

DEFENCE MECHANISMS: A NOVEL
APPROACH TO MENTAL ILLNESS

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- Addresses the need for high quality theoretical research, and the current lack of balance between empirical and theoretical approaches in psychiatry and clinical psychology
 - Promotion
 - Guidelines
 - Assistance
 - “There is nothing so practical as a good theory.” James Clerk Maxwell
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Published Research Articles in the Course

In order of presentation; each is located at the end of the paper:

- Psychological Defense Mechanisms: A New Perspective. *The American Journal of Psychoanalysis*, 2004; 64(1): 1-26.
 - How Psychiatric Treatments Can Enhance Psychological Defense Mechanisms. *The American Journal of Psychoanalysis*, 2006; 66(2): 173-194.
 - Repetitive Maladaptive Behavior: Beyond Repetition Compulsion. *The American Journal of Psychoanalysis*, 2010; 70: 282-298
 - Hypomania: A Depressive Inhibition Override Defense Mechanism. *Journal of Affective Disorders*, 2008; 109: 221-232.
 - A Cognitive Regulatory Control Model Of Schizophrenia. *Brain Research Bulletin*, 2011; 85: 36-41
 - Personality Disorders: A Dimensional Defense Mechanism Approach. *American Journal of Psychotherapy*, 2010; 64(2): 153-169.
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Course Outline

- Nature of psychological defence mechanisms & classical defence mechanisms
 - Expanded role of psychological defence mechanisms
 - The role of defence mechanisms in specific conditions
 - How our natural psychological defences can be applied therapeutically
 - PDF of course and access to all my articles www.psychiatrytheory.com or www.theorypsychiatry.com
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The Nature of Defence Mechanisms

- Traditional view-Defence mechanisms protect conscious system functioning from threatening unconscious inputs
 - Psychological defence mechanisms more generally protect us from adverse emotional states
 - Defence mechanisms are to psychological functioning what the immune system is to biological functioning
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Origin of the Concept

- Sigmund Freud originated the concept-The Neuropsychosis of Defense (1894)
 - 'I have the distinct feeling that I have touched on one of the greatest secrets of nature.' (Personal communication to his friend Wilhelm Fliess)
 - 3 mechanisms identified:
 - Affect transformation (conversion, hysteria)
 - Affect displacement (obsessional ideas)
 - Exchange of affect (anxiety neurosis and melancholia)
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Classical Defence Mechanisms

- Sigmund and Anna Freud described most of these defences
 - Listed 5 major properties of psychological defence mechanisms
 1. A major means of managing conflict and disturbing affect
 2. Relatively unconscious
 3. Discrete from one another
 4. Although they are the hallmark of major psychiatric syndromes they are reversible
 5. Defences can be both adaptive and pathological
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George Vaillant & Defence Mechanisms

- Self-deception capacity
 - Emphasized the crucial role of defences in safeguarding mental health even when this involves self-deception
 - Wisdom of the ego: 'Defensive self-deception reflects the ego's-the integrated brain's-best synthetic effort at coping with life events that otherwise would be overwhelming'
 - 'Accommodation to life'
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Vaillant: Defence Mechanism Categories

- Maturity level of defence-Based on adaptive value and age when expressed
 - Psychotic
 - Delusional projection
 - Denial
 - Distortion
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Immature Defences

- Projection
 - Schizoid fantasy
 - Idealization/Devaluation
 - Splitting
 - Acting out
 - Dissociation (As a breakdown of psychological functioning)
 - Denial (Complete as opposed to partial)
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Intermediate (Neurotic) Defences

- Intellectualization
 - Rationalization
 - Displacement
 - Isolation
 - Repression
 - Reaction formation
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Mature Defences

- Altruism
 - Sublimation
 - Suppression
 - Anticipation
 - Humour
 - Helpful for clinicians to become familiar with all of these defences both in regards to assessment and treatment
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Defence Mechanism Assessment

- Clinical familiarity is the best method for clinicians
 - Scales: The Defense Style Questionnaire (DSQ), Defense Mechanism Inventory, Defense Mechanism Rating Scale
 - DSQ (Bond et al 1983)-Different versions including 72-item and condensed 40 item
 - DSQ 40 item with 20 defences represented by 2 items each
 - Validity issues-For example, in one study 12/40 items were attributed to the defence mechanism they are designed to assess by less than a half of eight raters (Chabrol et al, 2005)
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Select Research Utilizing Scales

- 50-year longitudinal study of men-Maturity level of defence positively related to psychosocial functioning and health (Soldz & Vallaint, 1998)
 - Over a 3-5 year course of psychodynamic treatment patients with depression, anxiety, and personality disorders shifted to lower use of maladaptive defences (Bond & Perry, 2004)
 - Defence mechanism changes with treatment might effect the mature and immature levels primarily-Major depression patients treated with dynamic psychotherapy and antidepressants experienced an increase in mature defences and decrease in immature defences (Ackerman, Lewin, & Carr, 1999)
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Select Research Utilizing Scales

- Borderline Personality Disorder patients typically use immature defences (Leichsenring, 1999)
 - Adaptive, more mature defences might help people stay in therapy longer (Perry et al, 2007)-Hence, those most in need of therapy based on their low level of functioning might lack the defences needed to maintain long-term therapy
 - Defence level maturity increases with development (Tuulio-Henriksson et al, 1997)
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Expanded Defence Mechanism Perspective

- Psychological Defense Mechanisms: A New Perspective, The American Journal Of Psychoanalysis (Bowins, 2004)
 - 2 major defence templates-Positive cognitive distortions and dissociation
 - Evolution of defence mechanisms-A very important story
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Evolution of Defence Mechanisms & Emotions

- Universal primary emotions include sadness, happiness, fear, anger, disgust, interest, shame, and surprise
 - Secondary emotions represent combinations of primary emotions or variations of primary emotions-For example, contempt from anger and disgust, and annoyed as a variant of anger
 - Cognitive activating appraisals conscious or unconscious give rise to virtually all emotions
 - When a cognitive activating appraisal detects the 'deep structure' to an emotion that feeling arises
 - Deep structures to emotions include: Fear-threat or danger, sadness-loss, happiness-gain, anger-violation or damage
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Amplification Effect-Role of Intelligence

- Many primary and secondary emotions are present in primates and mammals
 - Human evolution involves vastly superior intelligence
 - What happens to emotional information processing when this vastly superior intelligence is superimposed on it?
 - The cognitive activating appraisals become more intensive, extensive, and a temporal dimension is added-Consequently primary and secondary emotions are amplified (Bowins 2004, 2006)
 - The amplification effect accounts why we are the most emotional of all creatures (Hebb 1949), and in regards to sadness and fear contributes to depression and anxiety disorders, respectively
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Amplification Effect: Negative Emotions

- The amplification effect of human intelligence on emotions ensures that fitness reducing negative emotional states arise
 - Fitness consequences of not attending to significant negative events translates into a natural focus on negative information, further contributing to adverse emotions
 - The greater number of primary and consequently secondary negative emotions (fear, sadness, anger, disgust, shame compared to happiness, interest) also contributes to the negative emotion burden
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Amplification Effect & Defence Mechanisms: Compensatory Evolution

- Behaviour is highly visible to natural selection
 - Evolutionary fitness was reduced by the excessive burden of negative emotions, and depression and anxiety disorders
 - Awareness of our own mortality a highly significant negative influence
 - The evolution of human intelligence and the amplification effect on emotions could not be reversed
 - Psychological defence mechanisms evolved to defensively compensate and restore functioning to fitness sustaining and in some cases enhancing levels
 - Defence mechanisms operate at both the level of adverse emotions (e.g. positive cognitive distortions and dissociation) and mental illness (e.g. hypomania)
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Defence Mechanisms & Evolution

- Conscious system functioning can be fragile and prone to disruption, primarily from negative emotionally charged inputs
 - A defensive conscious system repressive barrier evolved to safeguard conscious system functioning (Langs, 1996)
 - Classical defences that modulate conscious system awareness of unconscious states include denial, projection, reaction formation, repression, isolation, and suppression
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Positive Cognitive Distortions

- Positive cognitive distortions-Refers to the tendency to place a self-enhancing spin on experience and alter the perception of unfavourable events in a positive way to lessen the impact
 - Alloy & Abramson (1979)-Non-depressed subjects demonstrate an 'illusion of control' with positive outcomes when the outcome is not entirely clear based on the response (non-contingent condition); nondepressed subjects demonstrate an 'illusion of no control' when the outcome is negative and non-contingent.
 - Alloy & Abramson (1979)-Depressives show the reverse profile
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Positive Cognitive Distortions

- Alloy & Abramson results show how good mental health involves a positivity bias
 - Beck-Greatest explanatory power provided by a model stipulating:
 1. Non-depressive cognitive organization has a positive bias
 2. As it shifts to depression the positive cognitive bias is neutralized
 3. As depression develops a negative bias occurs
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Positive Cognitive Distortions

- Positive cognitive bias naturally present in other phenomena
 - Inclination to be excessively optimistic about the future (Tiger 1979)
 - Recall the past in a selective way, favouring positive experiences and downplaying or negating negative experiences (e.g physical pain)
 - Depression and anxiety disorders a reverse profile-The illness 'captures' the defence similar to auto-immune conditions
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Positive Cognitive Distortions & Classic Defence Mechanisms

- Positive cognitive distortions subsume classical psychological defence mechanisms
 - Maturity level more of a spectrum than discrete categories (Trijsburg et al 2000)
 - Inverse relationship between defence maturity level and degree of cognitive distortion-Greater maturity level involves less cognitive distortion while there is more cognitive distortion with immature defences
 - Mature defences (e.g. humour) attenuate unpleasant reality whereas immature defences (e.g schizoid fantasy) severely distort reality
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Mild Positive Cognitive Distortions

- Positive cognitive distortions occur on a spectrum from mild to extreme
 - Mild cognitive distortions:
 - Placing a sugar coating on experience, seeing things through rose-coloured glasses, and placing a positive self-enhancing spin on events
 - Positive attribution bias-Non-depressives stable, internal, and global attributions for positive events and the reverse for negative events; depressives reverse profile
 - Religious and spiritual beliefs
 - Mature classical defences
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Moderate Positive Cognitive Distortions

- Excessive fantasy involvement
 - Magical thinking-Superstitious thoughts, belief in fortune-telling and horoscopes, acceptance of mystical modes of healing, and lotteries
 - Overvalued ideas and milder paranormal experiences
 - Intermediate (neurotic) classical defences
 - Purely logical and rational mind more myth than reality
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Extreme Positive Cognitive Distortions

- Paranormal experiences
 - Cross the border into the realm of actual psychosis-delusions
 - Psychotic thought content represents extreme cognitive distortions
 - Immature & psychotic classical defences
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Positive Cognitive Distortions & Stress

- The greater the internally or externally generated stress, the more extensive the cognitive distortion required to compensate
 - Limited everyday stress only requires mild positive distortions
 - Heightened stress necessitates moderate distortions
 - Extreme stress often involves a brief activation of extensive cognitive distortions
 - Milder cognitive distortions are generally more adaptive; more extreme ones less adaptive other than for brief and limited expressions
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Cognitive Distortions-An Innate Defence

- Cognitive distortions as an innate defence supported by:
 1. The commonality of various cognitive distortions, particularly mild-moderate ones
 2. The linkage of them to classical defence mechanisms that have been well validated
 3. The presence of a likely neurochemical substrate-Dopamine
 - Dopamine appears to be involved in increased mental fluidity or neural plasticity-For example, dopamine depleting disorders entail reduced cognitive flexibility
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Societal Manifestations of Cognitive Distortions

- Culture of denial: Man-made disasters such as BP Gulf of Mexico oil spill, U.S sub-prime housing market and financial services collapse have this in common (Nancy Levenson)-An overly optimistic bias, focusing on the rewards and downplaying the risk is the common theme, with those involved unconsciously reinforcing the optimistic biases of others (for example, the housing market will continue to rise)
 - Discrediting of science, such as with global warming skepticism
 - Belief in all powerful beings-Religion and spirituality generally; a recent specific example involves the Mexican drug wars-Thousands dead and many believe and trust their fragile life to La Santa Meurte turning to death itself to protect them
 - Resilience to tragedy-The capacity to downplay the negative side of things and focus on the positive and self-enhancing aspects
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Beliefs & Cognitive Distortions

- Cognitive biases supporting the beliefs we hold include (Michael Sherman-The Believing Brain):
 - Anchoring bias-Relying too heavily on limited information
 - Authority bias-Overvaluing the opinion of experts
 - Belief bias-Evaluating the strength of an argument based on the believability of its conclusion
 - Confirmation bias-Seeking evidence to support beliefs and ignoring or reinterpreting disconfirming evidence
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Dissociation

- One of the most complex and misunderstood psychological entities
 - Janet-A division of mental faculties resulting from the failure of integrative processes
 - Freud-Described how dissociation can dislocate affect from ideas
 - Natural organizing principle of the psyche giving humans the ability to adapt, think, act, and respond (Watkins & Watkins 1997)
 - Provides the ability to defensively detach from disturbing emotional states (Bowins 2004)
 - Some classical defence mechanisms involve dissociation-For example, isolation, repression, intellectualization, and denial
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Dissociation

- One of our major defence templates
 - Dissociation occurs on a spectrum from mild to extreme
 - Mild-Absorption and imaginative involvement, and emotional numbing
 - Moderate-Depersonalization and derealization
 - Extreme-Amnesia and identity fragmentation
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Absorption and Imaginative Involvement

- Forms-Missing part of a conversation, not sure if something was done or only thought about, staring into space, ignoring pain, talking to oneself when alone, and absorption in an activity
 - Prevalence data based on Dissociative Experiences Scale (Ross et al 1990, 1991)
 - Absorption and imaginative involvement extremely common-For example, missing part of a conversation 83% of people surveyed and talking to oneself when alone 56% (Ross et al 1990, 1991)
 - Nothing inherently pathological about these experiences even when displayed at high levels
 - Those displaying absorption and imaginative involvement are well adjusted (Kihlstrom et al 1994)
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Depersonalization & Derealization

- Forms-Not recognizing one's reflection in a mirror, other people and objects do not seem real, feeling as though one's body is not one's own, and looking at the world through a fog
 - Moderate dissociative experiences are quite common-For example, other people and objects do not seem real 26% of people surveyed, and looking at the world through a fog 26% (Ross et al 1990, 1991)
 - 46% of college students experience depersonalization (Simeon et al 1997)
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Amnesia and Identity Fragmentation

- Forms of amnesia-Finding oneself in a place but unaware of how one got there, finding oneself dressed in clothes one cannot remember putting on, finding unfamiliar things in one's belonging, and not recognizing friends or family members
 - Amnesia is reasonably common-For example, finding oneself in a place but unaware of how one got there 19% of those surveyed and finding unfamiliar things in ones belongings 22% (Ross et al 1990, 1991)
 - Identity fragmentation in Dissociative Identity Disorder-12% of people surveyed felt 'almost as if they were two different people' more than 30% of the time
 - Hence, even more extreme forms of dissociation are not uncommon
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Psychological Defence & Dissociation

- Milder forms of dissociation help us cope with everyday milder stress
 - More moderate to extreme forms also adaptive when extensive stress
 - Dissociation in general infantry and special forces during stress (Morgan et al 2001)
 - Dissociative States Scale applied to assess dissociative symptoms before and after survival training
 - Dissociative experiences increased significantly-For example, 'Things seemed unreal as if in a dream' experienced by 24% prior to training and 63% after, and 'You spaced out and lost track of what was going on' 31% before and 63% after
 - The good physical and mental health of participants combined with severe stress suggests an adaptive defensive response
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Dissociation-An Innate Defence

- Dissociation as an innate defence is supported by:
 1. The commonality of these experiences, particularly milder forms amongst the general population
 2. How under stress dissociation increases in mentally and physically healthy people
 3. Dissociative experiences are independent of all major socioeconomic variables other than age (the ability declines with age) suggesting endogenous factors play a major role
 4. As cognitive flexibility declines with age so does the ability to dissociate
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Defence Mechanisms & Mind-Altering Substances

- Tendency to use mind-altering substances is universal-Described as a basic human motive (McPeake et al, 1991)
 - Examples include: Alcohol-Western societies, kava-Polynesia, betel nut-200 million people East Africa to Melanesia, coca leaves-Andes, potent tobacco-Aboriginals of Australia and North America
 - Mind-altering substance use cannot be stopped despite the best law enforcement efforts
 - These substances augment our natural defence mechanisms
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Defence Mechanisms & Mind-Altering Substances

- Mind-altering substances bolster positive cognitive distortions and dissociation
 - Alcohol achieves both effects; marijuana dissociation & a humorous outlook; beetle nut a sense of euphoria and feeling as if a different person (depersonalization); kava numbs (emotional numbing) and produces a sense of unreality
 - Short-term over long-term motivation
 - Excessive use in modern industrial societies might occur in part, due to how the attentional focus demands of the global economy impair our natural ability to cognitively distort experiences in a positive direction and engage in absorption and imaginative involvement
 - Mind-altering substances in a sense restore this natural ability although with adverse long-term consequences
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Enhancing Defence Mechanisms Via Common Psychiatric Treatment

- How Psychiatric Treatments Can Enhance Psychological Defense Mechanisms, The American Journal Of Psychoanalysis (Bowins 2006)
 - If mind-altering substances accentuate positive cognitive distortions and dissociation it follows that antidepressants might also do so
 - Antidepressants and psychotherapy help restore our natural defences
 - Emotional information Processing-Facial expression recognition, emotional categorization (assignment of personality traits to likeable and unlikeable categories), and emotional memory, are relevant to antidepressants
 - Even one dose of an antidepressant (both noradrenergic and serotonergic) administered to healthy subjects can shift emotional information processing in a positive direction (Harmer et al, 2003)
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Antidepressants & Positive Cognitive Distortions

- Given the speed of action and mental health of subjects in the antidepressant emotional information processing studies, alterations in emotional information processing constitute a primary effect that is not secondary to other factors
 - Emotional information processing influences cognitive activating appraisals-For example, enhanced recognition of happiness in facial expressions produces thoughts such as 'People like me.'
 - A positive shift in cognitive activating appraisals underlies positive cognitive distortions
 - Hence, via the positive impact on emotional information processing antidepressants generate positive cognitive distortions
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Psychotherapy & Positive Cognitive Distortions

- Psychotherapy produces a shift to more mature classical defence mechanisms and hence positive cognitive distortions
 - Non-specific effects of psychotherapy and positive cognitive distortions
 - Factors such as the feeling of being understood, a supportive relationship, receipt of a rationale explanation for emotional suffering and change, empathy, enhanced self-efficacy, and hope, can foster a positive perspective shift
 - Hopelessness is associated with depression & hope with recovery-Hope represents a highly significant positive cognitive distortion
 - Positive perspective shifts favour positive cognitive distortions
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Psychotherapy & Positive Cognitive Distortions

- Effects of specific types of psychotherapy on positive cognitive distortions
 - Psychodynamic therapy by transference interpretations
 - Interpersonal therapy by correcting role impairments
 - Cognitive therapy by directly shifting cognitions from negative to positive
 - Behaviour therapy by improving access to positive reinforcement
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Dissociation & Major Psychiatric Treatments

- Adaptive dissociation involves scanning negative emotional input for threatening content and dissociating from non-threatening input
 - Depression and anxiety entail a failure to dissociate from negative stimuli even if non-threatening, often because many stimuli are falsely perceived as threatening
 - The cognitive fixation on negative emotional stimuli contributes to a mutually reinforcing cycle of negative thoughts and emotions-Cognitive activating appraisals emphasizing loss and threat produce sadness and fear/anxiety respectively, creating an emotional climate conducive to the ongoing perception of loss and threat
 - By fostering positive cognitive distortions antidepressants and psychotherapy facilitate adaptive dissociation from non-threatening negative emotional input, thereby interrupting cycles of negative thoughts and emotions and fostering positive cycles
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Therapeutic Dissociation-Compartmentalization

- Compartmentalization and other milder forms of dissociation can be learned
 - Compartmentalization-Learning to place simultaneous experiences in separate psychological spaces
 - Determine what major divisions in a person's life fit naturally
 - Progress to finer divisions or subdivisions
 - Mental imagery can be applied
 - Problems in one area of life are contained and do not spill over into other areas
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Therapeutic Absorption

- Absorption-Relies on the absorption and imaginative involvement form of dissociation
 - Have patients compile a list of pleasing mental scenarios
 - Guide practice in shifting from negative external and internal circumstances to the positive scenarios and expand on the latter with fantasy
 - Constructive absorptive foci particularly effective-sublimation
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Other Forms of Therapeutic Dissociation

- Hobbies serve as a form of therapeutic absorption and can create a safe compartment
 - Exercise-Release of endogenous opioids might foster both dissociation and positive cognitive distortions
 - Meditation-Absorption with or without fantasy involvement
 - Concentrative meditation-Focuses on a object of meditation
 - Mindfulness meditation-Maintains awareness of the present moment
 - Both forms of meditation involve absorption-In the object focused on in concentrative meditation, and in the safe, positive, or neutral present in mindfulness meditation
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Treatment-Positive Cognitive Distortions

- No advantage to mental health in terms of perceiving things fully realistically all the time, and reality often unclear
 - Fostering positive self-enhancing spins on experience is healthy as opposed to depressive realism (cognitive therapy inadvertently achieves this)
 - Encouraging non-depressive attribution biases
 - Acquiring cognitively distorting (mature) classical psychological defences
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General Defence Mechanism Treatment Issues

- Assess the person's defences
 - Appreciate that defences are often as crucial to psychological functioning as the immune system is to physiological functioning; do not be too fast to eliminate a defence
 - Mild to moderate strength defences tend to be more adaptive, while more extreme defences are less adaptive other than for brief activations in severe circumstances
 - Modify more extreme defences within the person's capacity to tolerate change
 - Maladaptive cognitive distortions need to be corrected to achieve insights
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The Role of Defence Mechanisms in Specific Conditions

- Grieving Process & PTSD
 - Hypomania
 - Psychosis
 - Personality Disorders
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Grieving Process-An Evolved Defence

- Repetitive Maladaptive Behavior: Beyond Repetition Compulsion, The American Journal Of Psychoanalysis (Bowins, 2010)
 - An evolved defence automatically activated with significant loss
 - Features of the grieving process that help us cope with loss include: Immediate activation, fully conscious, and progression to acceptance by components such as working through relevant emotions and thoughts
 - Grieving involves positive cognitive distortions in that the loss is reconfigured to become more acceptable (e.g. she lives on within me), and dissociation in that the end point achieves a comfortable detachment from the loss
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Grieving Process & Trauma

- Trauma always involves loss of some form, hence by extension the grieving process defends against the effects of trauma
 - Cognitive and emotional aspects occur with any experience
 - A biologically based learning process forges the cognitive and emotional aspects of experience into a psychological program (Kutz, 1989; Bowlby 1988; Van Der Kolk, 1987)
 - Due to the evolutionary fitness implications trauma related cognitions and emotions naturally enter into consciousness
 - Conscious linkage of the cognitive and emotional components of trauma facilitates a successful resolution
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Grieving Process & Trauma

- When linkage of the cognitive and emotional components of a traumatic occurrence is experienced as too painful, it is avoided via dissociation based on the short-term relief of distress
 - This process occurs either by dissociated repetition of various traumatic elements, or overuse of less mature defences that facilitate dissociative avoidance such as repression, isolation, and identification with the aggressor
 - Psychotherapy can assist in linking the dissociated components; fostering healthy grieving
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Grieving Process & PTSD

- With Post-Traumatic Stress Disorder (PTSD) the grieving process does not engage, and dissociative avoidance occurs producing ongoing re-experiencing of the emotional and cognitive components of the traumatic event
 - The other PTSD symptom clusters-avoidance of trauma related stimuli and heightened physiological arousal-align with the defensive function of avoiding further contact with damaging agents
 - However, the dissociated repetition of trauma-related cognitions and emotions, and failure to fully fuse them, maintains these additional PTSD symptoms
 - When the grieving process engages after trauma the emotional and cognitive aspects are consciously linked and resolution of the distress progresses
 - Psychotherapy for PTSD-Correcting failed activation of the grieving process
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Hypomania

- Hypomania: A Depressive Inhibition Override Defence Mechanism, Journal Of Affective Disorders (Bowins, 2008)
 - Hypomania as a natural defence against depression designed to override or interrupt it
 - A defence against an illness and not an emotional state per se
 - While mania constitutes an illness hypomania does not
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Depressive Inhibition

- Inhibition of mental and physical volition the key aspect of depression (Kraepelin, 1904)
 - Depressive inhibition impaired functioning within both the social and physical environments during our evolution
 - In addition, it would have indicated a poor partner for reciprocal exchanges and poor genes for reproduction (signal function)
 - Behaviour very much exposed to natural selection
 - Consequently, depressive inhibition would have reduced evolutionary fitness
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BAS & BIS

- Behavioural Activation System (BAS) and Behavioural Inhibition System (BIS) very ancient motivational systems-BAS relates to approach behaviour and reward; BIS to avoidance and punishment
 - Depression involves reduced BAS and high BIS
 - High BIS characterizes many psychiatric disorders; low BAS more specific to depression
 - Amplification effect of human intelligence intensifies cognitive activating appraisals for BAS and BIS, contributing to depressive inhibition
 - Seasonal Affective Disorder (SADS) a type of depression tightly linked to environmental cues relevant to BAS/BIS
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How To Manage Depressive Inhibition

- Depressive inhibition persists unlike SADS; a short-term change in environmental cues relevant to BAS/BIS does not alter it
 - Elimination of depressive inhibition in a short time frame is then untenable-An alternative solution is to temporarily override or interrupt it to restore adaptive functioning
 - Precedents for an override defence mechanism-Brain systems overriding one another such as predator detection systems interrupting sleep, and physiological needs (e.g. thirst) or intense emotions (e.g. anger) overriding behavioural inhibition
 - Hypomania evolved as a defence against depression designed to temporarily override or interrupt it and restore adaptive functioning
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Hypomania-The Evolutionary Solution

- Characteristics of hypomania relevant to an override defence role
 - Mental and physical activity-'The most striking feature' (Kraepelin, 1913)
 - Recent evidence supports elevating mental and physical activity to a stem criteria (Benazzi, 2007): Over-activity the most common hypomanic symptom, strongest association with BPII, mental and physical activity are independent of mood change, a mean of 5.6 hypomanic symptoms found when over-activity occurs, high positive predictive value for hypomania (81%), when 5 or more hypomanic symptoms present over-activity occurs in 90% of cases while elevated mood 77%
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Time Frame

- In an evolutionary context increased mental and physical activity would have to ensue quickly and would only need to be present briefly for hypomania to function as an override defence mechanism
 - Sudden onset supported by observed antidepressant induced shifts from depression to mania, and triggering by rapid eye movement sleep when preceded by a night or two of sleep deprivation
 - DSM-IV-TR criteria indicates 4 days for a hypomanic episode
 - Research demonstrates a time frame of 1-3 days (Wicki & Angst, 1991; Akiskal & Pinto, 1999)
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Mixed Mood States

- Given that the purpose is to override depressive mental and physical inhibition to temporarily restore adaptive functioning, mixed mood states are expected
 - Mixed mood states are the norm (numerous studies)
 - 'Rule rather than the exception' (Bauer et al, 1994)
 - Irritability likely arises as a cognitive dissonance effect of mixed mood states-The simultaneous presence of depressive and hypomanic/manic features results in cognitive dissonance expressed as irritability
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Adaptive Aspects Of Hypomania

- 'Supernormal periods of functioning' (Akiskal & Pinto, 1999)
 - Adaptive hypomanic signs and symptoms include: Cheerfulness and jocularity, people-seeking, increased sexual drive and behaviour, talkativeness and eloquence, confidence and optimism, disinhibition and carefree attitudes, reduced sleep need, vitality and energy, and over-involvement in new projects (Akiskal & Pinto, 1999)
 - When preceded by depression hypomania is ego-syntonic, usually pleasurable, socially adaptive, and described by some clinicians as a 'flight into health' (Akiskal et al, 1979)
 - Increased BAS appears to play a role in the beneficial effects of hypomania-High BAS is associated with hypomania (Meyer et al, 1999)
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Adaptive Aspects Of Hypomania

- A success in the context of hypomania results in intensified goal-seeking as opposed to coasting (Johnson et al, 2000)
 - Self-reported benefits of hypomania include: Increased social outgoingness and ease, creativity, productivity, sexual enjoyment, and psychological sensitivity; unipolar depressives only increased sensitivity (Jamison et al, 1980)
 - Base-line effect applies-The lower the level of functioning prior to a hypomanic episode the greater the change with it (Jamison et al, 1980)
 - Mild to moderate positive cognitive distortions assist in the cognitive aspects of the hypomanic override defence function by activating BAS and inhibiting BIS
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Adaptive Aspects Of Hypomania

- Reduced social inhibitions and enhanced social functioning with hypomania
 - Social anxiety and depression often linked (Fava et al, 2000)
 - Social anxiety often starts earlier than depression and many patients attribute their depression to the suffering imposed by social anxiety (Schneier et al, 1999)
 - Social anxiety often precedes bipolar disorder and shows a complete remission during hypomania (Perugi et al, 1999)
 - ‘The volitional excitement which accompanies the disease may under certain circumstances set powers free which otherwise are constrained by all kinds of inhibitions’ (Kraepelin, 1921)-Freeing of social inhibitions a key aspect relevant to functioning in the social environment throughout our evolution
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Hyperthymic Personality

- Hypomania as a personality dimension representing a permanently elevated baseline of hypomanic adjustment (Akiskal, 1996)
 - Hyperthymia is positively associated with leadership qualities and novelty seeking, while negatively associated with harm avoidance (Akiskal & Akiskal, 2005)
 - Socially adaptive features: More friends and social interactions, greater propensity to be a leader, higher sociability and outgoingness (self-reported); and more poised, articulate, and relaxed behaviour (observed) (Eckblad & Chapman, 1986)
 - The ultimate proactive defence against depressive inhibition including social anxiety-Protects against depression (Akiskal & Pinto, 1999)
 - In modern society many people try to achieve a hyperthymic permanently ‘on’ state to enhance success, by using performance enhancers and stimulant drinks
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Hyperthymic Personality

- Given that hyperthymia represents 1% of the population and hypomania is much more common, plus the defensive role of hypomania for depressive inhibition, it is most likely that hyperthymia evolved from hypomania
 - Hyperthymia could have gained a foothold in personality via its similarity to the well established extroversion dimension of personality
 - Transition from hunting-gathering to agriculture to industrial society exponentially expanded the opportunity and acceptance of highly unequal resource accumulation, thereby increasing the success of hyperthymia
 - Hence, hyperthymia is likely undergoing rapid allelic spread and modification
 - Advantageous alleles modifying existing systems can spread rapidly, particularly in larger populations (Cochran et al, 2006)
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Evolutionary Impact Of Hypomania

- Improved adaptation to the social and physical environments during our evolution
 - Reduced likelihood of ostracism, and hence increased probability of survival and reproduction
 - Signalled better genes for reproduction and better capacity to reciprocate in social exchanges
 - Hence, hypomania would have temporarily restored fitness sustaining and even enhancing behaviour in the context of depressive inhibition
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Mania: A Defence Over The Edge

- In some evolutionary circumstances mania might have been adaptive, but is typically maladaptive in line with how extreme versions of defence mechanisms are usually dysfunctional aside from brief and limited applications
 - If hypomania routinely leads to mania the defence would be less effective
 - Hypomania prevalence matches that of unipolar depression (Akiskal, 1996)-3 to 6% of the population worldwide has hypomania or cyclothymia giving a 1:1 unipolar-bipolar ratio; mania 1%
 - Sub-threshold hypomanic symptoms likely to be even more common
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Mania: A Defence Over The Edge

- Even when manic episodes occur 50-60% of these people will also experience milder hypomanic episodes (Cassano et al, 1992)
 - Only 6% of cyclothymics experience manic episodes (Akiskal, 1996)
 - Hence, hypomania rarely goes on to mania
 - DSM-IV-TR criteria of 4 days minimum over-emphasizes the conversion to mania
 - Hypomania so benign in regards to problems and adaptive it should not even be included in DSM and other psychiatric diagnostic systems
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Mania: A Defence Over The Edge

- Why does mania occur?
 - When hypomania fails to override depressive inhibition the defence might intensify, but at some point the costs of defence intensification exceed the benefits
 - Cognitive regulatory control mechanism-Typically when the costs of defence intensification exceed the benefits the defence is deactivated, but when this mechanism fails defence intensification continues despite the costs exceeding the benefits of overriding depressive inhibition
 - The intact functioning of this cognitive regulatory control process likely distinguishes BPII from BPI-Intact means BPII; failed BPI
 - Psychoactive substances including antidepressants might weaken this cognitive regulatory control mechanism facilitating the progression of hypomania to mania
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Treatment Implications

- Hypomania is a short-term treatment for depression and social anxiety, and not a problem to treat
 - Attempt to induce hypomania-Encourage mental, physical, and social activity; exercise might oppose depression in part by inducing hypomania
 - Behavioural activation treatment for depression emphasizes increased activity, and of types that can lead to reinforcement-Hypomania induction; hypomania as a natural form of behavioural activation in the context of depressive inhibition
 - Behavioural activity therapy has been found to be as effective as cognitive therapy even for altering negative thinking (Jacobson et al, 1996)
 - Hypomania then represents an effective reactive and proactive defence
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Psychosis & Psychological Defence

- A Cognitive Regulatory Control Model Of Schizophrenia, Brain Research Bulletin (Bowins, 2011)
 - We seem to have a natural capacity for psychosis-“The central nervous system appears to possess a latent capacity, neurobiologically speaking, for a pattern of functioning, which experientially is human psychotic consciousness” (Bowers, 1973)
 - Based on the evolution of human intelligence an extensive range of thought content (cognitive distortions), thought form variants, and sensory perceptual experiences naturally occur
 - The most extreme forms represent psychosis
 - When it is appreciated that moderate cognitive distortions, thought form variants, and sensory perceptual experiences are common, extreme forms follow logically
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Psychosis & Cognitive Regulatory Control Processes

- To facilitate reality congruency typically necessary for adaptive functioning extreme cognitive distortions, thought form variants, and sensory perceptual experiences are normally blocked from the conscious and awake state by cognitive regulatory control processes
 - Neural changes underlying the negative symptoms of schizophrenia damage or impair the cognitive regulatory control processes allowing psychosis to manifest-For example, auditory hallucinations might arise from failure of the auditory cortex to be deactivated during inner speech
 - During sleep when reality congruency is not required the cognitive regulatory control processes are deactivated and psychotic equivalents are expressed in dreams
 - Cognitive regulatory control processes can also be deactivated to facilitate defensive functioning
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Psychosis As A Defence Mechanism

- A spectrum likely occurs ranging from maximal damage/impairment to the cognitive regulatory control processes and minimal defence (e.g. schizophrenia), to minimal damage/impairment and maximal defence (e.g. psychosis during grieving)
 - During grieving 14% of widowed people have visual hallucinations of their spouse, 13% auditory hallucinations, and 47% the general hallucinatory experience of feeling their presence (Olson et al, 1985)
 - Defence mechanism activation is clear in that the lost sensory and related emotional input is being restored
 - If hallucinations during grieving arise strictly from damage or impairment we would expect a non-specific random expression of delusions, thought form alterations, and sensory perceptual experiences
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Psychosis As A Defence Mechanism

- Paranoid Personality Disorder and Delusional Disorder represent a blend of damage/impairment to the cognitive regulatory control processes and defensive motivation (e.g. projection of undesirable qualities to others)
 - Brief reactive psychosis also operates on this spectrum-Where severe physiological stress occurs (e.g. dehydration or hunger) damage/impairment to the cognitive regulatory control processes can dominate, when psychological stress is great defensive motivation is key, and in other instances both processes can apply
 - In schizophrenia thought content can be structured defensively after it arises-Supported by the finding that self-esteem can influence the content of delusions (Bowins & Shugar, 1998).
 - Although speculative, psychosis might in some instances help to offset reduced cognitive, emotional, and social activity arising from negative symptoms
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Cognitive Regulatory Control Model Advantages

- The therapeutic gap is diminished given that psychosis only hinges on cognitive regulatory control processes normally deactivated during sleep and in the service of psychological defence
 - Clarifies the puzzling relationship between negative and positive symptoms-Separate processes with the former giving rise to the latter
 - Suggests why psychosis tends to take the same form in a given individual-Represents an extreme of what is normal for the person
 - Explains the presence of psychosis in BPI-Both the cognitive regulatory processes blocking psychosis and the conversion of hypomania to mania are damaged
 - Can lead to new treatment options both pharmacological and psychotherapeutic to strengthen damaged or impaired cognitive regulatory control processes
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Personality Disorders: A Defence Mechanism Approach

- Personality Disorders: A Dimensional Defense Mechanism Approach, The American Journal Of Psychotherapy (Bowins, 2010)
 - Categorical models (DSM-IV-TR and ICD-10) maintain that there are discrete categories
 - Dimensional models view abnormal personality as an extreme version of normal personality
 - Psychological traits tend to be continuous suggesting that personality is dimensional in nature
 - 80% of personality disorder experts believe in a dimensional model for personality disorders and that evidence for the category approach is lacking (Bernstein et al, 2007)
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Problems Applying A Dimensional Model

- Can normal personality traits be extended to abnormal personality?
 - Normal personality dimensions include extroversion-introversion, emotional reactivity/stability, conscientiousness, agreeableness, and openness to experience (Costa & McCrae, 1992)
 - Normal dimensions do not readily extend to abnormal personality-For example, extreme extroversion only relates somewhat to histrionic personality and extreme introversion applies more to anxiety disorders; extreme reactivity is neuroticism predisposing to many mental health problems while extreme stability does not produce any personality problem
 - Statistical deviation is not clinical deviation; extremes of normal personality dimensions do not necessarily produce clinical syndromes
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Problems Applying A Dimensional Model

- Measurement instruments for normal personality are not designed for abnormal personality
 - The statistic underlying trait approaches-factor analysis-does not allow for one solution to the question of how many factors underlie a data set
 - Clinical utility issues-Clinicians are unlikely to use scales unless they are simple to apply and yield very useful information
 - Clinical fit-A certain clinical logic exists with the categories used now (e.g Narcissistic Personality Disorder)
 - Identifying precisely what aspect of normal personality is overextended in abnormal personality is crucial for scientific and therapeutic rigour
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A Defence Mechanism Approach

- Specifies precisely what aspect of normal personality is overextended in personality disorders-Defence mechanisms
 - Defences adaptive in a mild to moderate form become maladaptive in extreme applications
 - When these extreme defence mechanism applications are expressed in an enduring fashion they constitute a personality disorder
 - A defence mechanism approach enables personality disorder categories we are familiar with to be retained in a dimensional framework
 - How a defence mechanism approach works for each of the major personality disorders is presented
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Narcissistic Personality Disorder

- Narcissism normal in a milder form-Compensating for weaknesses with strengths
 - Narcissistic Personality Disorder-Significant weaknesses and intense compensation; weaknesses equate with vulnerability and the overcompensation disturbs others
 - Excessive achievement strivings derive from defective self-esteem (Fenichel, 1945)
 - Research reveals vulnerable and grandiose divisions (Dickinson & Pincus, 2003)
 - Treatment approach-Explain with examples how we compensate for weaknesses with strengths and how when there are more significant insecurities the compensation is too intense, identify insecurities and overcompensation, and shore up the insecurities to reduce the extreme compensation
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Avoidant Personality Disorder

- Avoidance of threatening and dangerous situations is a very common defensive strategy in a milder form
 - Avoidance is a crucial defensive process, but when excessive it blocks access to important resources; a healthy balance between avoidance and approach is adaptive
 - Excessive BIS and low BAS-High BIS guides avoidance behaviour while high BAS motivates approach behaviour; BIS is associated with harm avoidance and BAS with novelty-seeking
 - Treatment approach-Have patients learn to distinguish truly threatening situations from those only perceived as such, and approach the latter when rewarding
 - In effect, the treatment approach reduces BIS and avoidance and enhances BAS and approach behaviour
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Dependent Personality Disorder

- Homo sapien evolution required social contact and immersion in hunting-gathering groups-95% of human evolution
 - Other factors promoting dependence: The need for reciprocal exchanges with tracking of debts and entitlements, division of labour, and length of care by parents
 - Hence, mild to moderate dependence is normal
 - Mild to moderate dependence defends against emotional and physical challenges, but excessive dependence is maladaptive because it greatly restricts functioning
 - Treatment approach-Model, guide, and support independence starting with decisions in the therapeutic relationship, and as rewards for independent actions grow and anxiety diminishes dependence will decline to normal levels
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Obsessive-Compulsive Personality Disorder

- Anxiety Paradox-Obsessions increase anxiety while compulsions contain and restrain it
 - Generalized and social anxiety can be displaced into obsessions and then contained and restrained by compulsions-For example, anxiety over aging and death into obsessions about contamination that is then managed by cleaning rituals
 - Mild obsessive-compulsive behaviour is adaptive by helping to manage anxiety; however, the capacity to flexibly adapt is greatly reduced when intense
 - Obsessive-compulsive behaviour is found in 90% of healthy children and adults
 - Treatment approach-Focus on reduction and not elimination, emphasizing adaptive applications; elimination of obsessive-compulsive behaviour is virtually impossible even with combined treatment in part due to the defensive aspect
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Antisocial Personality Disorder

- Although commonly viewed as a defect the evidence is compelling that it represents an adaptive trait providing an enhanced ability to acquire resources through deceit and profiting from violent situations (Harpending & Sobus, 1987)
 - An example of frequency dependent selection-In a low frequency (e.g 1-5%) it is not detected, but higher frequencies lead to elimination from the gene pool (ostracism and murder) and a reduction in frequency
 - Factor analysis of the Psychopathy Checklist-Revised yields emotional detachment and antisocial behaviour factors
 - Emotional detachment = dissociation; Antisocial behaviour evolved as a specialized and extreme form of dissociation (Bowins, 2004)
 - Treatment approach-Consequences but easily avoided by 'white collar' types
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Borderline Personality Disorder

- Somewhat different origin than other personality disorders, but defence mechanisms are instrumental
 - Subjective trauma always involved-Trauma is a highly subjective experience
 - Children are more sensitized to trauma due to their less developed cognitive structures, global undifferentiated thinking, and great dependence on parental figures (Levy, 2000)
 - Even the rate of objective trauma in BPD is high-For example, only 6% of BPD patients did not report highly objective trauma (e.g violence, sexual abuse, separation from parents, severe childhood illness) compared to 61.5% of a normal control group (Bandelow et al, 2005)
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Borderline Personality Disorder

- Two major effects of trauma on defence mechanisms
 1. When trauma occurs age appropriate defence mechanisms are applied to cope, and due to overuse become fixed in personality; hence, trauma in the early years of life sets immature defences such as acting out, idealization-devaluation, and splitting in personality
 2. Impaired and immature cognitive regulatory control of defence mechanism application
 - Treatment approach-1. Improve the defence mechanism profile (psychotherapy leads to lower use of immature and increased use of mature defences), 2. Model mature defence mechanism regulation via management of challenging issues in the therapeutic relationship including limits and boundary setting
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Psychotic Personality Disorders

- Paranoid, schizotypal, and schizoid
 - Some confusion as to what they represent
 - Extreme cognitive distortions expressed on a persistent basis-Extensive magical thinking, over-valued ideas, and delusions characterize these personality disorders
 - Excessive use of more cognitively distorting and reality incongruent classical defence mechanisms including projection in Paranoid Personality Disorder, and schizoid fantasy in Schizoid and Schizotypal disorders
 - Treatment approach-Primarily antipsychotic medication
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Benefits of a Defence Mechanism Approach to Personality Disorders

1. Identifies precisely what aspect of normal personality is overextended
 2. Constitutes a user (clinician and patient) friendly and highly parsimonious approach
 3. Provides effective intervention strategies
 4. Utilizes a dimensional approach while maintaining the most important categories of abnormal personality
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Benefits of a Defence Mechanism Approach to Personality Disorders

5. Avoids the complexity of extending normal personality traits to abnormal personality
 6. Normal personality traits assume a more modest role of influencing the defensive style that dominates-For example, high conscientiousness predisposes to excess reliance on an obsessive-compulsive defensive style, and being very closed to experience sets the stage for avoidance
 7. Provides the option of adding personality disorders, either in terms of extreme and enduring expressions of less mature defence mechanisms constituting a personality disorder (e.g. extensive denial), or via other defensive processes such as 'Difficult Personality Disorder' based on an extreme expression of defences assisting in the individualizing of personality during development
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Defence Mechanism Approach Summary

- Emphasizes the full role of psychological defence mechanisms taking them well beyond the limited role of classical defences
 - Identifies the crucial contribution of evolved intelligence-Amplification effect on emotions and BAS/BIS contributing to depression/hypomania and anxiety disorders, and our natural propensity to psychosis
 - Solid and parsimonious explanatory power
 - Provides clear and easy to apply therapeutic strategies based on natural defences, hence a user friendly approach for both the clinician and patient
 - Humanistic in that the gap between normality and mental illness is diminished, as in hypomania, personality disorders, and psychosis, thereby improving the therapeutic alliance
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