from unions, airline companies, and airports via convenience sampling. Data analysis included calculating absolute number and prevalence of health characteristics and depression scores.

**Results:** One thousand eight hundred thirty seven (52.7%) of the 3485 surveyed pilots completed the survey, with 1866 (53.5%) completing at least half of the survey. 233 (12.6%) of 1848 airline pilots responding to the Patient Health Questionnaire 9 (PHQ-9), and 193 (13.5%) of 1430 pilots who reported working as an airline pilot in the last seven days at time of survey, met depression threshold—PHQ-9 total score  $\geq 10$ . Seventy-five participants (4.1%) reported having suicidal thoughts within the past two weeks. We found a significant trend in proportions of depression at higher levels of use of sleep-aid medication (trend test  $z = 6.74, p < 0.001$ ) and among those experiencing sexual harassment ( $z = 3.18, p = 0.001$ ) or verbal harassment ( $z = 6.13, p < 0.001$ ).

**Conclusion:** Hundreds of pilots currently flying are managing depressive symptoms perhaps without the possibility of treatment due to the fear of negative career impacts. This study found 233 (12.6%) airline pilots meeting depression threshold and 75 (4.1%) pilots reporting having suicidal thoughts. Although results have limited generalizability, there are a significant number of active pilots suffering from depressive symptoms. We recommend airline organizations increase support for preventative mental health treatment. Future research will evaluate additional risk factors of depression such as sleep and circadian rhythm disturbances.

# Assessment of sleepiness, fatigue, and depression among Gulf Cooperation Council commercial airline pilots

Tareq M. Aljurf<sup>1</sup> • Awad H. Olaish<sup>1</sup> • Ahmed S. BaHammam<sup>1</sup>

## Abstract

**Purpose** No studies have assessed the prevalence of fatigue, depression, sleepiness, and the risk of obstructive sleep apnea (OSA) among commercial airlines pilots in the Gulf Cooperation Council (GCC). **Methods** This was a quantitative cross-sectional study conducted among pilots who were on active duty and had flown during the past 6 months for one of three commercial airline companies. We included participants with age between 20 and 65 years. Data were collected using a predesigned electronic questionnaire composed of questions related to demographic information in addition to the Fatigue Severity Scale (FSS), the Berlin Questionnaire, the Epworth Sleepiness Scale (ESS), and the Hospital Anxiety and Depression Scale (HADS). **Results** The study included 328 pilots with a mean age  $\pm$  standard deviation of  $41.4 \pm 9.7$  years. Overall, 224 (68.3%) pilots had an FSS score  $\geq 36$  indicating severe fatigue and 221 (67.4%) reported making mistakes in the cockpit because of fatigue. One hundred and twelve (34.1%) pilots had an ESS score  $\geq 10$  indicating excessive daytime sleepiness and 148 (45.1%) reported falling asleep at the controls at least once without previously agreeing with their colleagues. One hundred and thirteen (34.5%) pilots had an abnormal HADS depression score ( $\geq 8$ ), and 96 (29.3%) pilots were at high risk for OSA requiring further assessment. **Conclusion** Fatigue, sleepiness, risk of OSA, and depression are prevalent among GCC commercial airline pilots. Regular assessment by aviation authorities is needed to detect and treat these medical problems.



# Reflecting on the Germanwings Disaster: A Systematic Review of Depression and Suicide in Commercial Airline Pilots

Terouz Pasha<sup>1\*</sup> and Paul R. A. Stokes<sup>2</sup>

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**Background:** The 2015 Germanwings Flight 9525 disaster, in which 150 people were killed after the co-pilot may have intentionally crashed the plane in a suicide attempt, highlights the importance of better understanding the mental health of commercial airline pilots. However, there have been few systematic reviews investigating the topic of mental health in commercial aviation. This systematic review aims to identify the types and prevalence of mental health disorders that commercial airline pilots experience with a focus on mood disorders and suicide risk. **methods:** A systematic literature search was performed using PubMed, EMBASE, and PsycINFO databases. Eligible studies were assessed and data was extracted and analyzed. **Results:** 20 studies were identified. The prevalence of depression experienced by commercial airline pilots in this review ranged from 1.9% to 12.6%. Factors that negatively impacted the mental health of pilots included substance abuse, experiencing verbal or sexual abuse, disruption in sleep circadian rhythms and fatigue. **Discussion:** This systematic review identifies that commercial airline pilots may experience depression at least as frequently as the general population. Commercial airline pilots experience occupational stressors, such as disrupted circadian rhythms and fatigue which may increase risks of developing mood disorders. Most studies identified in this review were cross-sectional in nature with substantial limitations. There is a clear need for further higher quality longitudinal studies to better understand the mental health of commercial airline pilots.

## RESEARCH ARTICLE

# Flying Into Depression

## Pilot's Sleep and Fatigue Experiences Can Explain Differences in Perceived Depression and Anxiety Associated With Duty Hours

Anna Donnlá O'Hagan, Msc<sup>1</sup>, Johann Issartel, PhD<sup>1</sup>, Alan Nevill, PhD<sup>2</sup>, and Giles Warrington, PhD<sup>3</sup>

**Abstract:** A growing body of evidence suggests long work hours adversely affect mental health across a variety of domains. Mental health issues have been found to negatively affect work performance. This finding was highlighted in the aviation industry by the 2015 Germanwings incident in which 150 people died. Further investigation into work hours and their associated factors (e.g., demographic characteristics and experiences of sleep and fatigue in the cockpit) contributing to mental health issues among pilots is warranted. A cross-sectional survey investigating attitudes and experiences of fatigue was developed and distributed to commercial airline pilots. Results found pilots who reported typically spending longer hours on duty per week were twice as likely to report feeling depressed or anxious. Pilots' experiences of job-related sleep disturbance and fatigue may explain why pilots who typically spend long hours on duty each week are more likely to report feeling depressed or anxious.

No other industry in the United States has been under more direct stress and pressure since 9/11 and we know that our members are carrying that stress.

Airline Pilots Association



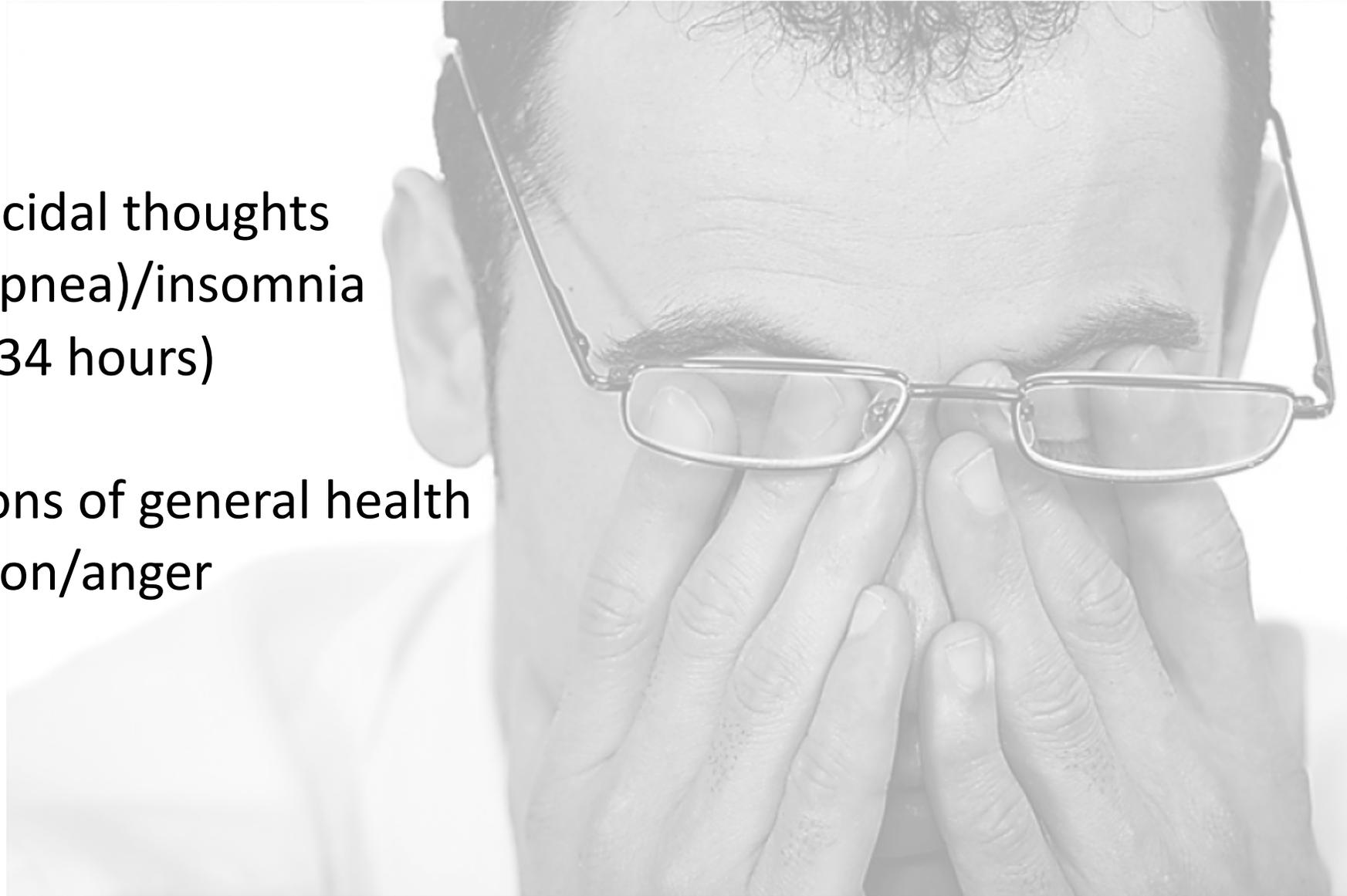
# AIR TRAVEL IN AIRLINE PASSENGER AND CREW BEHAVIOR.

## Separation as a stressor Data Glimpses



# Fatigue

- Depression and suicidal thoughts
- Sleepiness (sleep apnea)/insomnia
- Alcohol use (up to 34 hours)
- Need for recovery
- Declining perceptions of general health
- Irritability, frustration/anger



# Factors

- Stability of airlines
- Short and medium
- duty hours flights
- Emotional disturbances (especially home tension)
- Up to 40% of off task thinking.

# The Pilot's Mind

- Focus Creativity
- Tunneling, channeling, task over saturation
- Overlooking the obvious
- Maladaptive schemas (perfectionism)
- Self-blame
- Authority issues



# Sex Addiction and Pilots

## The Triple A's

Accessible "It's so easy."

Anonymity

Affordability

## Why Is It Too Easy? - Why is sex addiction easy as a Airline Pilot?

- There is no one around to look over your shoulder and know what you are doing.
- Due to long days and irregular hours it's easy to find oneself in HALT, Hungry Angry Lonely Tired, and vulnerable to acting out.
- Being in hotels and having total privacy makes it easier to act out to fulfill your addiction with Porn, Sex workers, Acting out partners, Massage parlors etc.
- Being in a foreign country requires using different currency and is less likely to be tracked. Time zones and expense also make it more difficult to contact home (USA).

## Why Is It Too Easy? - Why is sex addiction easy as a Airline Pilot?

- WideBody Aircrafts in foreign cities will have up to 6 aircrafts with 12 cabin crew per aircraft staying in the same hotels. It's often a party atmosphere with drinking and acting out.
- As an addict who is away from home, it is easier to think you will never get caught, so it is easier to justify and believe your lies.
- Many crew members commute to other bases and have a crash pad at a crew base. This is also a party atmosphere with many people drinking and acting out.
- In a crash pad away from home leads to loneliness. It also puts tension between spouses and partners. This makes it easier to minimize, rationalize, and justify your actions. You feel entitled to act out. It is easy tell wife/partner you're working and create opportunities to act out.
- There is a lot of infidelity in the airlines. When you find people accepting of this behavior (whether they are sex addicts or just cheating), it helps you justify your behavior by thinking everybody is doing

# FOCUS

By: Daniel Goleman

**“Empathetic concern, then, is a double-edged feeling. Getting this bottom-up/top-down mix right has great implications. One cost of the frenetic stream of distractions we face today, some fear, is an erosion of empathy and compassion. The more distracted we are, the less we can exhibit attunement and caring.”**

"In his new, wise, and utterly approachable book, Dr. Siegel uses beautiful and often remarkable case histories to show us how we can change our minds, brains, relationships, and even the course of certain mental illnesses."

—NORMAN DOIDGE, M.D., author of *The Brain That Changes Itself*



# mindsight

THE NEW SCIENCE OF  
PERSONAL TRANSFORMATION

Daniel J. Siegel, M.D.

Foreword by DANIEL GOLEMAN, author of *Emotional Intelligence*

***“Response flexibility harnesses the power of the middle prefrontal region to put a temporal space between input and action. This ability to pause before responding is an important part of emotional and social intelligence.”***

DANIEL  
GOLEMAN

Bestselling Author of *Emotional Intelligence*

FOCUS

The Hidden Driver  
of Excellence

**“The decision rules derived from our life experiences reside in subcortical neural networks that gather, store and apply algorithms from every event in our lives – creating our inner rudder. The brain harbors our deepest sense of purpose and meaning in these subcortical regions – areas connected poorly to the verbal areas of the neocortex, but richly to the gut. [...]**

**This inner radar holds the key to managing what we do – and just as important, what we don’t do. This internal control mechanism makes all the difference between a life well lived and one that falters.”**

DANIEL  
GOLEMAN

Bestselling Author of *Emotional Intelligence*

FOCUS

The Hidden Driver  
of Excellence

**“Full focus gives us a potential doorway into flow.”**

# The Black Hole – Addiction Interaction

## Substances

- alcohol
- cocaine
- amphetamines
- tobacco
- depressants

## Processes/ Appetites

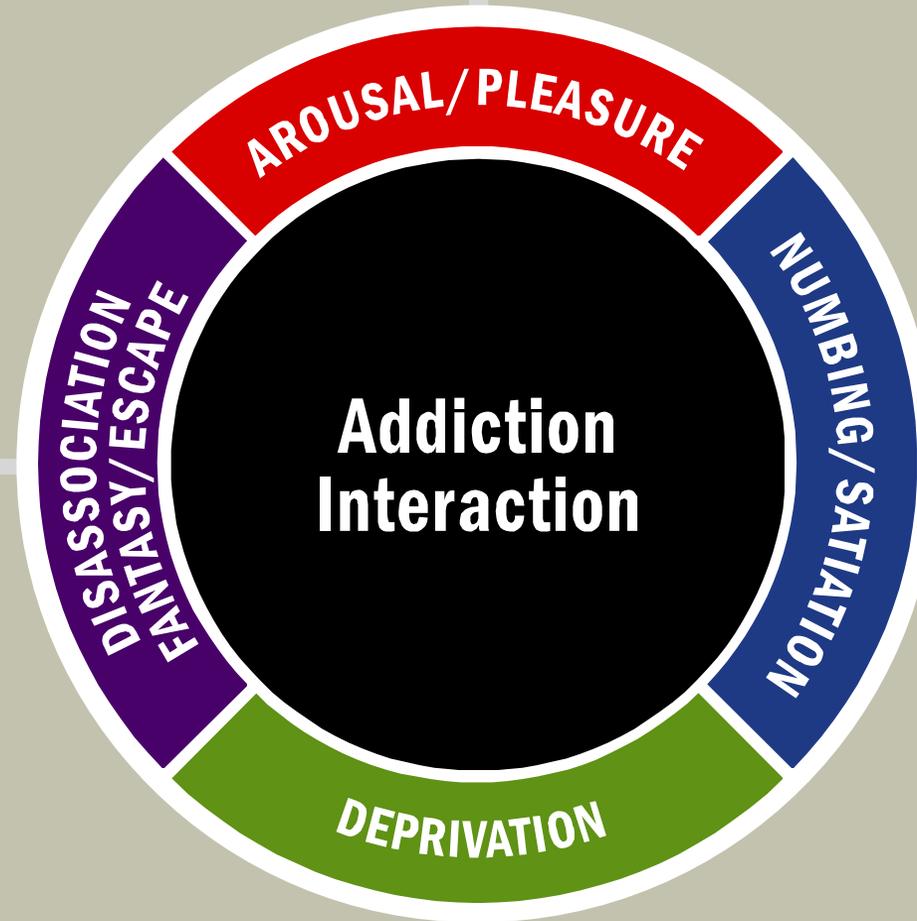
- food
- sex and love
- work
- money
- exercise

## Core Affect States

- despair
- intensity/risk
- self-loathing
- shame
- misery
- rage

## Relationships

- co-dependency
- co-sex addiction
- traumatic bonding
- love addiction
- romance/  
limerence



# The Black Hole – Addiction Interaction

## Substances

- alcohol
- cocaine
- amphetamines
- tobacco
- depressants

## Processes/ Appetites

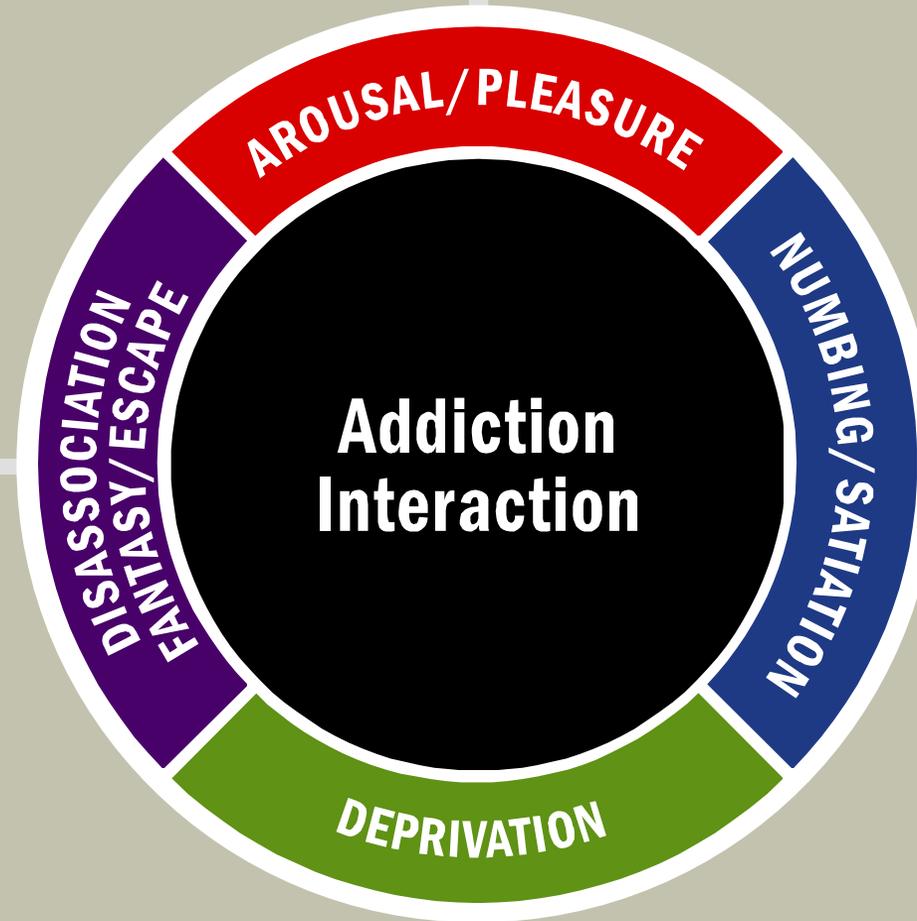
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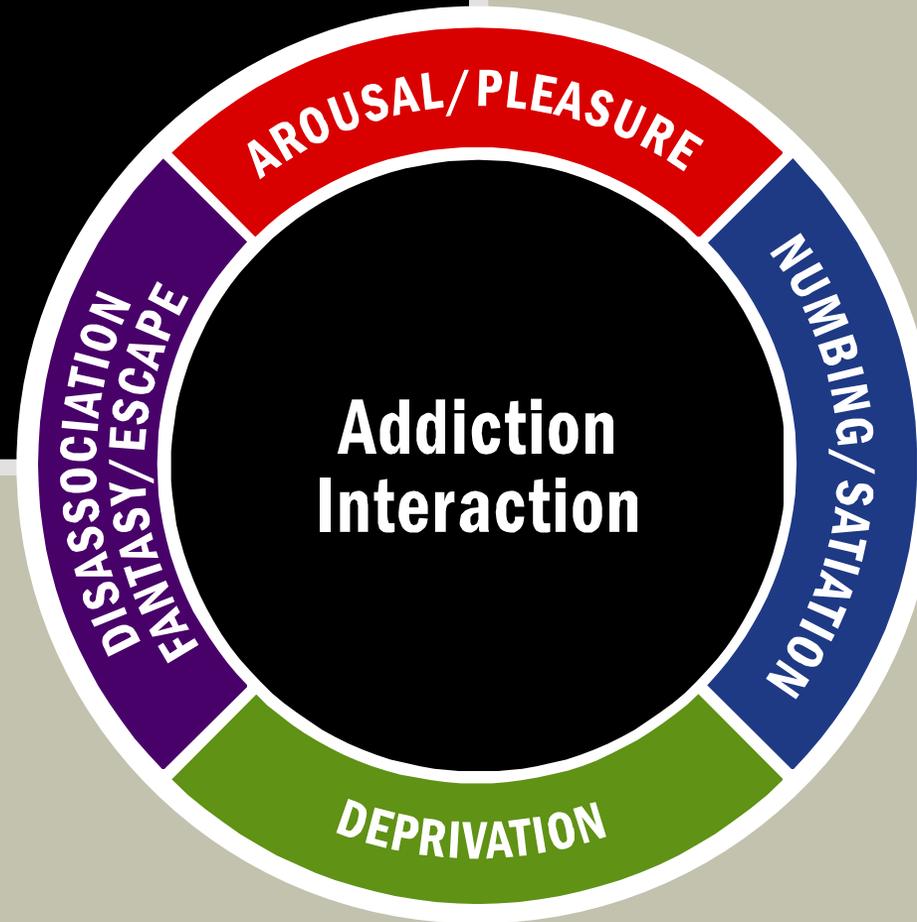
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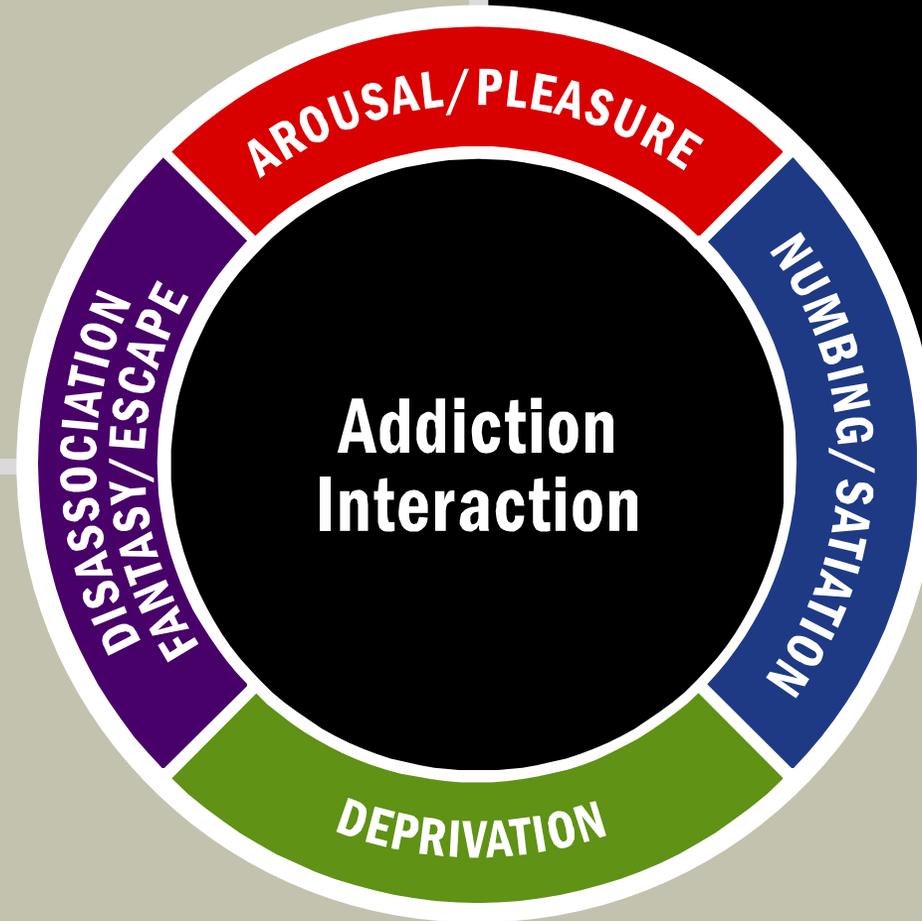
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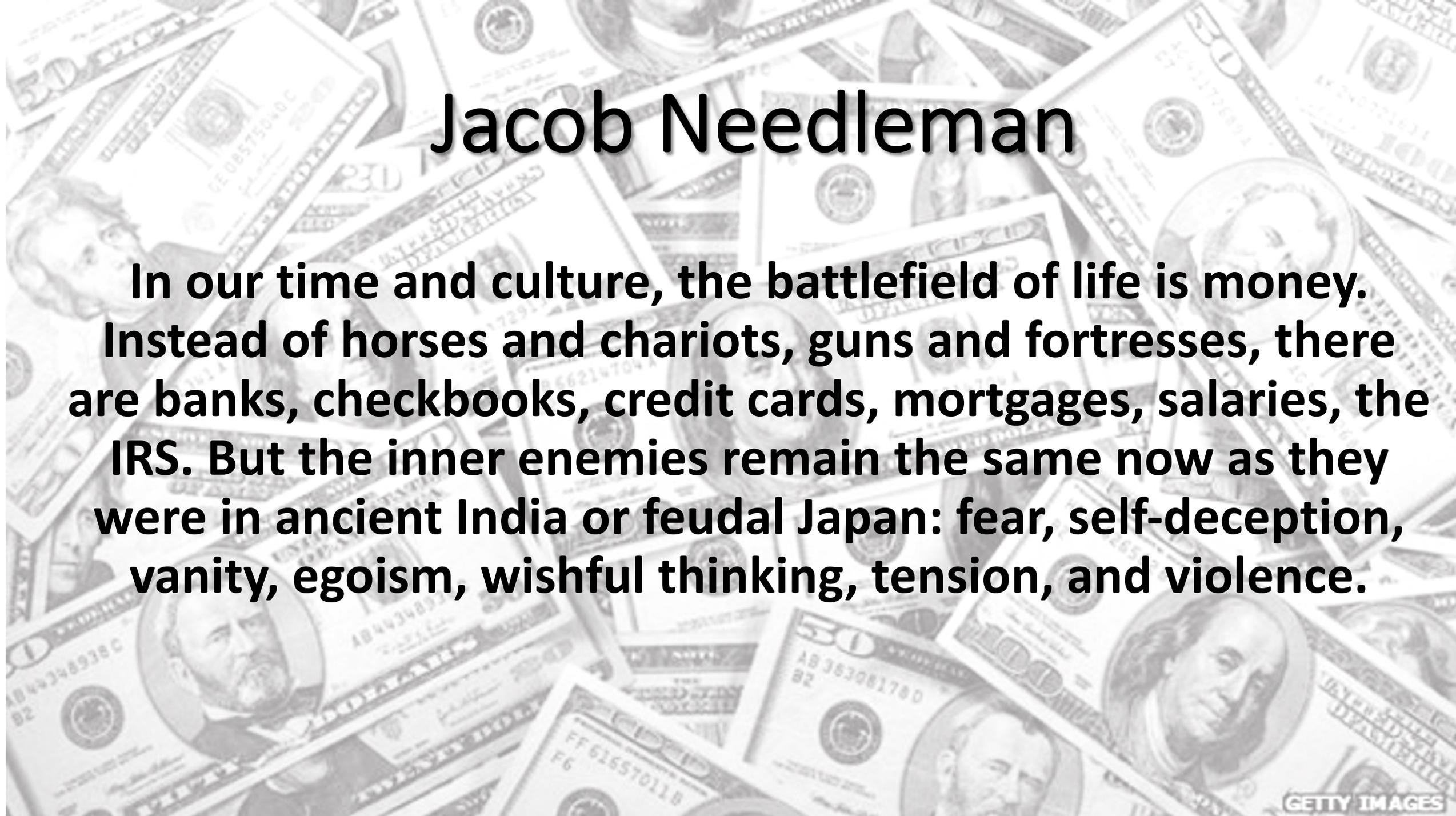
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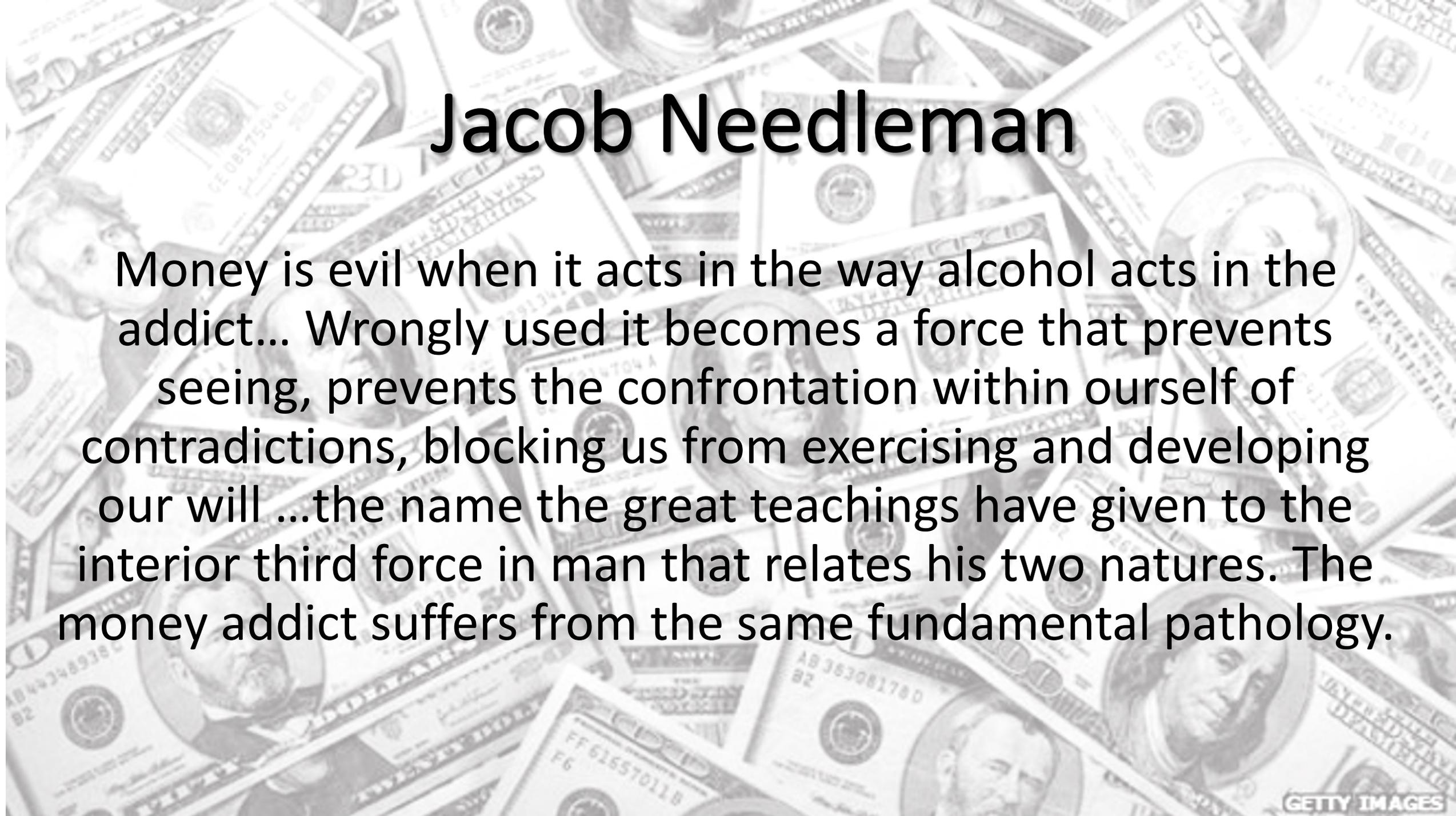
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The background of the image is a dense, overlapping pattern of US dollar bills, including \$50, \$100, and \$200 denominations. The bills are slightly faded and oriented in various directions, creating a textured, monochromatic backdrop. The text is overlaid on this background.

# Jacob Needleman

**In our time and culture, the battlefield of life is money. Instead of horses and chariots, guns and fortresses, there are banks, checkbooks, credit cards, mortgages, salaries, the IRS. But the inner enemies remain the same now as they were in ancient India or feudal Japan: fear, self-deception, vanity, egoism, wishful thinking, tension, and violence.**

The background of the slide is a dense, overlapping pattern of US dollar bills, including \$50 and \$100 denominations, rendered in a light, semi-transparent grey. The bills are scattered across the entire frame, creating a textured, monochromatic backdrop for the text.

# Jacob Needleman

Money is evil when it acts in the way alcohol acts in the addict... Wrongly used it becomes a force that prevents seeing, prevents the confrontation within ourself of contradictions, blocking us from exercising and developing our will ...the name the great teachings have given to the interior third force in man that relates his two natures. The money addict suffers from the same fundamental pathology.

# The Black Hole – Addiction Interaction

## Substances

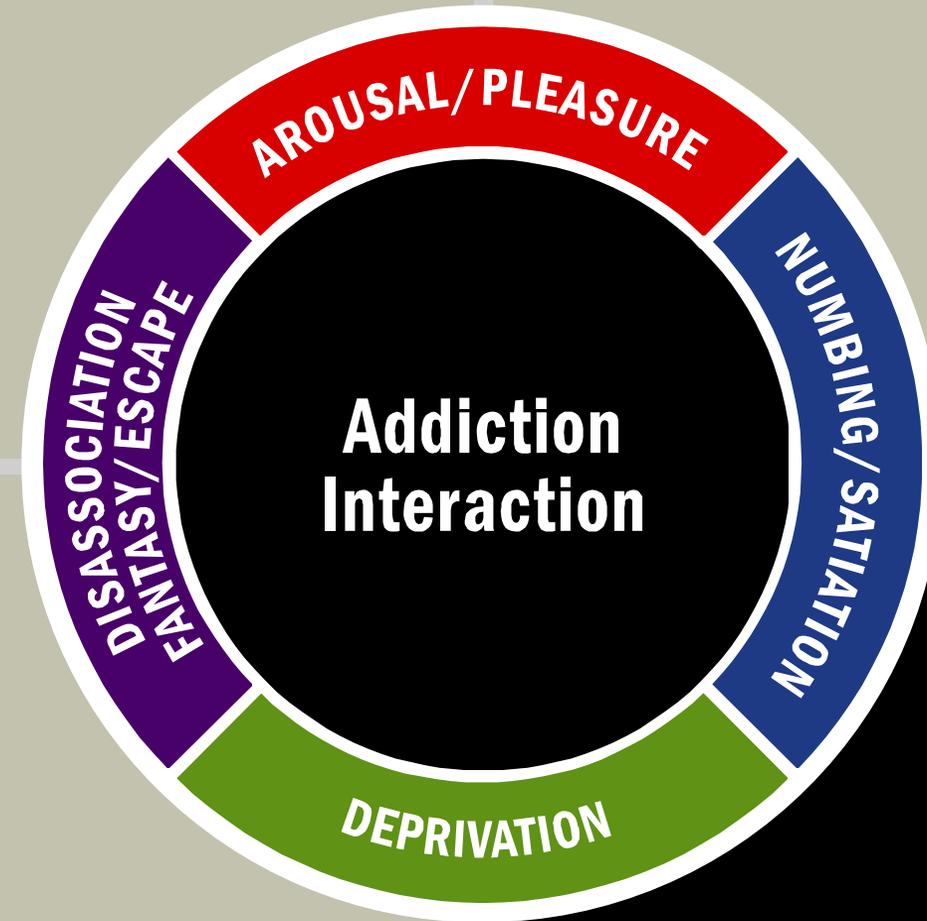
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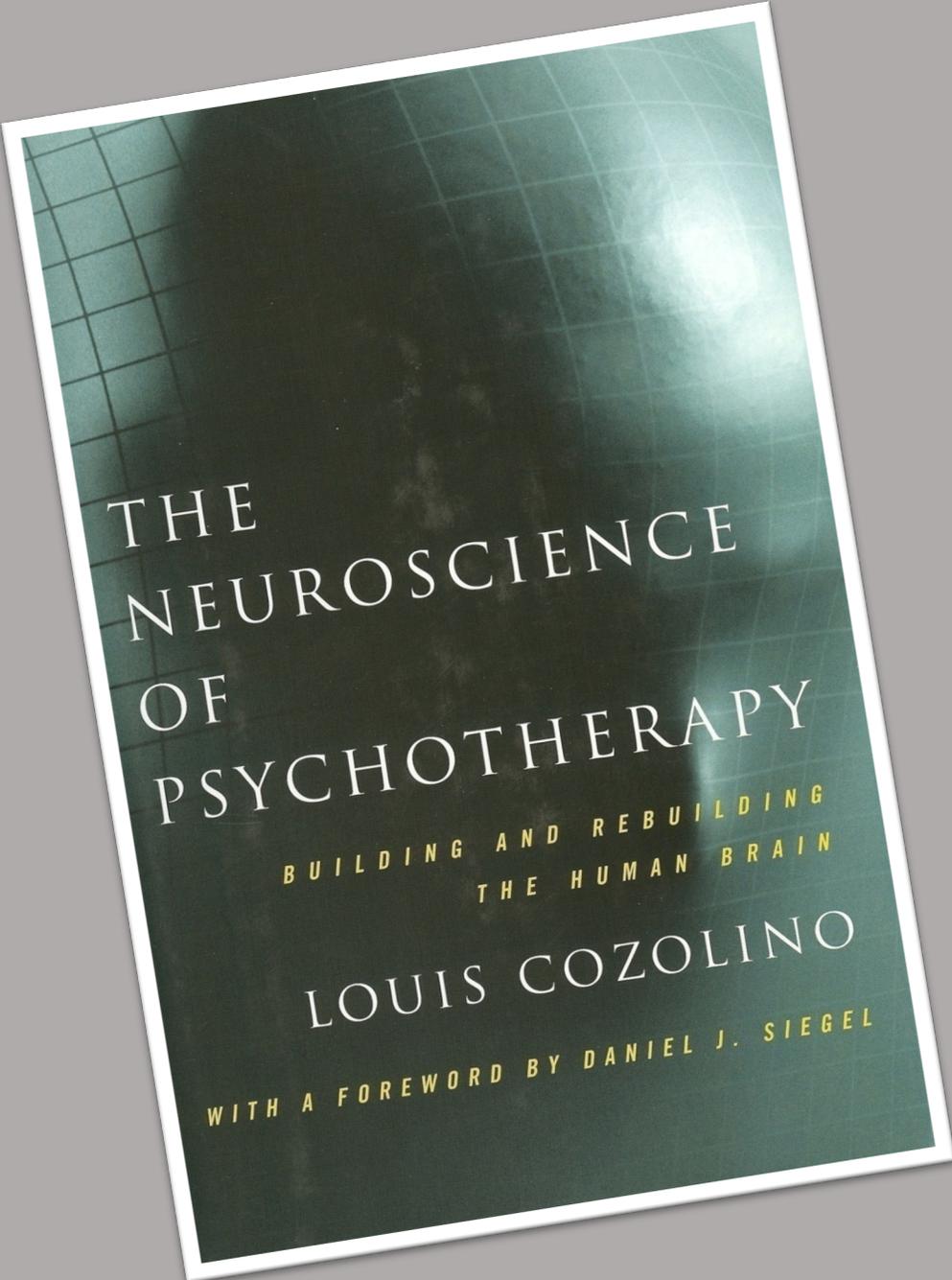
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## Relationships

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THE  
NEUROSCIENCE  
OF  
PSYCHOTHERAPY

BUILDING AND REBUILDING  
THE HUMAN BRAIN

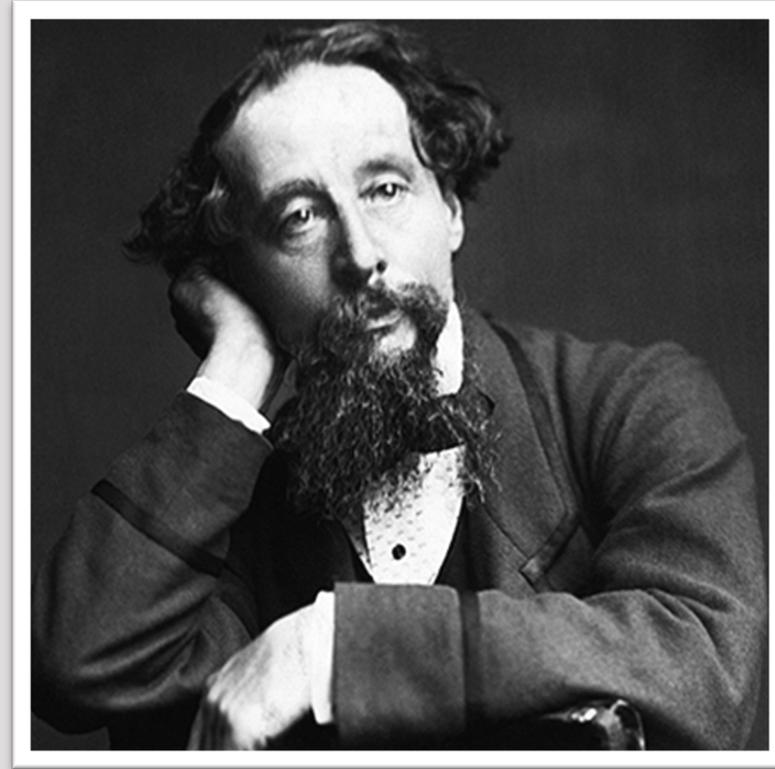
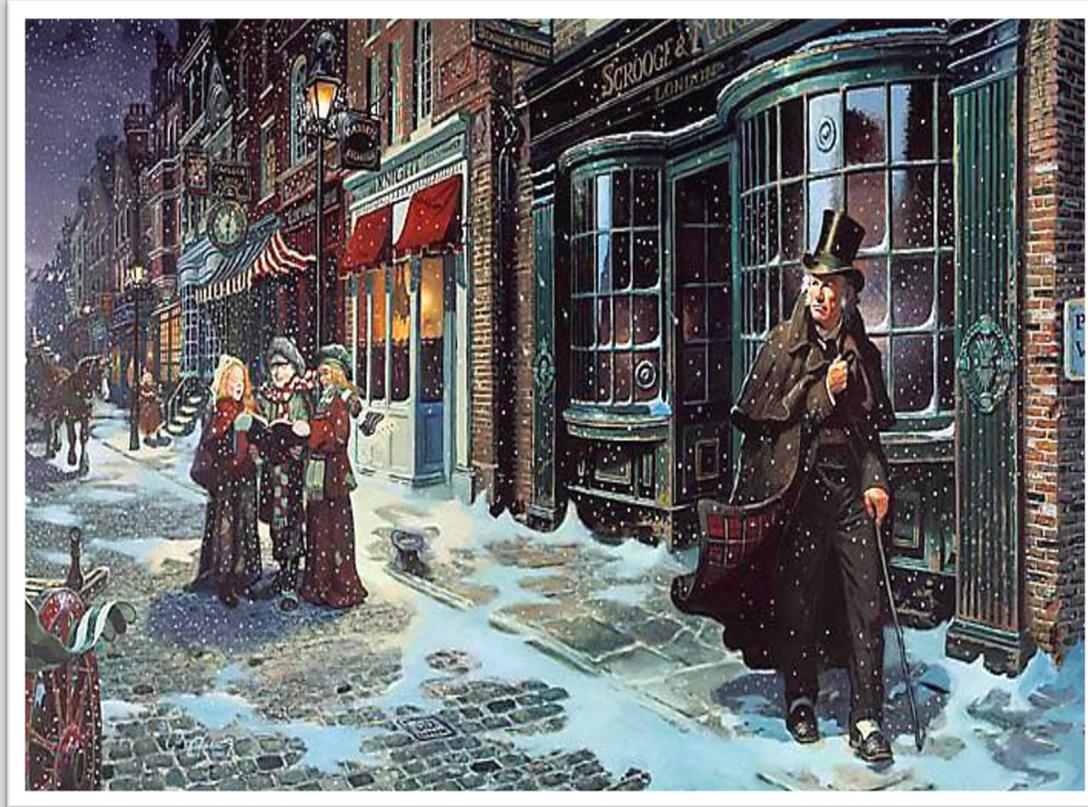
LOUIS COZOLINO

WITH A FOREWORD BY DANIEL J. SIEGEL

# THE GRIEVANCE STORY

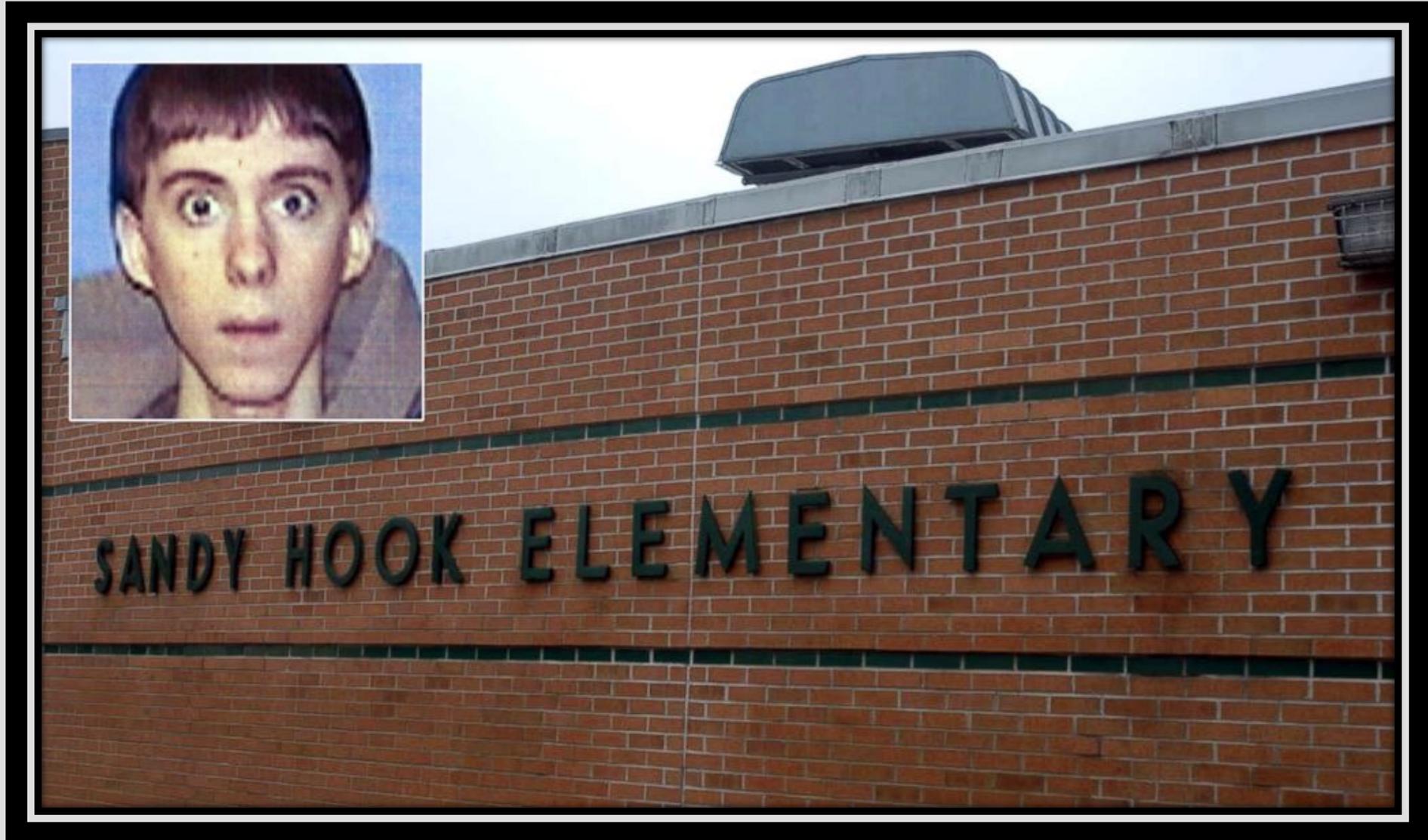
- 
- Based on perceived or actual betrayal
  - Alliance with self-deception
  - Negative intimacy
  - Turn to the dark side
  - Entitlement
  - Addictive affect and intensity
  - Undermines resilience

# *A Christmas Carol*



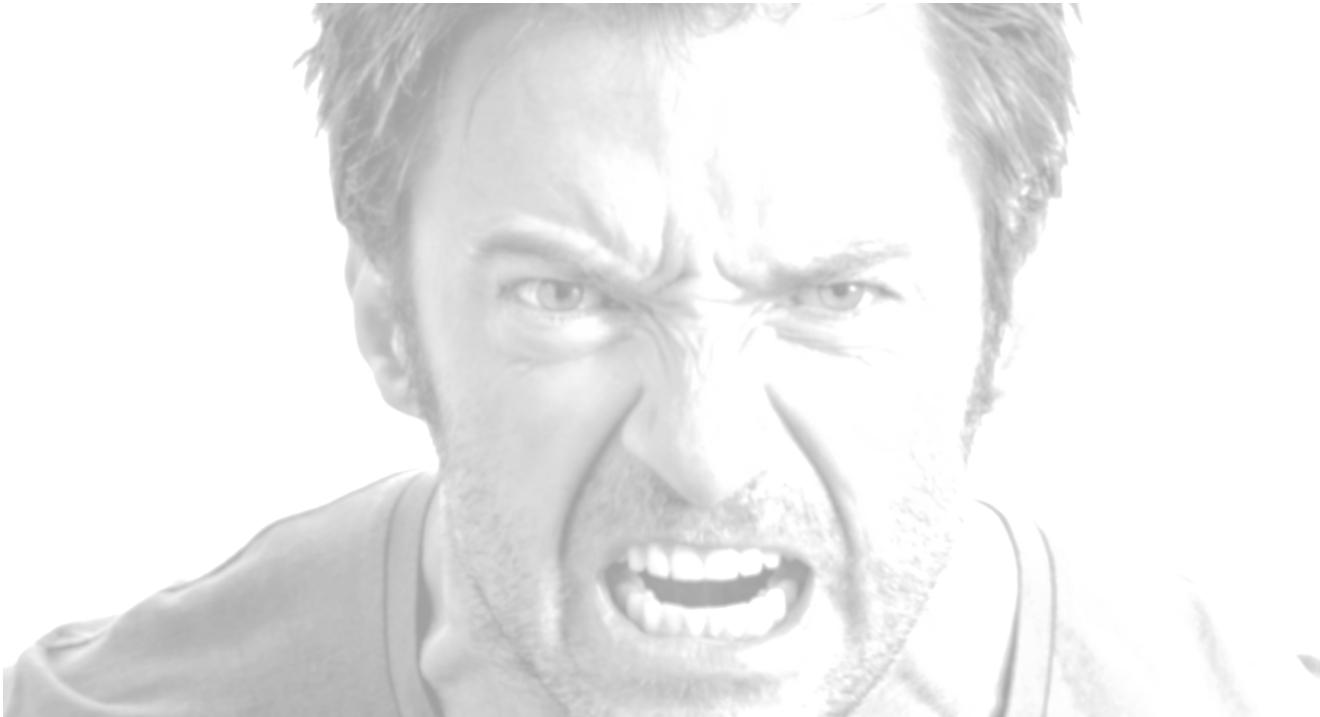
Charles Dickens

# Adam Lanza

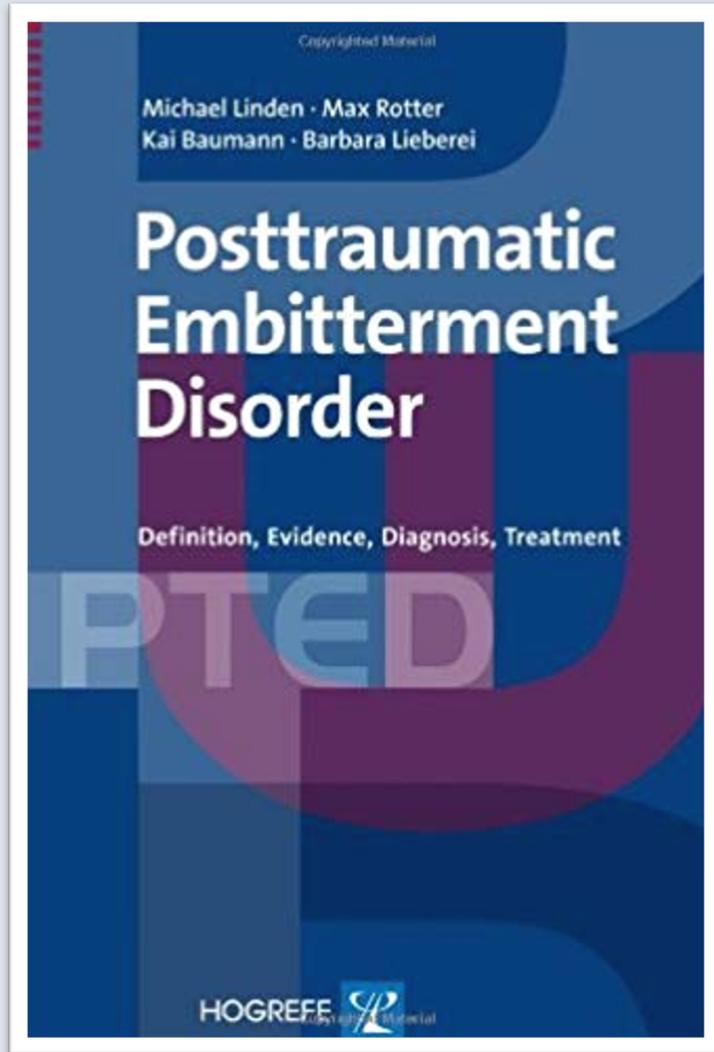


We are in the throes of an epidemic of pathological anger, rage and embitterment, both here in this country and elsewhere.

-Stephen A. Diamond, Ph.D.

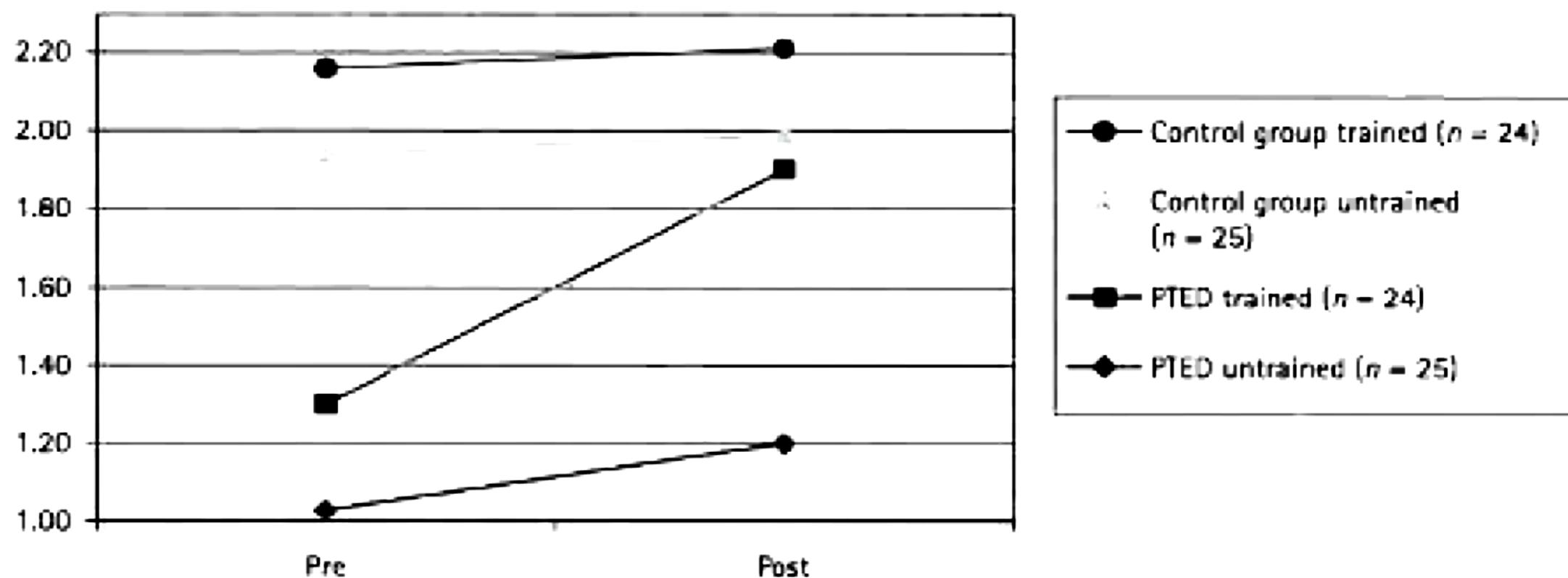


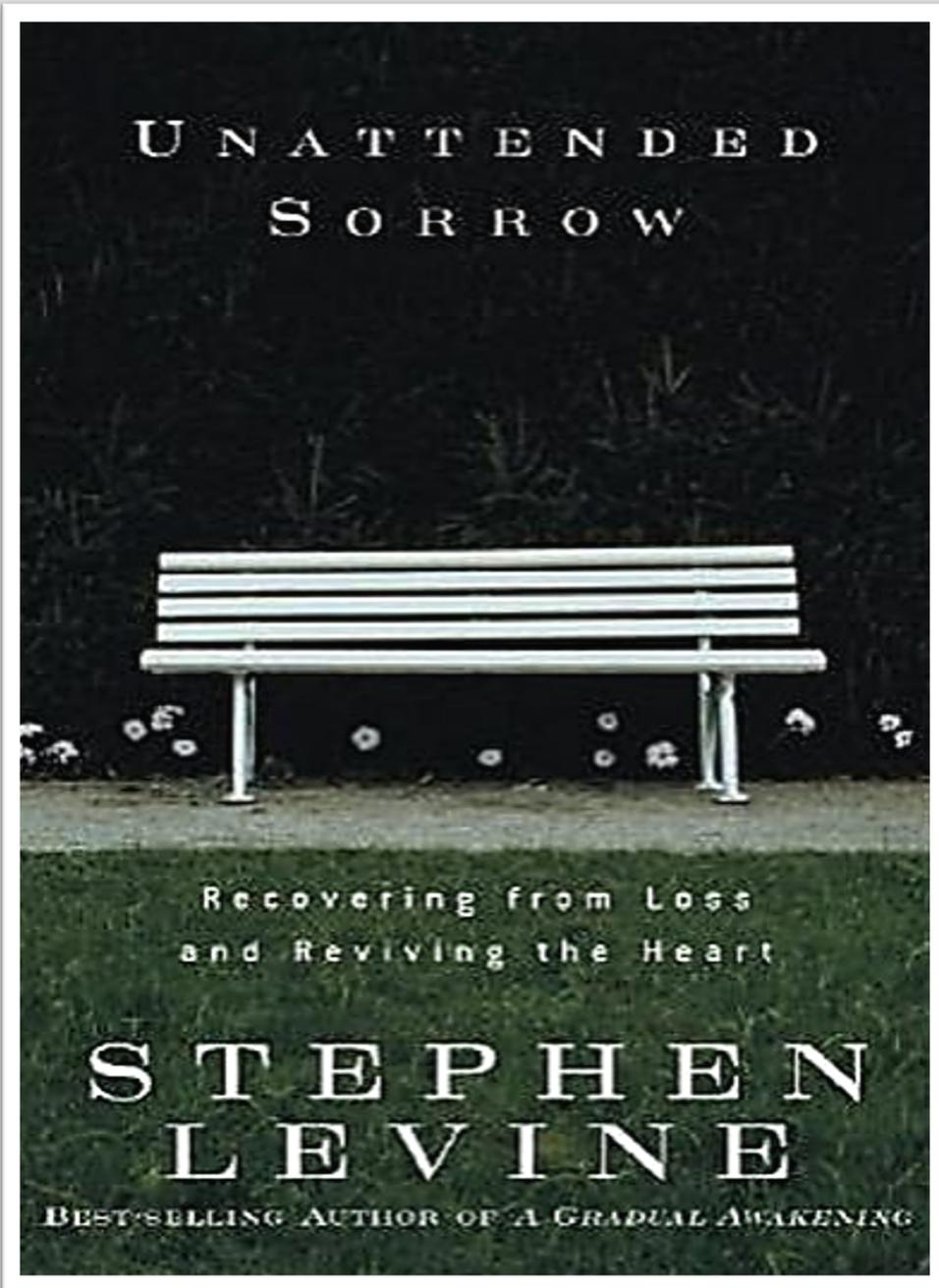
# 9 Dimensions to Assess Cognitive and Emotional Wisdom Expertise



1. Change of perspective
2. Empathy
3. Perception and acceptance of emotions
4. Serenity
5. Factual knowledge and procedural knowledge
6. Contextualism
7. Value relativism
8. Uncertainty acceptance
9. Long-term perspective

*Figure 12.* Mean total scores of each group for the pre- and posttest in the personal problem condition





“In the world within and around us, heaven and hell are constantly warring for our approval. The war-torn heart longs for a moment’s peace. The less we make peace with our pain, the more we tend to make war on others.”

“Let us not look back in anger,  
nor forward in fear, but around in awareness.”

– *James Thurber*





A PUBLICATION OF THE AMERICAN PSYCHOLOGICAL ASSOCIATION • NOVEMBER 2018

# monitor on psychology

GST# R127612802

## 2019 **TRENDS REPORT**

OUR ANNUAL GUIDE TO CHANGES  
AHEAD FOR PSYCHOLOGISTS  
IN PATIENT CARE, RESEARCH,  
TECHNOLOGY, SOCIAL  
JUSTICE AND MORE PAGE 40

**New Assets  
for Campus  
Mental Health**

PAGE 24

**CE: Helping  
Patients Through  
Prolonged Grief**

PAGE 34

**Suicide Research**

PAGE 88



Table 1

Items included in symptom-diagnostic tests

Symptom (Item)	PGD		CG		PCBD		ICD-11	
	Category	Item	Category	Item	Category	Item	Category	Item
Yearning	A	1	A	1	A	1, 2	A	1
Preoccupation	A	2	B	1	A	3, 4	A	2
Part of yourself died	B	1			B	11	B	2
Disbelief; Trouble accepting death	B	2	B	2	B	1	B	1
Avoidance of reminders	B	3	B	8	B	6		
Hard to trust others	B	4	B	5	B	8		
Anger; Bitterness	B	5	B	4	B	4	B	3
Difficulty moving on	B	6			B	12	B	5
Numbness	B	7	B	3	B	2		
Life empty, meaningless, unfulfilling	B	8	A	2	B	10		
Stunned	B	9	B	3	B	2		
Loneliness			A	2	B	9		
Survivor guilt			A	3	B	5	B	4
Suicidal ideation			A	3	B	7		
Inability to care			B	5				
Envious of others without loss			B	5				
Symptoms of deceased			B	6				
Hear or see deceased			B	6				
Memories upset you			B	7	B	3		
Drawn to places			B	8				

PGD – prolonged grief disorder test (original version), CG – complicated grief test, PCBD – persistent complex bereavement disorder test, ICD-11 – prolonged grief disorder test (ICD-11 proposed version)

[World Psychiatry](#). 2016 Oct; 15(3): 266–275.

Published online 2016 Sep 22. doi: [10.1002/wps.20348](https://doi.org/10.1002/wps.20348)

“Prolonged grief disorder” and “persistent complex bereavement disorder”, but not “complicated grief”, are one and the same diagnostic entity: an analysis of data from the Yale Bereavement Study

[Paul K. Maciejewski](#),<sup>1, 2, 3</sup> [Andreas Maercker](#),<sup>4</sup> [Paul A. Boelen](#),<sup>5, 6</sup> and [Holly G. Prigerson](#)<sup>1, 3</sup>

# The Black Hole – Addiction Interaction

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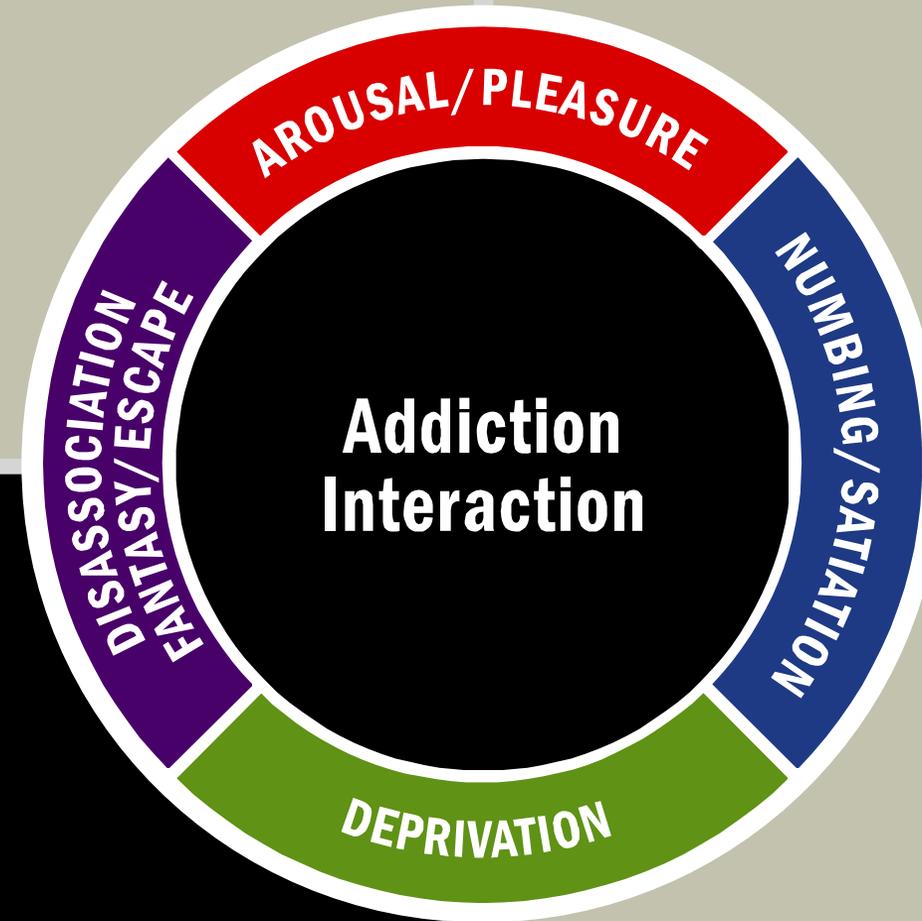
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“The addictive dependence on feelings of pain...”

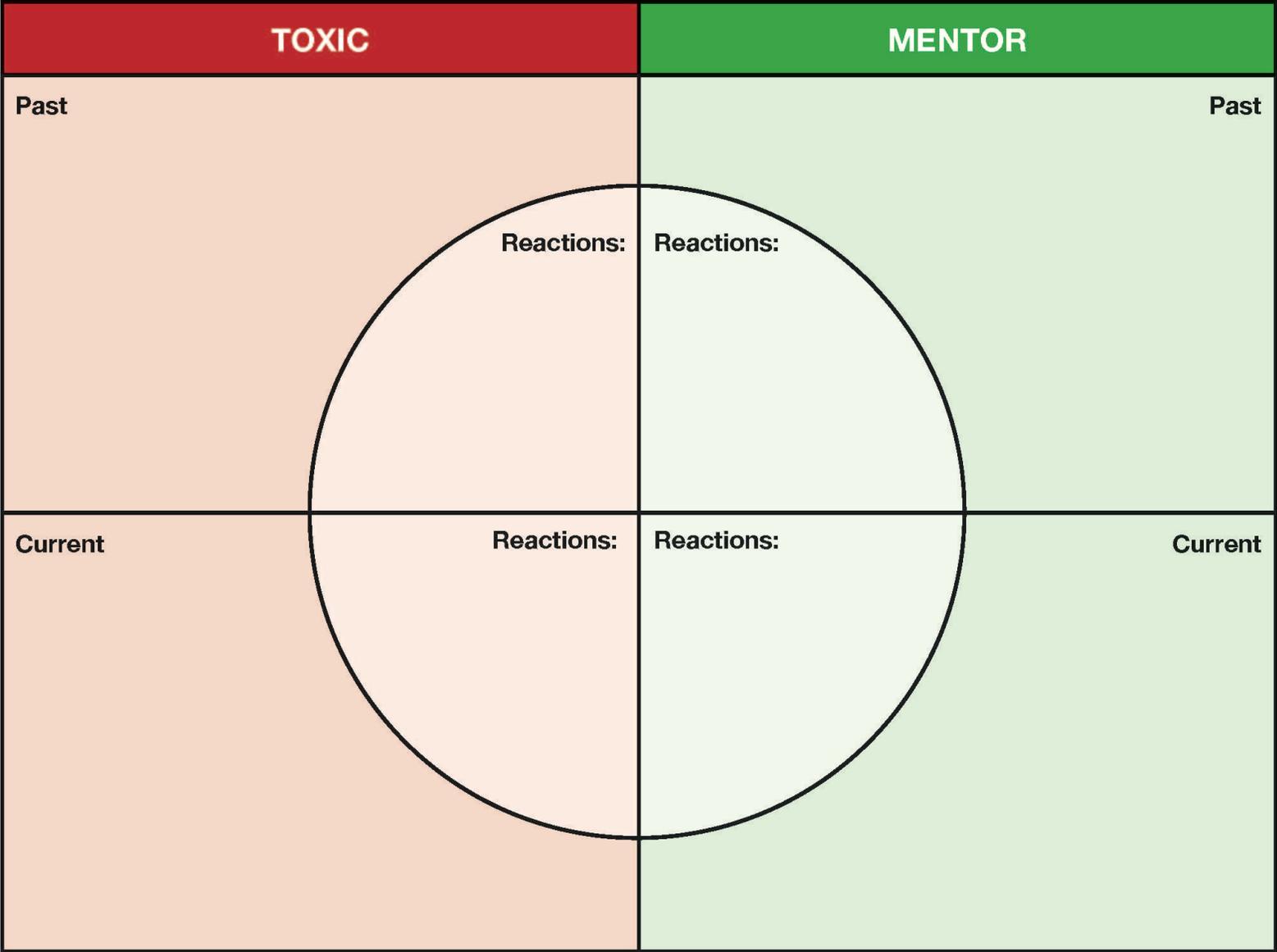


Alice Miller

The Drama of the Gifted Child

# Compulsive Attachment: Key Characteristics

- **Troubled people**
- **Hero and pathological giving**
- **High Intensity and Drama**
- **Boundary Collapse**
- **Impression Management**
- **Conflict Avoidance**



# Brain Problems

## Non-Use or Dysfunctional Wiring

- Lost or dormant

## Noisy Brain

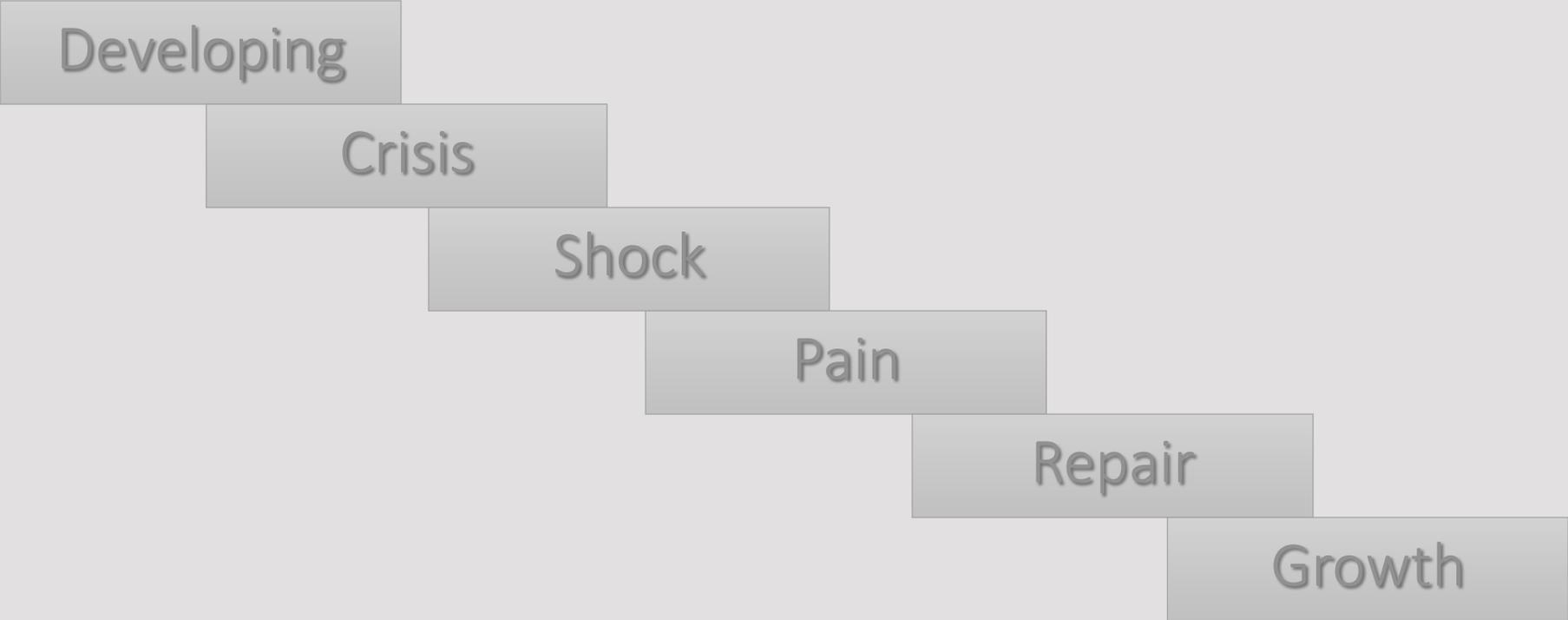
- Specific intentions cannot be maintained because of high arousal or irregular firing

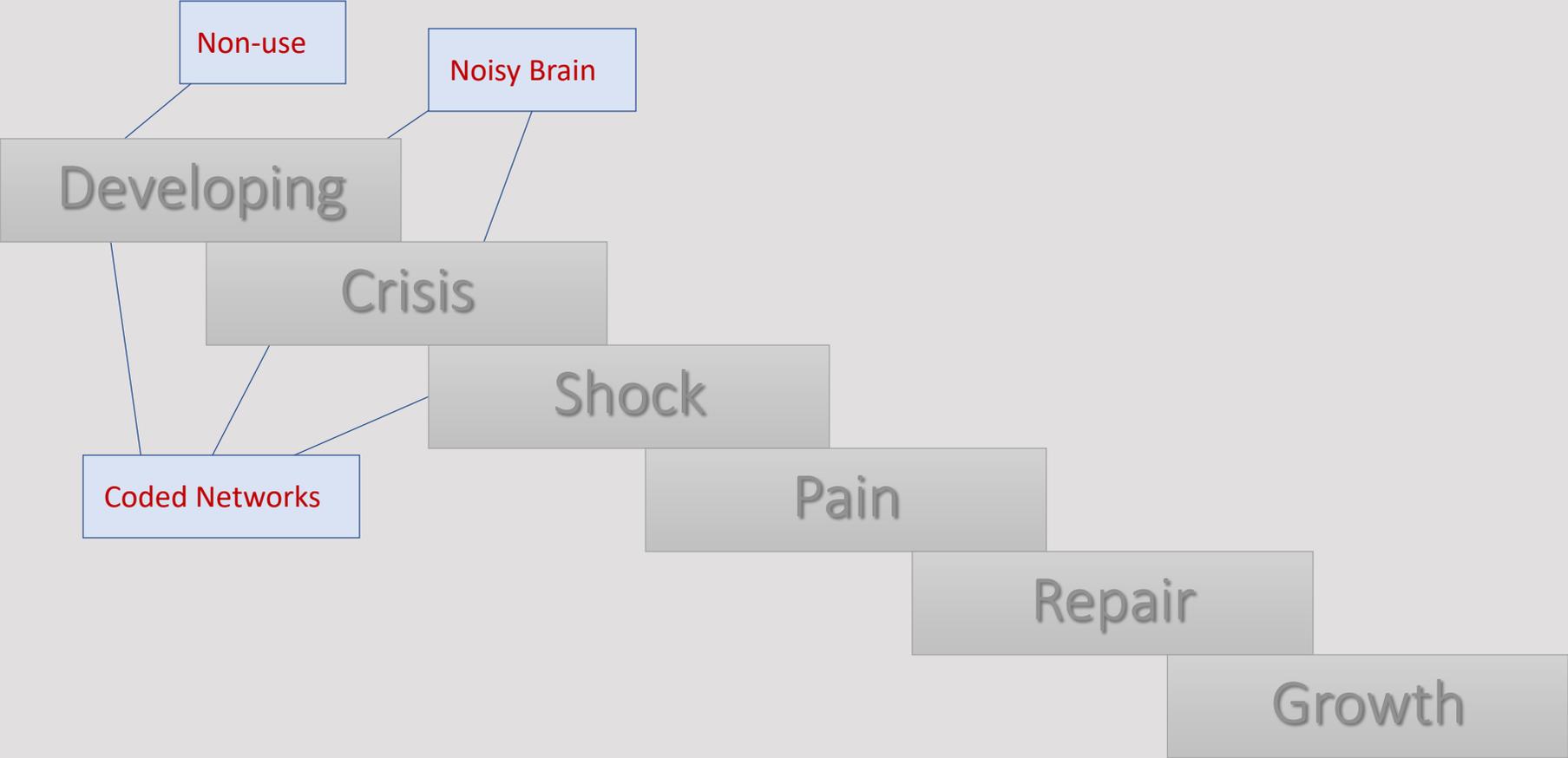
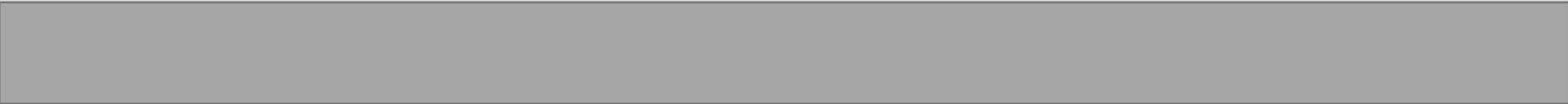
## Coded Networks

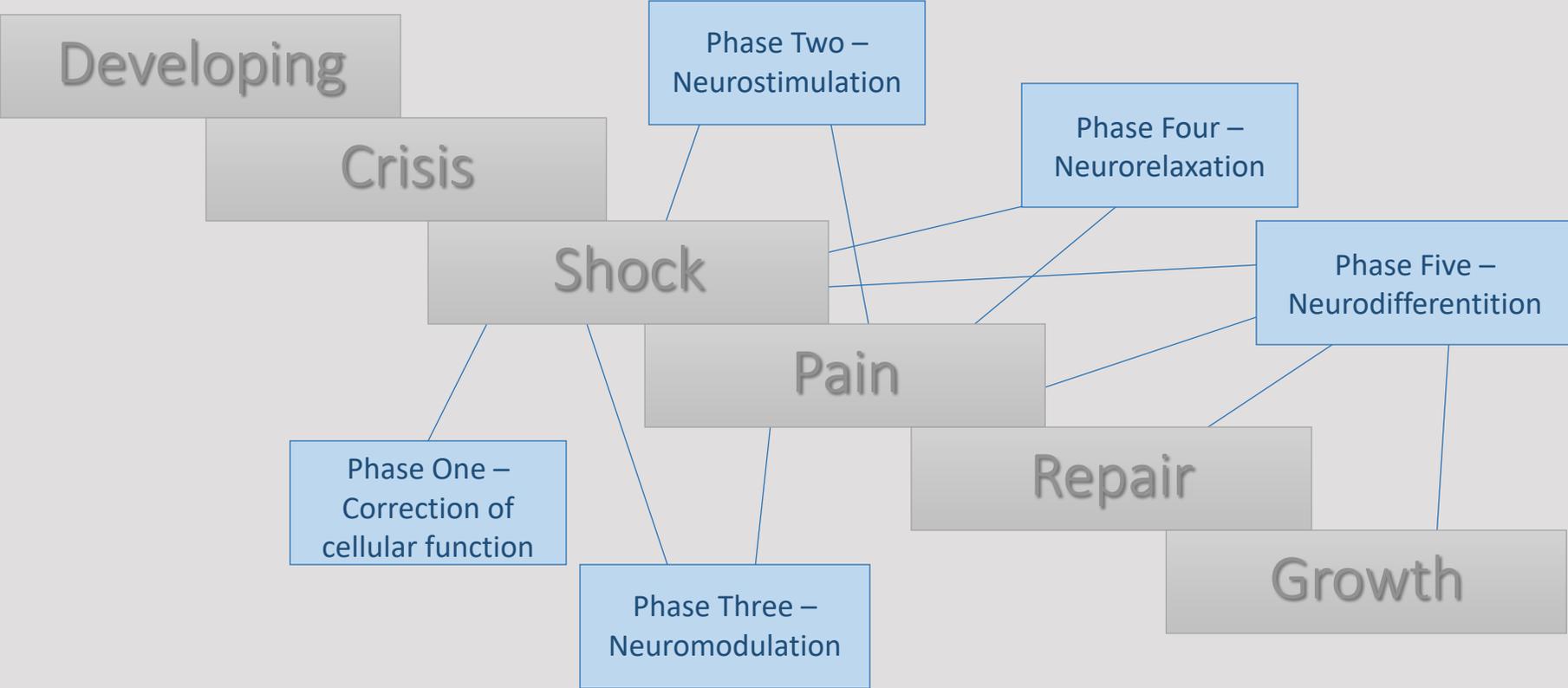
- Patterns of “self” thinking carried across neural networks in patterns we call “belief systems” or paradigms

# Regaining Focus- Traction in Therapy

- Phase One - Correction of cellular function – (toxins, foods, sugars, chemicals, stimulation)
- Phase Two - Neurostimulation – (processes, exercise, thoughts – designed to stimulate growth)
- Phase Three - Neuromodulation –
- a. sympathetic nervous system – concepts and interventions to reduce high arousal
  - b. parasympathetic nervous system – mindfulness tools to create calm. Also “social engagement” as part of soothing
- Phase Four - Neurorelaxation – brain catches up (sleep, energy stores and backed up or shelved processes)
- Phase Five - Neurodifferentiation and learning – process which allows patient to integrate knowledge and more effective coded networks

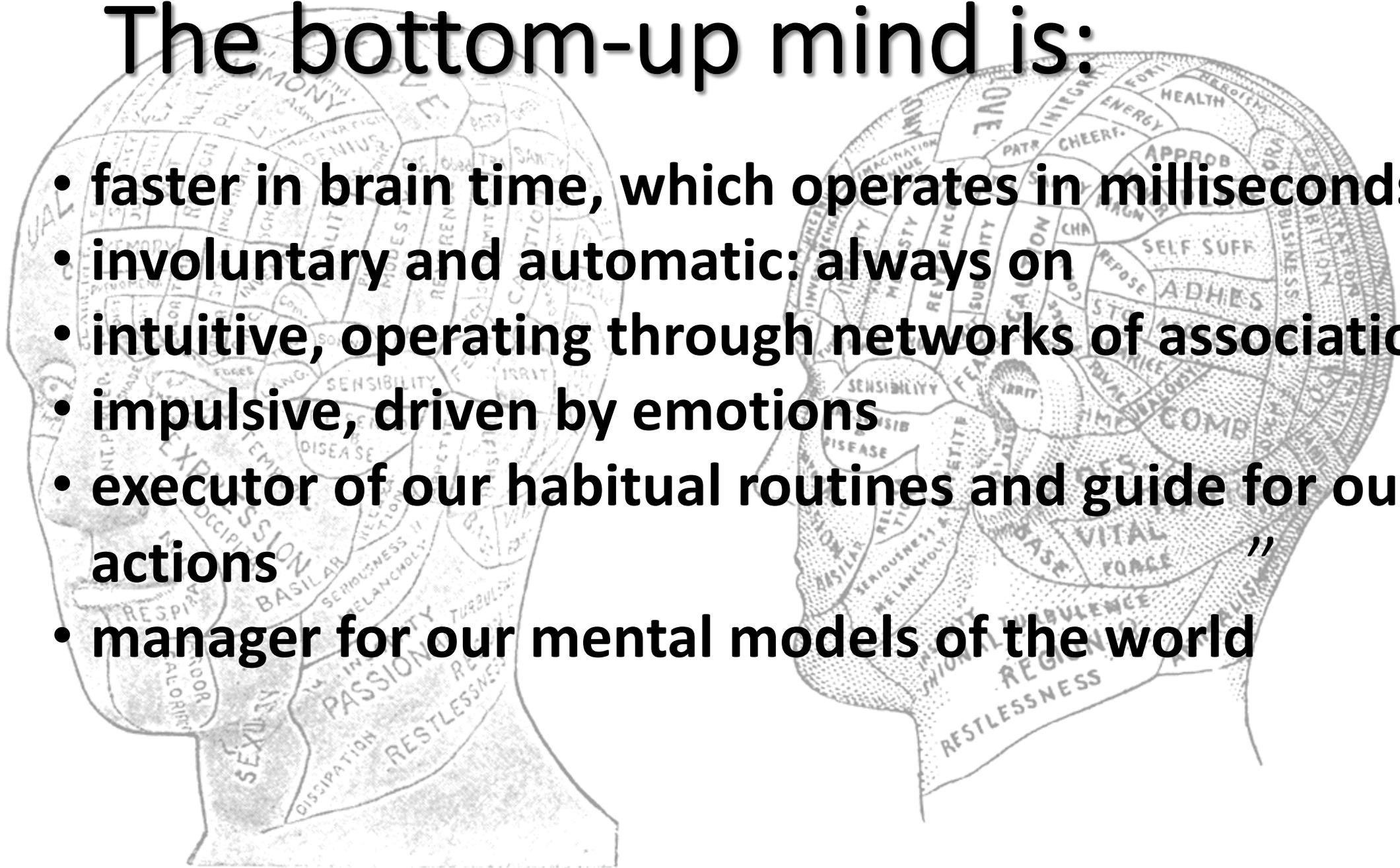






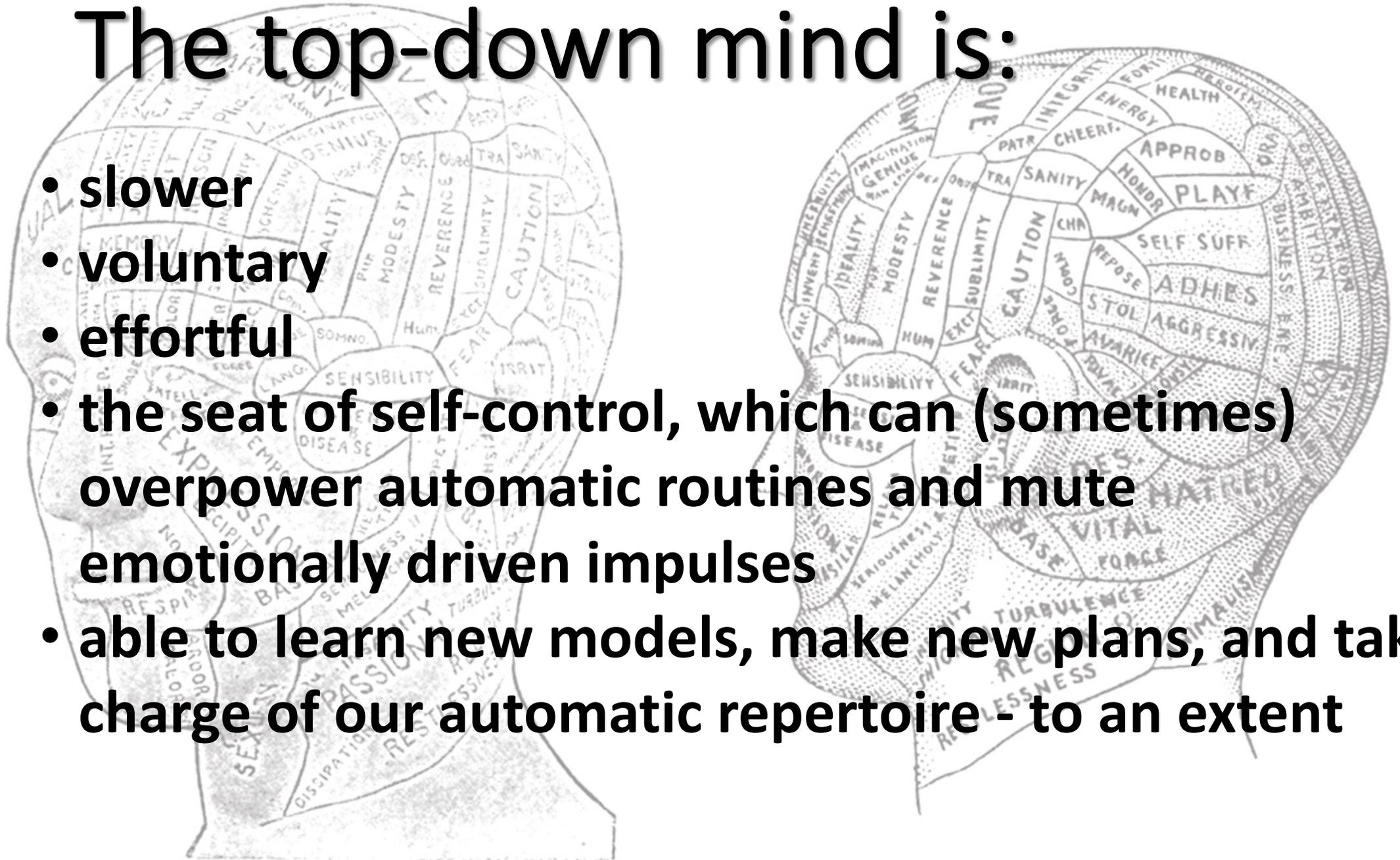
# The bottom-up mind is:

- faster in brain time, which operates in milliseconds
- involuntary and automatic: always on
- intuitive, operating through networks of association
- impulsive, driven by emotions
- executor of our habitual routines and guide for our actions
- manager for our mental models of the world



# The top-down mind is:

- slower
- voluntary
- effortful
- the seat of self-control, which can (sometimes) overpower automatic routines and mute emotionally driven impulses
- able to learn new models, make new plans, and take charge of our automatic repertoire - to an extent

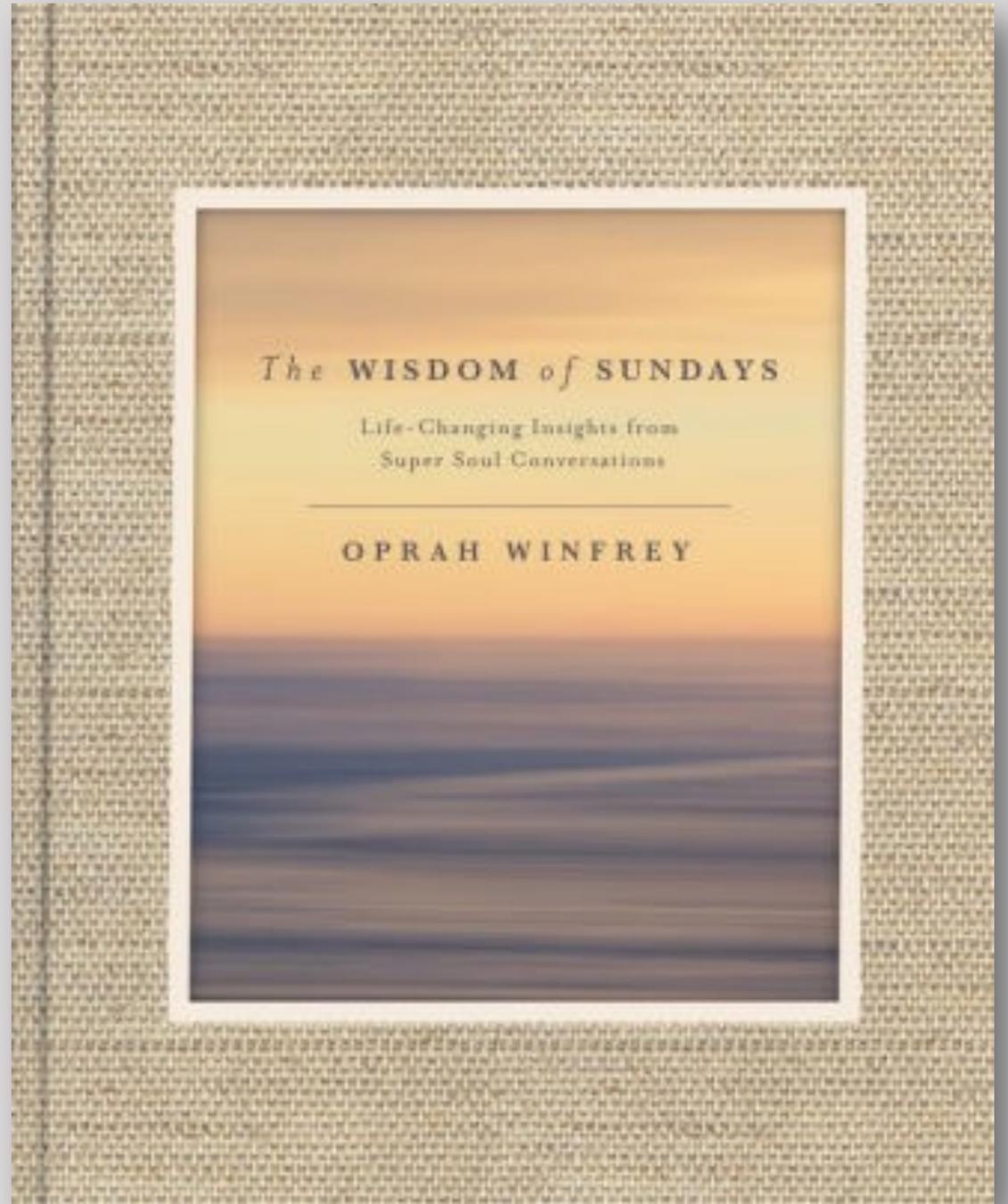






“The truth will set you free, but you have to endure the labor pains of birthing it.”

- Iyanla Vanzant



# Memory Maker 2

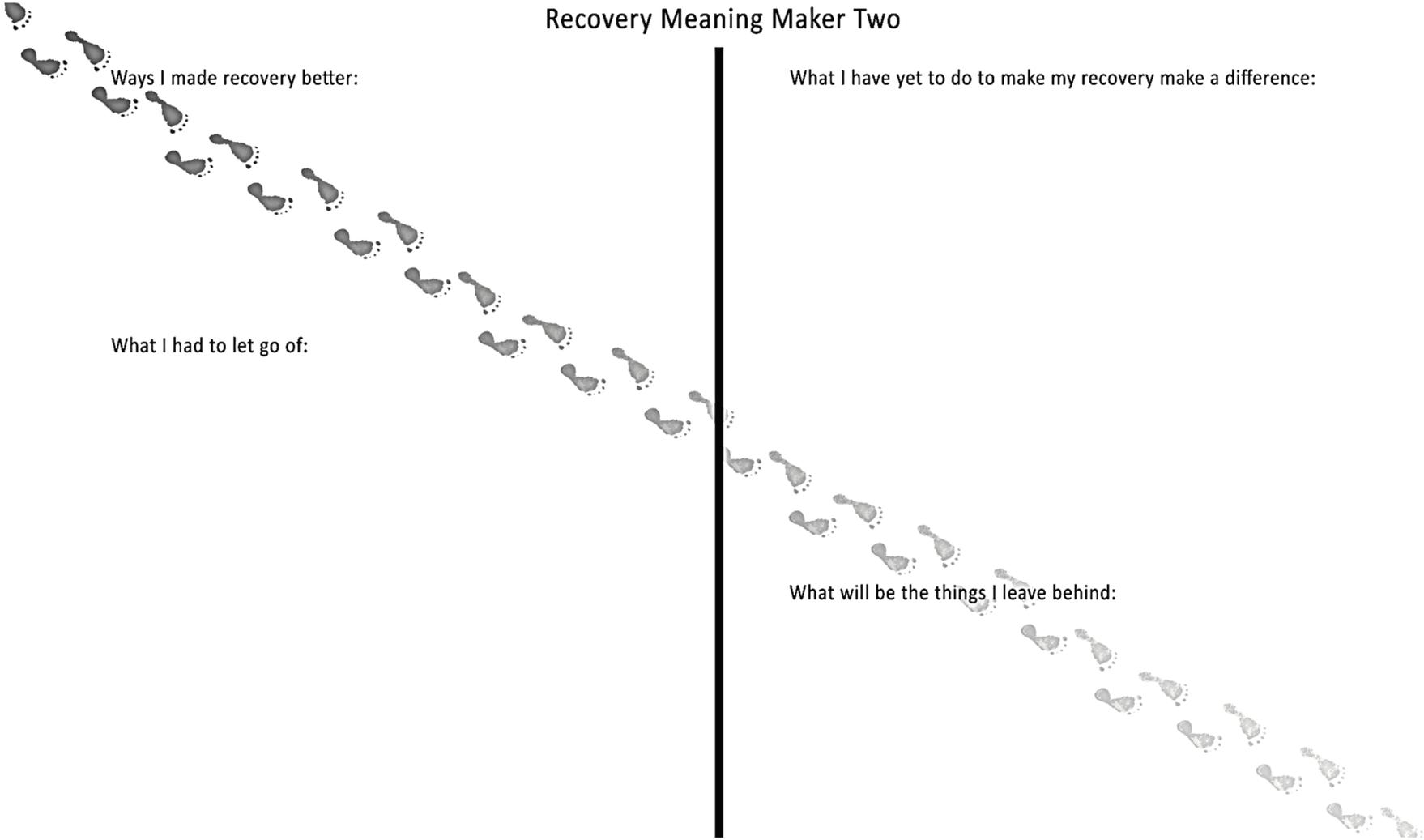
## Recovery Meaning Maker Two

Ways I made recovery better:

What I have yet to do to make my recovery make a difference:

What I had to let go of:

What will be the things I leave behind:





INTERNATIONAL PILOT PEER ASSIST COALITION



International Pilot Peer Assist Conference (IPPPAC) – October 25-26,  
2019

# WINGMAN TWO

## Pilot Profile and Job Vulnerabilities

October 25, 2019 -10:45 am – 12:00 pm

Dr. Patrick J. Carnes

