Constriction, Psychological Isolation and Identification with the Hercules Figure Among Angry/Hostile Adolescent Males who have Suffered Attachment Trauma: A Personal Construct Study

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ABSTRACT

While the prevalence of violence among adolescent males has been a concern in both the public and professional domains, effective treatment for this population is still lacking. The objective of this research was to add to the growing body of knowledge addressing the phenomenon of violence within a particular population of these males—specifically, that of adolescent males who both experience elevated levels of trait anger or hostility and who have suffered attachment trauma. Specifically, through examining the personal constructs of a sample of such subjects using the Repertory Grid of George Kelly´s Personal Construct Theory, it was believed that they would demonstrate more constriction, psychological isolation, and identification with the mythological character of Hercules than other males of the same age group. Results indicate that constriction, psychological isolation and identification with the Hercules character were more present in the experimental group subjects than those of the control group. Further, while constriction seems to be related to the identification with the Hercules character, psychological isolation does not. The findings may be relevant to interventions with these individuals, as efforts to work with them could be focused on loosening constriction, lessening psychological isolation, as well as using the Hercules story and its relationship to constriction to then build rapport.

CHAPTER ONE: INTRODUCTION

Statement of the Problem

Violent behavior among adolescent males in the United States has been a major concern for decades. Of the approximately twenty-three thousand homicides reported by the FBI each year, about 10 percent of the perpetrators are under eighteen years of age (Gabarino, 1999). Between the mid-1980's to the mid-1990's the youth homicide rate increased by 168 percent. Additionally, the FBI reports that juvenile arrests for violent crimes rose by more than 50 percent between 1987 and 1996 (FBI, 1997). Self-reported assaults among 17 year olds who responded to the National High School Senior Study indicate that assault rates increased by at least 20 percent between 1975 and 1985 (Ellickson & McGuigan, 2000). In 1997, the Youth Risk Behavior Surveillance System Survey reported that 37 percent of students nationwide had engaged in a fight during the previous year, with male students being nearly twice as likely as female students to do so—46 percent vs. 26 percent. While the prevalence of violence among adolescent males has been decreasing over the past several years, the Forum on Child and Family Statistics (2005) reports the following trends: "Serious violent crime involving juvenile victims and offenders went up between 2002 and 2003. In 2003, 18 per 1,000 juveniles were victims of serious violent crimes—that is, homicide, rape, aggravated assault, and robbery—and 15 per 1,000 juveniles were reported by victims to have committed such crimes. These rates increased from those in 2002, when 10 per 1,000 youth were victims of serious crimes and 11 per 1,000 juveniles were identified as offenders" (para. 18).

The seriousness of this problem has lead to extensive research aimed at identifying the underlying factors correlating with it (Bear, Paradiso, & Connors, 2006; Dodge, Bates and Pettit, 1990; Ellickson & McGuigan, 2000; Gabarino, 1999; Gorman-Smith & Tolan, 1996;

Grinberg, Dawkins & Dawkins, 2005; Henggeler et al., 1992; Henggeler et al., 1997; Lopez & Emmer, 2000; Petras et al., 2004; Pollack, 1998; Salts et al., 1995; Sams & Truscott, 2004; Wilson & Hernnstein, 1985). Two major areas of that research include that related to assessing attachment trauma as it correlates to violent behavior (Bowlby, 1951; 1958; 1969; Egeland & Strouge, 1981; Gabarino, 1999; James, 1994) and that research related to American male masculinity constructs that are based on wide-spread popular themes of what it means to be an American man (Brannon & Juni, 1984; David & Brannon, 1976; Levant, 1996; Levant et al., 1992; Pollack, 1998). When these two factors coexist, the potential for an individual adolescent male becoming violent also increases (Brannon & Juni, 1984; David & Brannon, 1976; Gabarino, 1999; Levant, 1996; Levant et al., 1992; Pollack, 1998). .

As attention turns from not only identifying these factors, but in offering treatment to this population of subjects, the matter becomes increasingly problematic. While early intervention is preferable for positive outcomes with violent young males (Loesel, 2007b), such action is far too often not taken because many boy-like aggressive behaviors are simply attributed to the *boys will be boys* attitude (David & Brannon, 1976; Gabarino, 1999; Levant, 1996; Levant et al., 1992; Pollack, 1998). Further, therapeutic programs often lack underlying scientific basis for their conceptualization and practice (Loesel, 2007a). Once these same individuals reach adolescence, then, two phenomena manifest that make therapy with them difficult: 1) They have an increased sense of distrust, particularly for adults (which makes building a therapeutic alliance very difficult (Gabarino, 1999), and 2) They have come to believe that some of their aggressive behavior is actually simply part of being a good American male (David & Brannon, 1976; Levant, 1996; Levant et al., 1992; Pollack, 1998).

Therefore, it was proposed by this researcher that the Greek myth of Hercules could be used in therapy with these males to help alleviate some of the difficulties arising from these problems. First, assuming that these males will identify with this heroic character (due to his popular nature as a hero as well as the personal characteristics that make him like these

subject) (Fitch, 1987; Greenstadt, 1982; Hamilton, 1969; Henderson, 2001; Vellacott, 1963), there would be an increased likelihood of their developing a trusting relationship with the therapist due to feeling understood rather than labeled in psychopathological terms. Second, because the complete story offers a model for how to redefine oneself in terms of healthy male development, in contrast to more aggressive warrior codes, these subjects may be offered a sense of hope in terms of transforming the energy behind their violent acting out into behavior that like Hercules' is dedicated to the service of others. While this research did not measure variables as they manifest in the therapeutic relationship, it did seek to identify how much these subjects identify with the Hercules figure as compared to another group of males not exposed to attachment trauma. Further, it measured factors of constriction and psychological isolation [as conceptualized by George Kelly (1991a, 1991b)] to then see if these also correlate with identification with the Hercules figure.

The objective of this research was to add to this discussion by addressing the phenomenon of violence within a particular population of these males—specifically, that of adolescent males who both experience elevated levels of trait anger or hostility and who have suffered attachment trauma. Through examining the personal constructs of a sample of such subjects using the Repertory Grid of George Kelly´s Personal Construct Theory, it was believed that they would demonstrate more constriction, psychological isolation, and identification with the mythological character of Hercules than other males of the same age group.

Need for the Study

The need for such a study as this is reflected in both the growing trend in adolescent male violence, and in the lack of a comprehensive treatment modality for this population. With the exception of a few studies (Chamberlain & Reid, 1998; Henggeler, el al., 1992; Henggeler, et al., 1997; Huey, et al., 2000; Shechtman & Ben-David, 1999), treatment proposals for this population have not been promising. Further, those that have demonstrated

effectiveness in research have either been criticized for the difficulty in disseminating the treatment protocol outside the research setting (Henggeler, et. al, 1997), or for methodological flaws in the studies themselves (Dodge, 1999). While the goal of this study is not to provide a treatment protocol, it is believed that generating a measurable index of the subjective experiences of these individuals, as can be done with the Personal Construct Grid, will then contribute to further efforts to work with this population. Specifically, this study analyzes the relationship between the presence of the complex *high levels of anger and hostility combined with having suffered an attachment trauma* and the subjective experiences of *constriction, psychological isolation* and *identification with the Hercules Figure*. Further, for the group of angry/hostile adolescent males with attachment trauma (target population) this study addresses the following two questions:

(1) Is there a correlation between *constriction* and *isolation*?

(2) Is the assumption of a causal relationship between *identification* (dependent variable) and *constriction* and *isolation* (independent variables) in accordance with the observed correlations of the empirical data of this study?

Literature Review

Etiology and Pathology of Violent Boys

The manifestation of violence in adolescent males seems to correlate with a multitude of factors. The major etiological and pathological factors that appear most frequently in the published research are the following: biological factors, attachment factors, socialization factors, and ecological factors other than attachment and socialization (Dodge, 1999; Ellickson & McGuigan, 2000; Gabarino, 1999; Gorman-Smith & Tolan, 1996; Henggeler et al., 1992; Henggeler et al., 1997; Huey et al., 2000; Pollack, 1998; Sylwester, 1999; Wilson & Hernnstein, 1985). The essential characteristics of these variables and the evidence supporting them are presented here.

Biological factors

Genetic elements

There is some evidence that aggressive behavior may be biologically passed from one generation to another. Those studies most often used to demonstrate genetic correlations are those using adoptees and twins (DiLalla & Gottesman, 1991). Adoptee studies are based on the fact that participants share genes with their biological parents but do not share their environments. Therefore, when correlations in behavior arise between biological parents and their adopted children, then some case can be made for genetic heritability.

One such study conducted in Denmark measured the criminal behavior of 14,427 male and female adoptees and their biological and adoptive parents (Mednick, Gabrielli, & Hutchings, 1984). After excluding those cases for which important demographic or criminality information was missing, an analysis was made of around 10,000 parents and 13,000 adoptees. For a little over 4,000 of the adoptees, enough information was available to assess the contribution of biological factors in criminal behavior. For those boys who had neither adoptive nor biological parents with criminal records, 13.5% had at least one conviction. For those with criminal adoptive but not biological parents, 14.7 % had one conviction. With those who had criminal biological but not adoptive parents, 20 % had at least one conviction. And, for those with both criminal adoptive and biological parents, 24.5 % had at least one conviction. As can be seen, there is some indication from this data that heredity in the form of biological predisposition may play a role in criminal behavior.

Another study by Cloninger, Sigvardsson, Bohman, and von Knorring (1982) compared male criminal adoptees who had either biologically criminal parents, adoptive criminal parents, both biological and adoptive criminal parents, or neither biologically nor criminal parents. Those whose biological parents were criminal but whose adoptive parents were not were nearly twice as likely (12.1%) to be criminal as those whose adoptive parents were criminal but whose biological parents were not (6.7%). Those with neither biological

nor adoptive criminal parents had a lower rate of criminality (2.9%), while those with both biological and adoptive parents were at substantially greater risk (40%). This, of course, indicates both genetic and environmental influences are at work in the manifestation of criminality. However, the data here seems to indicate that genetic factors played a larger role than did environmental factors in this particular population.

Like adoption studies, some twin studies indicate a possible genetic component to criminal behavior. These studies make use of the fact that monozygotic (MZ) twins share all of their genes, while dizygotic (DZ) twins share only 50% of their genes (Dilalla & Gottesman, 1991). When studies demonstrate a higher level of concordance in behavior between MZ twins than DZ twins do, then genetic influences are implicated.

In several such studies on criminality, MZ twins showed a higher level of concordance in criminal behavior than did DZ twins (Christiansen, 1977; Mednick & Christiansen, 1977; Rowe, 1983; Rowe & Osgood, 1984). For example, one study involving 3,586 twin pairs in Denmark--a full listing of twins born between 1870 and 1920--was used to come up with a sample of 926 individuals who had been a convicted of any type of crime. When looking at serious offenses only, the probability of finding a criminal twin when another had been convicted was .50 for MZ twins and .21 for DZ twins (Christiansen, 1977). In another study, twins in the eighth to twelfth grades in nearly ever school district in Ohio were given self-report surveys asking how often the individual had engaged in delinquent behavior, and how often their twin had done the same (Rowe, 1983; Rowe & Osgood, 1984). Again, MZ twins showed a higher level of concordance for delinquent behavior than did DZ twins.

Genetic studies involving violent criminality are less clear than those for criminality in general (DiLalla & Gottesman, 1991). Many studies do not differentiate between non-violent and violent behavior when collecting data for criminality. One study that did, however, (Cloninger & Gottesman, 1987), indicated a high level of genetic heritability for violent criminal behavior similar to those seen in the above studies for general criminality. In this

study, both property crimes (non-violent) and crimes against persons (violent) showed high heritability: .76 for property crimes and .50 for crimes against persons. While the influence of environment is clearly higher for violent crimes, genetic factors appear to play an important role.

Neurological elements

Whether or not we accept the hypothesis that aggression may have a genetic basis, there is little doubt that biological factors play an important role in the manifestation of violent behavior. Brain research has revealed specific centers of the brain related to anger and aggression (Bear, Connors, & Paradiso, 1996). The key components to this relationship seem to be the hypothalamus and amygdala (Bear, Connors, & Paradiso, 1996; Sylwester, 1999).

Electrical stimulation of parts of the hypothalamus in cats, for example, elicited behaviors characteristic of fear and anger (Bear, Connors, & Paradiso, 1996). Similarly, when lesions were made in the amygdala of rhesus monkeys, they typically displayed less aggressive behavior, and were often seen to fall in stature in terms of their place in the hierarchy of the group, this indicating their being perceived as less aggressive, and therefore less threatening. Other experiments wherein the amygdala was electrically stimulated or destroyed suggest that its effect on aggressive behavior seems to be by way of its connections to the hypothalamus. When lesions are made in the corticomedial nuclei, which contain neurons that send axons to the hypothalamus, a marked increase in aggressive behavior is observed. This may indicate that these structures normally serve the function of inhibiting or suppressing aggression (Bear, Connors, & Paradiso, 1996).

All of these findings eventually were generalized to humans, and psychosurgery, such as the frontal lobotomy, was quite common early in the twentieth century in treating severe anxiety and aggression. Though less common, amydgalectomies are still carried out, in which electrodes are used to destroy all or part of the amygdala. Some clinical reports claim success

with this procedure in reducing asocial behavior and hyperactivity (Bear, Collins, & Paradiso, 1996).

The centers of the brain relegating anger seem also to be associated with the manifestation of fear. Bilateral ablation of the amygdala in several species has been shown to reduce fear and emotion in general. In one interesting study, a 30-year old woman with bilateral destruction of the amygdala was able to recognize the emotions expressed by people in pictures except for some of those expressing anger, and most of those expressing fear. Adding to this correlation of the amygdala and fear, electrical stimulation of the amygdala in humans has been reported to lead to anxiety and fear (Bear, Connors & Paradiso 1996).

In summary, then, it appears that both the amygdala and hypothalamus are involved in eliciting the behavioral characteristics of both fear and anger. Although the exact nature of this relationship is unknown, it is apparent from studies such as these that any understanding of aggression necessitates a consideration of these neurobiological variables in terms of both their relationship to anger and fear, and the aggressive behavior that manifests as a result of these feelings. Of particular importance is the apparent support this evidence gives to claims that fear and aggression are intimately related. As the reader will see in later sections, fear is often reported to be the underlying emotional state of boys when they display aggressive behavior (Gabarino, 1999).

Cognitive and neuropsychological elements

Seguin, et al. (1995) claims there are three major classes of cognitive impairment that seem to be associated with aggressive behavior: executive functions, verbal abilities, and abnormalities in cerebral dominance. Executive functions refer to those cognitive processes that regulate planning of goal-oriented motor behavior skills, control of behavior in anticipation of consequences, learning of rules and the ability to use feedback cues in controlling behavior, abstract reasoning, problem solving, sustained attention, concentration, and flexibility. Verbal abilities are those that relate to listening and reading ability, speaking

and writing, and memory of verbal material. Cerebral dominance refers to the link between right or left hemisphere functioning (as indicated in being right or left handed) and prevalence of criminality. Verbal abilities and cerebral functioning become linked when left hemisphere damage is implicated, thereby effecting verbal performance.

Although there are some studies correlating poor verbal ability (Moffitt, 1990; Hare & Forth, 1985) and cerebral dominance (Feehan, Stanton, McGee, Silva, & Moffitt, 1990; Gabrielli & Mednick, 1980; Grace, 1987; Hare & Forth, 1985) with criminality, the strongest case can be made for a correlation between executive functioning and aggression (Buikhuisen, 1987; Kandel & Freed, 1989; Moffitt, 1990). In one study involving 177 adolescent boys, Seguin et al. (1995) found that physically aggressive boys were more likely to experience executive functioning difficulties than nonaggressive boys. Further, when investigating the role of executive functioning, verbal abilities, and cerebral dominance, only executive functioning was strongly implicated in their aggressive behavior. As to the specific cause of the deficit in executive functioning, the author's hypothesize that such difficulties need not be due to obvious frontal lobe damage: "Although early clear-cut frontal damage leads to comportmental difficulties in childhood and adulthood, the present impairments in executive functions may be undetectable neuroanatomically and may be solely at a neurochemical or physiological level" (Seguin, et al., 1995, p. 622). Whatever the cause, the central importance of these deficits seems to rest with the impact they have on the individual's ability to modulate aggressive reactions: "an association between history of aggressive behavior and impairment in executive functions most probably reflects an inability to organize several parameters simultaneously, uncover complex rules, anticipate consequences of choices and actions, and reflect abstractly (verbally or otherwise) in order to solve interpersonal and social problems. The capacity to reflect in impaired individuals may quickly be overwhelmed or their abilities poorly activated when they are in a motivational situation that calls for a more adaptive social response" (Sequin, et al., 1995, p. 622).

Hormonal elements

Some evidence exists supporting the possibility that hormones play an important role in manifesting aggressive behavior in boys (DiLalla & Gottesman, 1991). Olweus (1987) investigated the testosterone levels in 15-17 year old boys as they related to both provoked and unprovoked aggression. High levels of testosterone during these pubescent years seemed to be directly related to aggressive behavior under provocation, and indirectly related to aggressive behavior without provocation due to an increase in impatience and irritability. Further, path analysis suggested that the flow of causality was from high testosterone level to increased aggression.

Studies on adult male prisoners (Ehrenkranze, Bliss, and Sheard, 1974; Kreutz & Rose, 1972) have similarly implicated hormonal levels with aggression. In one study (Kreutz & Rose, 1972), prisoners who had been convicted of violent crimes such as murder and rape were classified as being either violent or nonviolent while in prison. Although no difference in the two groups existed in terms of testosterone levels, all of the men who had high testosterone levels had committed violent crimes when in adolescence, whereas none of those with the lowest testosterone levels had done so. In another study (Ehrenkranze, Bliss, and Sheard, 1974), those prisoners categorized as chronically aggressive showed higher testosterone levels than those categorized as nonaggressive.

Despite these findings, the relationship between testosterone levels and aggressive behavior is still unclear. For example, in the Kreutz and Rose (1972) study, high levels of testosterone were found in those males who were young, noncriminal, and who had no history of aggression. The implication seems to be that hormonal levels may play a part in the manifestation of aggression, while being far from a solitary causal factor.

Other physiological elements

Several less studied biological factors seem to relate to aggressive behavior (DiLalla and Gottesman, 1991). Those most often discussed in the literature are covered here.

A serotonin metabolite in the cerebrospinal fluid called 5-hydroxyindoleacetic acid (5HIAA) has been associated with impulsive, chronic violent offending (Lahey, McBurnett, et al., 1995; Linnoila et al., 1983). Linnoila et al. (1983) found that of 36 violent offenders, those who had the lowest level of 5HIAA were more likely to be impulsive and repeat offenders. The implication seems to be that inhibited secretion of this metabolite may lead to reduced ability to inhibit violent impulses.

Insulin secretion has also been implicated as having a role in aggressive behavior (DiLalla and Gottesman, 1991). In one study, Virkkunen (1983) investigated insulin secretion in 23 violent male antisocial personality disorders who were hospital inmates. 16 of the 23 were diagnosed as unsocialized aggressive conduct disorder. These 16 had higher insulin secretion rates than both the other 7 inmates and a control group of 10 personnel from the clinic.

A final physiological consideration in aggressive behavior is heart rate (DiLalla and Gottesman, 1991). Psychopaths, for example, exhibit increased heart rate immediately before anticipation of a threatening event (Hare, 1979; Schalling, 1978). Schalling (1978) claims that this may permit psychopaths to ignore the event when it occurs, and Hare argues that this in turn inhibits fear arousal. Without the experience of fear to inhibit their behavior, these individuals may be more prone to act out in disregard of consequences (Yochelson and Samenow, 1976, 1977). Further, the repression of the fear response may later be released in an outburst of rage (Gabarino, 1999; Pollack, 1998).

Summary of biological factors

Significant evidence suggests that biological factors play an important role in the manifestation of violent behavior. While the exact nature of this relationship is unclear, those working with these individuals must take into consideration physiological disposition when conceptualizing and carrying out treatment. Of particular importance is the apparent relationship between fear and anger in the brain. The seemingly intimate interplay between

the neurological mechanisms of fear and anger make it prudent for clinicians to not only address anger in violent boys, but their fear as well. Also of paramount importance is to recognize that there may be either genetic or other physiological forces at work in violent boys that may make it significantly difficult for them to modify their behavior. Such a consideration will prompt the clinician to exercise patience during the treatment process. Further, with respect to these biological factors, boys can be encouraged to take the cognitive-behavioral position that although they may change significantly, there may be forces at work in them over which they will have to exercise continual vigilance.

Attachment factors: The lost boys

James Garbarino, Ph.D. (1999), Co-director of the Family Life Development Center and Professor of Human Development at Cornell University, draws on over twenty-five years of working with violent boys to come up with the descriptor *lost* in defining the essential condition of these individuals. He contends that at a young age these boys are faced with conditions that prove to be more than they can process either emotionally or cognitively. Just as one would run from the threat of physical danger to one's life, these boys' souls withdraw in a flight of desperation: "when forced to live in hell, the soul withdraws, perhaps shutting itself off from the world outside in a desperate attempt at preservation" (Gabarino, 1999, p. 34). Gradually, this dissociation grows into a personality structure characterized by coldness and repressed rage. The world becomes a dangerous place from which the boy must protect himself, and shut off from his own emotions, he is unable to conceptualize the feelings of others. This leads to an inability to feel empathy for anything or anybody: "when a boy's own emotional life is closed off and locked away, when he can't accurately and openly feel his own feelings, it is unlikely that he has much of a basis for being empathic with others" (Gabarino, 1999, p. 139). The combination of intense fear and rage and the lack of awareness of how their actions might effect others makes these boys vulnerable to fits of violence without any consideration of the consequences of their actions: "A boy who has organized his

inner life around the need to protect himself from his feelings of victimization and unworthiness is unlikely to pay attention effectively to the feelings of others, especially to their feelings as victims" (Gabarino, 1999, p. 238). It may only take a single episode of teasing or ridicule for the boy operating out of this personal mythology to react as if his very existence is being threatened. While their behavior is reprehensible and unfathomable to those around them, to these boys they have simply acted out of necessity: "They do what they have to do—*as they see it*. Understanding this horrible reality is very difficult; it requires a kind of openheartedness and openmindedness that is hard for anyone to achieve, particularly in today's political and emotional climate" (Gabarino, 1999, p. 124).

It is not necessary for overt and traumatic abuse to take place in order for this condition of being lost to manifest (Gabarino, 1999; Pollack, 1998; James, 1994). Rather, the essential element which seems to characterize those boys who become lost is a lack of connection and attachment to a primary caregiver (Gabarino, 1999; James, 1994). Drawing on a wide range of research and his own experience, Gabarino (1999) claims that without receiving the love and caring they need at an early age, boys develop a sense of shame about their very existence. Feeling rejected, they come to believe that there must be something wrong with them: "Children who are rejected by one or both parents are likely to attribute the rejection to something lacking in themselves. 'What's wrong with me that my parents don't want me?' is their inevitable, often silent, question" (Gabarino, 1999, p. 52). This reality is too overwhelming to process, and the defense mechanisms that most often seem to be employed are repression and projection. It is simply too painful to believe that one is not loved by the very creators of one's life. In some cases, the pain is simply cut-off with the greater number of one's feelings, effecting a psychological appearance that is stilted and cold. In other cases, the primary orientation to the world is inadequacy, with one's feelings of rejection effecting a potent pain that manifests as rage.

Gabarino's (1999) position is supported by studies that indicate low self-esteem to be a correlate of delinquency (Kernis, Grannemann, & Barclay, 1989; Ruchkin, Eisemann & Haggloff, 1999). In one such study involving 187 delinquent adolescents, and a control group of 103 normal adolescents, Ruchkin, Eisemann & Hagglof (1999) reported that the delinquent adolescents scored consistently lower on self-esteem than did the control group. Further, their feelings of inadequacy seemed to be intimately related to their acts of aggression.

Whether or not low self-esteem is a contributing factor in violence has been a point of considerable controversy in the professional literature (Baumeister, Smart, & Boden, 1996; Bushman & Baumeister, 1998). Emerging studies have taken a different position, stating that contrary to low self-esteem being correlated with anger and violence, a person's inflated sense of self is actually more likely to result in outbursts of anger. This position holds that those who operate out of an inflated sense of entitlement and self-love feel deserving of praise and acceptance. When these forms of attention are not received, or when criticism is levied at these individuals, they become angry and hostile. The issue supported by research in this area (Bushman & Baumeister, 1998) is not that self-esteem is a factor in aggression, but that threatened egotism (a form of cognitive dissonance in regard to the individual's narcissism vs. feedback received) correlates with elevated anger and aggression.

What seems important on the issue of self-esteem, however, is how authentically the individual feels a sense of self-caring and self-worth (Gabarino, 1999). Those who suffer from the lost boy condition as described by Gabarino (1999) may indeed seem to like themselves and may even be narcissistic. This doesn't mean, though, that they actually have high self-esteem. Rather, what seems to be happening, in psychoanalytic terms, is that the individual is operating under a reaction formation, sublimating their low self-worth with inflated egotism and self-entitlement. They may report having a high self-esteem, but this facade is a weak foundation, and under criticism or ridicule they may act out in fits of rage.

One study poignantly demonstrating this phenomenon measured the tendencies of 25 men and 25 women to experience anger and hostility in correlation with their being categorized according to both stability of self-esteem and level of self-esteem (Kernis, Grannemann & Barclay, 1989). Those most likely to experience anger and hostility were those rated as having unstable high self-esteem—that is, they reported feeling high self-esteem, but these feelings were tenuous as compared to those who actually felt comfortable with themselves. Therefore, while inflated feelings of self-worth and entitlement may indeed correlate to anger and violence (Bushman & Baumeister, 1998), these feelings seem to be mere facades for the actual low self-worth of the individual. It would seem, then, that interventions with these individuals would still need to address the issue of low self-esteem in their rehabilitation.

Attachment trauma

Beverly James (1994), faculty member at Harvard Medical School, describes attachment as "a reciprocal, enduring, emotional, and physical affiliation between a child and a caregiver" (p. 2). She terms the condition that Gabarino (1999) has seen in lost boys as *attachment trauma.* To her, lack of attachment is synonymous with death for the young child: "Loss of the primary attachment figure represents a loss of everything to a child—loss of love, safety, protection, even life itself" (James, 1994, p. 7).

Attachment begins at birth, and the consequences of a lack of attachment are apparent early in the child's life. One study at the Minnesota Mother-Child project measured the behavioral patterns of children who were parented within five various groups: 1) physically abusive, 2) verbally abusive, 3) neglectful or uncaring, 4) psychologically 'unavailable' (withdrawn, unemotional, or unresponsive), 5) and normal (Egeland & Strouge, 1981). The mothers and children were followed from birth to two years. By one year, the physically abused children were more than twice as likely to exhibit attachment trauma symptoms such as being anxious and avoidant. The same pattern existed at 18 months. Both the emotionally

and physically abused children were more likely to exhibit anger and frustration. Interestingly, those children whose bonds seemed to be most effected were those of the psychologically unavailable mothers. By 18 months, none of them had developed an attachment to their mothers in comparison to nearly three-fourths of those from the normal mothers having successfully attached (Egeland & Strouge, 1981).

John Bowlby (1951; 1958; 1969) claimed that maternal deprivation as described in this study can be correlated with nearly all later behavioral, including delinquency, problems. More specifically, Michael Rutter (1972) claims that the lack of an attachment bond may lead to psychopathy, a personality structure that often manifests violent behavior, lack of guilt, and an inability to form healthy relationships. In one study supporting these positions, two hundred eighty-eight inner-city minority adolescent males were studied to identify correlations between family relational patterns and delinquent behavior (Gorman-Smith, Tolan, Loeber & Henry, 1998). Those identified as serious chronic offending (violent crimes) were more likely to have families characterized by lack of parental involvement and parental neglect. In another study involving 1,221 9^{th} and 10^{th} grade adolescents, parental responsiveness and demandingness was negatively correlated to aggressive behavior; that is, the more responsive parents were to emotional and developmental needs, and the more demanding they were of appropriate, non-violent behavior, the less likely were the subjects to exhibit behaviors such as hitting peers, carrying a weapon to school, or threatening a peer with a weapon (Jackson & Foshee, 1998). These studies support the position that lack of parental involvement and a strong attachment bond between a caregiver and child closely correlate to aggressive behavior.

Also resulting from attachment trauma is a belief system that leads to a pattern of terminal thinking, a condition characterized by hopelessness and lack of orientation to the future (Gabarino, 1999). Life, so far, has proved to be hopeless, and this personal myth pervades everything these boys do: "Those who work with boys who have a history of

psychological and social impoverishment, the lost boys, come to expect a different attitude [than hopefulness and joy], a different orientation toward the future. Many of these boys come to prison with a foreshortened sense of the future, with terminal thinking" (Garbarino, 1999, p. 154). This claim is supported by Ruchkin, Eiseman & Hagglof (1999), who report that those subjects who were delinquent in their study also tended to display a sense of uncertainty about their identify or purpose. As Gabarino (1999) claims, a boy who is rejected and for whom the world is a dangerous place loses any sense for meaningfulness in life: "a boy who is cut off from this feeling of belonging to a world that makes sense is set adrift. He lives in a world without purpose and faces a crisis of meaninglessness. As a result, he has no guides, no transcendent models for knowing what classical philosophy dating from Plato has always called 'The Good'" (p. 154). It is no wonder, then, Gabarino argues, that such boys do things that defy what the majority of us would define as "good."

Also important in this phenomenon is the belief that the world at large is to pay for the losses suffered. In the study by Ruchkin, Eisemann & Hagglof (1999) the delinquent subjects displayed a higher degree of self-directedness than did those in the control group. This belief system involved a tendency to blame others for their problems, and an orientation in relationships to self-entitlement. Similarly, Alice Miller (1983) claims that when a child is abused or neglected, many grow up with a sense of entitlement—that the world owes them for what they didn't get growing up. As Gabarino (1999) summizes: "What shame a boy feels when he is abandoned by his mother [or father]! What lengths he will go to in order to defend himself against these feelings. Inside, he 'forgets' so that he doesn't have to feel. Outside, he punishes the world so that he feels avenged" (p. 44).

The central theme in the life of a lost boy, then, seems to be fear: fear that one is a nothing and in some way defective, fear that one may be in danger from those around him, and fear that the world itself is a dangerous place (Gabarino, 1999). Poignantly demonstrating this reality in a study on the psychological typology of homicidal aggression,

Kudryavtsev & Ratinova (1999) found that among the varying types of aggressive males, all perceived the world from the standpoint of fear. The study involved 180 males ranging from 18 to 45 years and characterized varying aggressive types according to cognitive, emotional and behavioral patterns. Their orientation to relationships were characterized as "mistrustful, suspicious, and hostile," (p. 4) believing that "situations, including objectively relatively neutral ones, to be conflictual, provoking them personally," (p. 5) and a belief that "the situation [provoking violence was] genuinely dangerous either to themselves or to the values they upheld and they were unable to see a way out" (p. 7).

Summary of attachment factors

The lost boy, then, is adrift in the world, constantly in battle against what he perceives to be a dangerous universe. He is protecting himself from the immensely painful inadequacy and shame that he feels through either repressing his feelings or acting them out on whomever may come into his path. Lack of attachment to an early care-giver results in the fear that he is unlovable, and this feeling is counteracted by an elevated sense of entitlement, and a constant pattern of hurt sublimated by aggression.

Socialization factors

Socialization refers to the process whereby one becomes a functioning member of a particular society (Wilson & Herrnstein, 1985). The development of socialization involves interactions between the individual and those in his or her nuclear family, extended family, school, peer group, neighborhood, city, country, etc. When socialization is effective, the individual is able to function in a socially acceptable way, meeting his or her needs while also adhering to the major norms of the culture.

Violent boys suffer from impairment in the socialization process (Gabarino, 1999; Pollack, 1998; Wilson & Herrnstein, 1985). Their anger and aggressiveness speak in obvious ways to their difficulty in serving both their own needs and becoming a viable member of society. Two primary elements seem to be involved in this process: those of the family, and

those of the culture (Gabarino, 1999; Huey et al., 2000; Pollack, 1998; Wilson & Herrnstein, 1985). The major characteristics of these elements are presented here.

Family elements

Family elements of socialization involve both parenting practices and family processes (Gorman-Smith, et al., 1996). Parenting practices refer to those approaches parents use in disciplining, supervising and monitoring their children (Darling & Steinberg, 1993). Family processes refer to the overall functioning and characteristics of the family (Gorman-Smith, et al., 1996). This includes values held, emotional warmth between members, support provided between members, and organization and communication patterns within the family system.

Those parenting practices that tend to correlate to violent adolescent behavior are those that involve poor monitoring, overuse of coercive discipline, inconsistent discipline, and the absence of positive parenting (Patterson, 1982, 1986). These practices often lead to the kind of attachment trauma and lost-boy condition discussed above (Gabarino, 1999). Also implicated, however, are those that involve permissiveness and lack of limit setting (Greenstadt, 1982). When children have few limits and do not receive clarification on what behavior is permitted, they are more likely to act in unacceptable ways. Further, a pattern of permissiveness can lead to expectations on the part of the individual that any desire they have should be met. When this does not occur, the frustration can then lead to anger and aggression (Wilson & Herrnstein, 1985).

Those aspects of the family process that can correlate with violent adolescent behavior are low levels of parental warmth, rejection of the child, lack of affection, low family cohesion, and a high degree of conflict and hostility (Henggeler, 1989; Tolan & Lorion, 1988; West & Farrington, 1973). Obviously, these are patterns that relate directly to attachment trauma and to the manifestation of Gabarino's (1999) lost-boy condition. In terms of socialization, these kinds of family processes can result in cognitive-behavioral patterns on the part of the child that reinforce violent acting out behavior. Modeling the hostile and

chaotic patterns in their family of origin, these individuals expect it to be permissible to act this same way in other relationships.

The impact of parenting practices and family processes on the behavior of violent adolescents has been demonstrated in studies designed to improve these dimensions (Chamberlain & Reid, 1998; Henggeler, Melton & Smith, 1992). In one study, Chamberlain & Reid (1998) found that those male adolescents who participated in a multidimensional treatment foster care (MTFC) program were more likely to reduce violent and delinquent behavior than those who participated in a typical group care (GC) program. The MTFC program used interventions designed to improve adult supervision, discipline practices, warmth and support on the part of the foster parents, as well as to make interventions in peer group associations and academic performance. In terms of parenting, techniques of consistent, fair, and positive parenting (authoritative style) were taught to foster parents in hope to improve behavioral patterns in the boys. Family process techniques such as communication skills and behaviors conducive to the development of warmth, support and cohesion were also taught to the foster parents. Also emphasized were techniques of close supervision, limit setting, and flexibility of decisions based on the needs of the individual child. The author's concluded, "placing delinquents in fresh, strong, and well-trained families has the potential of changing their delinquent trajectories" (Chamberlain & Reid, 1998, p. 630). This study was built upon various other positive outcomes of Multisystemic Therapy (MST) that have demonstrated the effectiveness of improving parenting practices as well as family processes (Henggeler, Melton & Smith, 1992; Henggeler, et al., 1997; Huey, et al., 2000).

Cultural elements: The boy code

Adding to the complications resulting from attachment trauma and impaired parenting practices and family processes are the set of social values in America that largely define what a boy or man is supposed to be (Pollack, 1998). William Pollack, Ph.D., codirector of the

Center for Men at McLean Hospital and Harvard Medical School, defines this set of values as *The Boy Code.* He outlines four injunctions which characterize this value set: the *"sturdy oak," "Give 'em hell," the "big wheel,"* and *"no sissy stuff"* (Pollack, 1998, p. 124). This masculinity ideology was first identified by Brannon (David & Brannon, 1976), and has continued to be an important foundation in understanding the psychology of American males (Levant, 1996). More recently Pleck (1995) claimed that there is definite set of standards that the American male is expected to adhere to such as the boy code, and that have negative consequences. Levant, Hirsch, Clentano, Cozza, Hill, MacEachern, Marty & Schnedeker (1992) have also expanded on this ideology, offering such categories as avoiding femininity, restricting one's emotional life, being tough and aggressive, being self-reliant, the drive for status above all else, objectifying sexuality, and fear and hatred of homosexuals. Both the boy code and the categories described by these categories have become standardized to the extent that instruments such as the Brannon Masculinity Scale (assessing boy code characteristics) (Brannon & Juni, 1984), and the Male Role Norms Inventory (Levant et al., 1992) are used to measure these characteristics in males.

The focus for the purposes of this research will be on the boy code, as it is currently an active ideological construct that has been successful in identifying those adolescent males both potentially and actively aggressive (Pollack, 1999; Levant, 1996). In terms of socialization, it has been implicated in relationships with parents, extended family, peers, school and community influences, and those of the American social system at large, as images of the boy code appear in advertisements, movies, and in the caricatures of national heroes (Pollack, 1999).

As one recent example of over ten years of clinical work and research in this area, Pollack (2006) presents a study of the *boy code* characteristics in 175 males aged 12-18. They were given a battery of the following tests to measure all aspects of intrapsychic functioning:

1. Self-esteem (the Coopersmith Inventory).

2. Traditional views of masculinity (Pleck's Male Role Attitude Scale—modified for young men and boys).
3. Egalitarian attitudes toward boys and girls, men, and women (King and King's Sex-Role Egalitarianism Scale [SRES]).
4. Inner attitudes about gender roles (a complete-the-sentence questionnaire developed specifically for this study to generate rapid responses to probative questions about boyhood and gender dilemmas in such areas as sports, relationships, gender roles, and sex).
5. Unconscious attitudes and feelings about other people, self, and relationships (a modified Thematic Apperception Test [TAT]—or picture-story exercise—).
6. Depression and sad feelings (Beck Depression Inventory). (Pollack, 2006).

In addition to the battery of tests, the subjects underwent one-to-one, two hour interview designed to develop an understanding of the underlying feelings of boys—those feelings they may not feel comfortable sharing openly. The following issues were addressed:

1. Extent of emotional connection to (or disconnection from) mother and father, relationship with larger family, friendships with girls and other boys, use of talking to communicate emotion, and use of action (including sports and play) to release emotions.
2. How expressing emotions affects boys' self-esteem; romantic relationships; interpersonal conflicts; emotional pain; masculinity and the fear of being shamed by peers; teasing, razing, and bullying; and sexuality and sexual orientation.
3. Advice they would give to younger boys on maintaining their integrity and identity.
4. Handling complex feelings such as shame, vulnerability, anger, and sadness.
5. The role of sports in their lives and the mentors and heroes (male or female) in their life and why they look up to these individuals (Pollack, 2006, p. 92).

The results of the study indicated the following traits in these boys:

1. Boys feel deeply conflicted about what is expected of them as males in American society (i.e., about what behaviors and attitudes reflect healthy masculinity).
2. As they grow older, the inner conflict boys feel about masculinity is exacerbated, and they feel compelled to hide their confusion by acting more self-confident than they truly feel (a sense of false self-esteem, leading to increased sadness).
3. Boys have grave concerns about growing up to be men: They overwhelmingly see manhood as filled with unrewarding work, isolation from friends and family, unhappiness, and disappointment.
4. Despite the outward appearance they often give of being cheerful and contented, many boys of all ages feel deep feelings of loneliness and alienation. (Pollack, 2009, p. 95)

Over his many years of practice and research, Pollack (1998) developed several cognitive-affective and behavioral syndromes that characterize those living from the above attitudes. The essential features of these are presented here.

The sturdy oak

As a *sturdy oak,* a man should be independent, stoic and stable (Pollack, 1998). Showing weakness is a taboo, and should be avoided. Crying or complaining are signs of being less than a man. The mythos here is to be the tough warrior, never showing one's weak side to the enemy. Eventually, however, this condition becomes more than most boys can handle: "The 'sturdy oak' requirement drains boys' energy because it calls upon them to perform a constant 'acting job'—to pretend to be confident when they may feel afraid, sturdy when they may feel shaky, independent when they may be desperate for love, attention, and support" (Pollack, 1998, p. 24).

Give 'em hell

Give 'em hell refers to the mythos that to be a man is to be courageous, reckless, afraid of nothing. Such mythic heroes as John Wayne, Clint Eastwood and Bruce Lee are listed by Pollack (1998) as portraying these desirable qualities for boys. The larger than life, mythical proportion movie screen images of these figures fills boys with an overwhelming desire to emulate their characteristics.

The big wheel

The *big wheel* injunction holds that boys and men should strive for dominance, status, and power. They should avoid feelings of inferiority or shame at all costs, keeping cool and staying in control. The message to boys is that power and dominance are the desired qualities in men, and that the way to getting there is by avoiding vulnerability (Pollack, 1998).

No sissy stuff

No sissy stuff means avoiding anything or any feelings associated with femininity: "Perhaps the most traumatizing and dangerous injunction thrust on boys and men is the literal

gender straitjacket that prohibits boys from expressing feelings or urges seen (mistakenly) as 'feminine'—dependence, warmth, empathy" (Pollack, 1998, p. 24). Exhibiting vulnerability translates into possible harm to the individual, and reflects weakness to one's peers.

Like Garbarino (1999) Pollack (1998) believes the central problem with troubled boys is a lack of attachment. He claims that the shame resulting from not feeling connected to a primary caregiver leaves a boy feeling as if something is wrong with him, thereby leaving him without the sense of hope and meaning that Garbarino discusses above. While some cases of attachment trauma result from psychopathological and socioeconomic factors, others may take place subtly as mothers and fathers unconsciously live and raise their sons under the boy code. In order to help them develop independence and man-like qualities, boys are encouraged to separate from their mothers as soon as possible, are taught to be tough, stand their ground, stop that whining, be a little man, etc. The result is evident in the behavior of these boys: "I believe that the overwhelming number of elementary school boys diagnosed with conduct disorders or with what is often called attention deficit disorder, or ADD, are misbehaving not because they have a biological imbalance or deficit but because they are seeking attention to replace the void left by their mothers and fathers" (Pollack, 1998, p. 36).

Ironically, in terms of socialization, those adhering to the boy code are, to some degree, successfully socialized. The value system they are living is that which is reinforced and, in some ways, required by the culture at large (Pollack, 1998). The very behavior that is rejected by society is reinforced by it. It would seem, then, that any effort to rehabilitate them must also address the pathology of the culture in which they are living. While many of them may realize that what they are doing is rejected by society, they may not understand that society has contributed to their manifesting these behaviors. Coming to understand this paradox is paramount in their successful recovery.

Conclusion to socialization factors

Socialization is the process whereby the individual becomes a viable member of society, able to pursue his or her needs while living productively with other members of the society. Socialization problems correlated to violent adolescent males are those related to parenting, family processes and the cognitive, affective and behavioral patterns reinforced by the *boy code* value system reinforced in American culture (Levant et al, 1972; Pollack, 1998). Dysfunctional and abusive parenting, faulty family processes, such as deficits in cohesion, warmth and communication, all correlate to violent behavior in these boys. Compounding this problem is the set of values reinforced by the boy code, all of which glorify the underlying pathology that often leads to violent behavior. Interventions with these boys, then, must address this impaired syndrome of socialization, both from the standpoint of the obvious deficits incurred through faulty parenting and family processes, and the more subtle reinforcements of violent behavior espoused by the American culture at large.

Concluding remarks on etiology and pathology

The manifestation of aggression in adolescent males seems to correlate with a combination of variables: biological factors, attachment trauma, impairment in socialization, and other ecological factors. Most research supports that when conceptualizing the etiological factors in these individuals, all of these variables need to be considered (Gabarino, 1999; Pollack, 1998).

Whatever we attribute the cause of the behavior to, however, the essential task seems to be to acknowledge and address the cognitive, affective, and behavioral patterns currently resulting in aggressive acting out (Yochelson & Samenow, 1976, 1977). Paramount among these are the individual's feelings of fear and self-entitlement, as well as his tendency to adhere to the dictates of the *boy code*, which further reinforce aggressive behavior. Biological factors are also important, inasmuch as the clinician needs to be aware that a long-standing physiological basis for aggressive behavior may contribute to the difficulty the individual has

in changing their aggressive patterns. The intimate relationship between the mechanisms for fear and anger in the brain lend evidence to the position that the fear state induced by the attachment trauma, and the aggressive behavior reinforced by the *boy code*, are buttressed in some individuals by an underlying biological predisposition to aggression. Also important is the need to address other ecological concerns within the systemic environment of the individual. Academic difficulties, issues of gender, ethnic group, socio-economic status, and sexual orientation, among others, must be addressed in any treatment protocol with these boys.

The present study is concerned with one population of violent adolescent males—those who have suffered from attachment trauma. Therefore, based on the research presented, it was designed based on the presupposition that violent adolescent males of this population are operating from a cognitive-behavioral position of fear and desire: that is, that pervading sense of fear—however repressed—induced by attachment trauma that leaves the boy feeling that the world is a dangerous place and that others are to be feared; and, in terms of desire, that belief system on the part of the boy that the world is to pay for the losses they have suffered. This study also takes as a presupposition that these individual characteristics of boys who have suffered attachment trauma are further reinforced by the dictates of the boy code, which subtly supports their behavior through the injunctions of the *sturdy oak*, *give'em hell*, the *big wheel*, and *no sissy stuff*.

In order to measure these factors, the Construct Grid of George Kelly was selected. This instrument allows for the collecting of data that provide the Personal Construct System of the individual. It is believed that the construct systems of violent adolescent males who have suffered attachment trauma are characterized by a higher degree of psychological isolation and constriction than those of normal adolescent males. Further, it is believed that these males will identify with the Hercules figure more on the construct grid than will those from a normal population. The basis for these expected correlations is presented here.

While both constriction and psychological isolation are believed to be related to the experience of attachment trauma, identification with the Hercules figure is believed to be associated to both attachment trauma and these dictates of the boy code. Because this is an important part of the investigation undertaken here, a thorough discussion of the Hercules myth and its relationship to the concerns of this study is warranted. Understanding how this story has been used previously along with the theoretical considerations forming the interpretation used by this researcher will make clear the connections between this myth and this study. It is also important for the reader to understand how the story was told to the subjects of this study, and so a retelling of the story along with the interpretations used is also provided.

Background for the Hercules Myth

The Hercules myth in psychology

The Hercules myth itself has been used scarcely in psychotherapy. The primary exception seems to be in psychoanalysis, where it is termed the Hercules complex (Digney, 1998; Greenstadt, 1982; Seidmann, 1978; Slater, 1968). This understanding of the myth places it primarily within the context of the Oedipal complex, specifically relating to the need of the male to successfully separate from the mother in order to develop independence as a man.

In one interpretation based on Mahlerian psychoanalytic ego psychology, Greenstadt (1982) claims the following: "The exhortatory use of myths to aid in binding individuals to the prevailing culture suggests further that failure to resolve the rapprochement crisis with its yielding up of infantile omnipotence gained through fusion with the all-powerful (and dangerous) mother of symbiosis, will lead to a failure of superego formation, destruction of the capacity for sublimation and work, and ultimately a condemnation to the loss of the hope of success in mastering the world and in stabilizing one's self-esteem. The Greek standards of democracy, conquest, and creativity are viewed as upheld by the scapegoating of Heracles

[Hercules] through his enslavement to others. The ultimate resolution of Heracles' rapprochement conflicts leads to his achievement of immortality: he is able to become an adult man at last, joined harmoniously to an exalted version of his own culture on Mount Olympus" (p. 22).

The Hercules complex from this viewpoint, then, entails the struggle of one who is lacking differentiation due to not having successfully transcended the infantile state of symbiosis with the mother. One might see Hercules as a grown, self-centered, reactive child, who expects to continually receive the babe-care that is awarded the helpless infant. When this attention is lacking, he reacts in fits of rage destructive to both himself and those around him. He continually sways between wanting to individuate and wanting to remain in the bliss of the symbiotic relationship. His various labors are interpreted as representing a developmental process laden with this struggle. Eventually, because he transcends the symbiotic relationship, he is able to develop healthy relationships and experience a degree of self-autonomy and worth: "As a god [the triumph of Hercules at the end of the myth], Heracles is depicted as having resolved the oedipal conflicts—as having, in effect, given up the parents as instinctualized objects, thereby subordinating himself to them. He is now capable of a permanent, non-incestuous object relationship with Hebe, from which union oedipally unthreatening children are born: Peace and Security" (Greenstadt, 1982, p. 21).

Other psychoanalytic interpretations of the Hercules complex vary according to the particular stream of psychoanalysis being represented (Greenstadt, 1982). However, all to some degree address the issue of the Oedipal conflict. Slater (1968), for example, claims that Hercules represents one who is reacting against the energies represented by the mother (symbolized in the Hercules myth by Hera). His interpretation holds that the mothers in the male-dominated early Greek life were unconsciously vengeful and ambivalent toward their male children, due to their oppression and lack of standing in the social order. The mother's rejection and hate, and the boy's perception as sometimes being used as a compensatory

phallic-envy device, resulted in over-exaggeration of masculine characteristics as are displayed in Hercules. The boy in this state is afraid to be engulfed by the mother, and is also unconsciously angry at her for using him. He senses unconsciously that he must seek out and act out the exact opposite characteristics as are represented by the feminine (Slater, 1968).

Other interpretations of the Hercules complex exist outside of psychoanalysis. Jungian analyst Marita Digney (1998), for instance, relates the essential meanings of the Hercules complex using the O.J. Simpson story as an example. This interpretation closely parallels that which identifies Hercules as living according to the boy code, given the heroic status of O.J. Simpson as a symbol of the ideal man to the detriment of feminine values: "Can we stretch our imaginations to grasp the possibility that it is not only the real Nicole whom we mourn? Can we see her fate as the fate of our own life-giving feminine soul? Can we imagine her as an aspect of ourselves which we often batter and abuse? Can we see the blood-drained body of one woman as representing the millions of other victims of violent crime and through this, begin to comprehend the enormous hostility toward the feminine with the Hercules mentality? Can we, in an imaginal way, sense the diminishment of the figure of the accused and know him to represent our own unrelated, blindly brutal masculine urge for power?" (p. 92).

Although claiming that Mr. Simpson appears to have had a nurturing mother, Digney (1998) claims that he was rejected by the feminine in the form of the culture at large. Growing up poor, indeed, suffering from rickets as a child, Digney (1998) claims that he was rejected by the cultural mother (goddess) of American society: "That in a rich and abundant nation like the Unitied States, poverty exists for a shockingly large percentage of children is an indication that the culture is manifesting a hollow mother to a significant number of its members. The result of this will, from an archetypal perspective, yield equally shocking future violence" (p. 88). While it seems speculatory to correlate the apparent homicidal violence of this individual to poverty, I agree with the claim that Digney (1998) makes in

terms of the effects of lack of nurturing on the individual: "For the truly unmothered, there exists a deficit which is never filled. For such a person the attachments to mother and subsequently to the unrealizable necessity of the constantly available woman are very strong because the need for mother has never been satisfied. It is said that Hercules once cavorted with and impregnated fifty women in one night. In the hyperbole of myth the point is made, that the appetite for sexual conquest, like the need for mother, can be insatiable. Often such individuals develop a sentimental overvaluing of the mother, even deification of her. This creates a psychological reality, or as the Greeks would say, fate, which colors the experience of a lifetime. But most importantly for our discussion here, the unmothered child, male or female, is aware of this betrayal and grows up an angry, hostile, and violence-prone individual. This child has been meanly cheated out of its birthright to thrive and knows this at some level of awareness" (p. 88).

Although the story of Hercules includes tragic qualities, it is important to recognize it as an ultimately hopeful narrative. It is true that Hercules represents the destructively orientated masculine, warrior-like energy, that tromps its way through relationships, living by the boy code, and with the rage of the lost boys. It is vital to understand, however, that these qualities of warrior energy—even the boy code and the predicament of the lost boys—are potential gifts that when directed properly can lead to a reconciliation with the feminine: one that welcomes these nurturing, cooperative qualities, with the vital energies of Hercules. Robert Bly (1990) in his work with men using the concept of the *wild man* has demonstrated how effective and healing a communion with these energies can be. Jung (in Campbell, 1971) in his concept of the anima and animus was also alluding to the need to harmonize one's warrior-like male energies with those of the feminine. The objective is not to repress or deny these potentially destructive qualities, but to mobilize and direct them toward healthy development and relationship building.

The foundation of an existential interpretation of the Hercules myth:

Joseph Campbell, Carl Jung and Otto Rank

Joseph Campbell

The need for a structured order to one's existence has been exemplified by a number of movements in psychology and mythology that have striven to help people order their lives through narrative forms (Campbell, 1949; Jung, 1959; Rank, 1936a; 1936b). Much of this work seems to be grounded in the work of Joseph Campbell and his accessible and far-reaching studies of world mythologies and their relevancy to the contemporary individual (Campbell, 1949). The journey involves the call, the initiation and the return with the boon.

The impact of this work on contemporary culture is so far reaching that we even see it in popular forms. George Lucas, for example, used Campbell´s ideas for his epic film series Star Wars. We see Luke Skywalker called, for example, in the first episode. He feels this need to do something besides work on his farm. Once called, the hero must undergo initiation. This involves many struggles, including those requiring one to face death. However, the outward struggles contained in the many stories of heroes (Arthurian knights, Greek heroes, and Luke Skywalker) are symbolic of the inner journey—the struggle to face one's own demons. Luke, for example, is forced by Yoda in Return of the Jedi, to go into the dark forest. There he finds Vader with whom he is to do combat (this is Arthurian legend stuff). When he vanquishes his enemy and removes his mask, however, he sees his own face. So, the demons are in us, and we must face them to be whole. Through undergoing this process, one then derives strength from the challenges and learns to use the power of one's demons (perhaps a better word is the daimonic, something discussed very thoroughly in Rollo May's (1969) work Love and Will). The goal is not to expel or kill the demons, but rather to transform them from vices to virtues.

Campbell (1986) terms this process the catharsis. He draws on the work of James Joyce (1993) who recognized that the term catharsis had a far different meaning for the

Greeks than it does for most of us today. Rather than relating to a purging of feelings, it denotes the process of transformation of feelings. Specifically, fear and desire—the two primary feelings that keep all of us in pain—are to be transformed into pity/compassion and terror/humility, respectively.

Joyce (1993) was basing his idea on those given by Aristotle (in Mckeon, 1941). However, because Aristotle did not define pity and terror, it was left for history to do so. According to Campbell (1986), this has led to a recurrence of misunderstanding among scholars as to what Aristotle meant, the primary definition usually being that already mentioned: that catharsis means the purging or release of pity and terror through experiencing them deeply. The following is a correction, so to speak, as given by Joyce and Campbell.

Because we are all to some degree afraid of suffering—through being hurt by others, losing those we are close to, or by facing the reality of our own deaths—we each operate primarily from fear of the occurrence of any of these forms of loss. We keep our distance in relationships, we assess whether or not our companion is potentially a danger to us, we see the world as a dangerous place from which we must protect ourselves. All of these activities are related to our ego and its sense of self-preservation. The price we pay for this is disconnection: because we are always protecting ourselves we keep our distance from relationships and from life. Our experiences, then, are deadened by a lack of depth and presence.

The answer to this dilemma, according to Campbell (1986), is to transform fear into pity/compassion. In a catharsis, this happens through identifying with another person—specifically, with their suffering. For the Greeks it meant seeing Oedipus or, as we shall see, Hercules suffering. Once we feel the anguish of the other person, we are no longer afraid. We see that they suffer just as we do, and that they are not the threat that we had imagined. Jung (in Campbell, 1971) said that the healing power of realizing that we share suffering with

all of humanity can be immensely healing. This is the meaning of transforming fear into pity/compassion.

Desire is intimately related to our fear. We desire more status, more power, more money or more attention. Because we operate out of wanting more, we are never satisfied. Because we are never satisfied, we constantly feel pain. The successful catharsis here, according to Joyce (1916) and Campbell (1986) is a development of humility out of the epiphany of being confronted with the sublime: specifically, that energy which is responsible for both the bringing into being and the extinguishing of our lives. In such an epiphany, the petty desires that we have been clinging to lose their power against the mixed up joy and terror of seeing the face of "God," in whatever form it takes. Further, because through this epiphany we now recognize the same energy behind both tragedy and joy, we become able to weather both with the same degree of satisfaction.

But this process does not relate solely to being confronted with external power symbols. The successful process of catharsis also involves the epiphany of seeing one's *own* face: specifically, coming to recognize one's own narcissism and ego-centric patterns that keep one in the cycle of desire. In Campbell's (1986) example he relates the story of the Buddha as he faced both fear and desire under the Bodhi tree. The Buddha became enlightened as he let go of his ego—his attachment to fear and desire—and was thus free to see the truth. Part of that truth was to recognize that "All life is sorrowful;" that is, that we all share suffering—this realization leads to pity/compassion. A no less part of that truth was to realize that by saying "Yes!" to the sufferings of the world, we are free from the attachments of the ego which is constantly trying to keep from suffering. If we accept that we will suffer, it no longer has power over us—we are no longer afraid of it.

Part of this process, however, requires that we recognize that we ourselves are part of the cycle that involves the world being full of suffering. In our drive for protection (fear) and our crusades for acquisition (desire), we participate in the sufferings of others. Inasmuch as

we are able to recognize our own part in this process, we develop terror at our own reflection. We all have forces in us that are potentially destructive—this is the idea behind this catharsis. Scott Peck (1983), in his book The People of the Lie, claimed that the most destruction comes from those who refuse to recognize their own potentiality for destructive behavior. Likewise, Jung (in Campbell, 1971) claimed that the only difference between a person who is psychologically sick and one who is not, is that the one who is not sick knows that they are sick. This is the meaning behind this catharsis. In recognizing our own destructiveness and narcissism—feeling the terror of not being as good as we imagined we were—we are released from constantly striving to get what we think we deserve, and instead begin to experience humility. And, through humility, we are able to make room for meaningful relationships.

The process can be seen in symbolic representations in many mythologies. Christ, for example, is tempted in the desert. He is offered both possessions and is challenged to take a leap off a cliff. Both of these temptations are designed to play on his fear and desire. The Buddha, similarly, is tempted by being faced with an Army and with the three beautiful daughters of Death. He also says no, and reaches illumination. Fear and desire represent the strivings of our ego—the basic biological drive to protect ourselves and our "tribe." The German philosopher Arthur Schoppenhauer (1958) called this process the *will to live*. He held that we must deny our own will to live in order to act with compassion toward others.

Carl Jung

Similar to Campbell's work, Carl Jung and his successors in Jungian thought and archetypal psychology have striven to assist client's with developing a personal mythology through the individuation process (in Campbell, 1971; Jung, 1953; 1959; 1963; 1967). Basically, Jung's theory of individuation is very similar to Campbell's catharsis. Campbell himself used Jung's theory as a process of exemplifying his ideas (Campbell, 1949).

The area of Jung's work that is most relevant to the Hercules story is that of his alchemical studies. He in fact uses this figure as an example in clarifying alchemical principles in several places (Jung, 1953).

On the surface, the alchemists were concerned with manipulating matter, particularly that of turning metal to gold. However, the process of trying to change metal to gold was recognized by Jung as being metaphorical of the process of perfecting oneself (Jung, 1953; 1959; 1963; 1967). Perfection doesn't mean a whittling away of all faults to then realize a flawless personality. Instead it means a turning of the particular vices that a person struggles with into virtues (Campbell, 1949). In archetypal or Jungian language this means integrating the characteristics of the shadow into one's everyday living. The shadow is a symbol for the repressed or denied opposites of one's being. A *very good* person—one who holds himself or herself as being of the highest moral caliber and so beyond reproach—would be said in Jungian thought to be out of touch with his or her shadow. It is when one is in such a state that the destructive potentialities of the shadow are most lethal (Jung, 1953; 1959; 1963; 1967).

In popular symbology the character of Aniken Skywalker adeptly exemplifies the situation. On a poster advertising the Star Wars Episode I film, we see young Aniken walking in the desert, the shadow reflected by the sun being the future Darth Vader. Indeed, it is gradually apparent through this character as he grows into adolescence and begins to more align himself with revenge and hate that we see the first traces of the demonic character of Vader. While the motives of the adolescent Aniken are on the surface virtuous—the serving of and love for the princess and the vengeance for his mother—it is the spirit with which he carries out these deeds that takes him to the *Dark Side*. He is operating from fear and desire.

The shadow on the poster is more than imaginative advertising. It is the blazing, creative power of the sun that exposes the shadow. In alchemical terms this is the purifying fire. It sheds light on one's impurities at the same time as it purifies by burning away the

maniacal clinging tentacles of the ego to itself. The cold, dull metal that will eventually rust away is transformed into a gold the color of the sun itself, radiating with the same golden light that is responsible for the sustenance of all life. This purification by fire may in psychological terms be considered the process of turning inward and opening oneself to the full picture of oneself, as is called for in the catharsis (Jung, 1953; 1959; 1963; 1967). There inside are the potentialities of both *good* and *evil,* and it is the task of the individual in individuation to integrate those powers into consciousness while at the same time taming them.

Vader's problem is that he gets stuck. We see him called and the beginning of his initiation in Episode One. The problem with Vader as he undergoes his initiation is that he becomes consumed with fear and desire—fear that he may one day again have to suffer another loss such as that when he lost his mother, and the desire for power and control to keep him in a position to prevent anything that might potentially bring this suffering. So he acts to protect himself. He chooses power and control over compassion and humility, and so is doomed to darkness—a darkness symbolic of one's own inner hell of going about everyday operating only from the position of protecting oneself from co-workers, the boss, familial relationships, etc. This then leads to perpetual suffering and despair. This all may, of course, be masked by a false sense of power and dominance, as is the case with Vader. What is very interesting about his case specifically is that he becomes half machine. We might see this symbolic of those in our own society who get caught up in the power and prestige of the machine of the corporate or other aspects of the secular world. We may be given power and prestige as a reward, but we lose our humanity.

Vader's liberation comes when he feels deep compassion, pity and love for his son. It is then, in Return of the Jedi, that he expels the same devil faced by both Christ and the Buddha, and regains his humanity. Even though he dies shortly after, we see that his soul lives on.

Otto Rank

Otto Rank (1936b) uses the term illusion to refer to those activities that lift the individual out of the purely biological sphere of survival: " We refer in general to religion, art, play, sport and certain professional ideologies, which not only lift man out of his everydayness, but out of himself, not because he needs recreation, diversion, distraction, something higher, but because he could not exist s all in the plane of his own primitive self" (p. 173). He doesn't mean here that the individual is to live by fantasy. Rather, one creates from experience a life defined by belief in one's own creative will. Essentially, one creates a myth.

In Rank's will therapy, a primary goal is for the patient to develop a balance between instincts, fear and will. We are born with certain instincts that may drive us toward certain behavior. To live from these instincts only is to live on the purely biological plane, disregarding the effects the behavior may have on others. Fear results from the polarity of life and death. We fear death, whether we are aware of it or not, and we fear life, paradoxically, because to acknowledge life means to acknowledge death. This state is at least somewhat transcendent of the instinct condition, as the latter condition involves no or little consciousness to life and death issues and so may also involve little fear. The neurotic who lives in either perpetual fear of life or death, then, is to some extent the polar opposite of the more pathological condition of the instinctive type who often becomes a criminal type. The solution to this pair of opposites is the unifying will. This involves a creative impulse of the individual, a deliberate act of unification and balancing of the instincts, the inherent fear of life and death that heightened consciousness (one above mere instinctive functioning) brings. This takes place through a process of differentiation, whereby the individual can allow feeling

states to arise in situations, but in a manner that neither allows acting out or repression:

> "This results chiefly through the development of the emotional life, through a differentiated feeling life as the analytic play level brings it out, and as so-called real life demands. This new phase of ego development in the patient may be characterized best by the two concepts, distribution and selection, both of which correspond to a partial living in terms of adaptation, that is, the individual no longer is forced to live in every moment either totally or not at all, but he now possesses the ability to distinguish important from unimportant situations, and to invest in both only a certain, or one might say, the correct amount from his own ego. On this basis the individual may endure every experience as such without tying it up causally, totally or finally with all the rest of his life, or with what goes on in the world at all. The person then lives more in the present, in the moment, without longing to make it eternal" (p. 127).

This is, of course, much the same definition of a living orientation as expressed by the above examples. However, Rank explicitly addresses existential experience. The point is the same—the individual needs a myth, essentially something to believe in, something that gives him hope, but that keeps the tension of anxiety inherent in a life that will one day mean death energizing him, fueling him to create out of his own experience. With Rank (1936a; 1936b), though, the essential element of focus in order to fully understand any behavior is the individual's will.

What makes Rank´s perspective important for the discussion here, is that he places the responsibility, and the ability, for change squarely on the individual. While his work did not deny the effect of developmental or constitutional factors on the behavioral patterns of individuals, he held them as secondary to the business of change (Rank, 1936a; 1936b).

This is vital as a therapeutic element with populations such as those under study here (Yochelson & Samenow, 1976; 1977). The therapist placing too much emphasis on the victim stance of the violent male, or alternatively, adhering to a stringent, judgmental

condemnation of current behavioral patterns without acknowledging the effects of developmental events are both potentially destructive elements in the therapeutic process (Yochelson & Samenow, 1976; 1977; Gabarino, 1999; Pollack, 1998). Essentially, Rank (1936a; 1936b) claims that we need a myth, something to believe in, something that gives us hope, but that keeps the tension of anxiety inherent in a life that will one day mean death energizing us, fueling us to create out of our own experiences. From what is apparent in the world-views of the individuals under study here, it is clear that this is a key element in any attempts to rehabilitate them.

It is Rank's (1936a; 1936b) work that Campbell's (1949) monomyth finds its full expression in the language of psychology. The reason for this is that the other major streams of psychology all emphasize an understanding of the individual and his or her struggles through primarily external factors. Freud (in Brill, 1938), for example, emphasized the biological and early pedagogical experiences of the individual in the process of human development. While psychoanalysis has matured to form many disparate streams, this emphasis on early experience and psychosexual impulses remains. Adler, who can be considered the earliest of system or social oriented psychologists, put focus on factors relating to the balance of power in social relationships and the effect this has on the individual. The relationships constituting the microsystem, mesosystem and macrosystem of the individual have the primary impact on the developing person. For Jung (1959), archetypes, the collective unconscious that holds them, and other factors that might be termed the spiritual and primordial elements acting upon an individual are ultimately the most import focus of psychological investigation in terms of understanding individual behavior (Rank, 1936a; 1936b).

While holding that all of these factors relating to the biological/psychosexual (Freud), sociological/systemic (Adler) and spiritual/archetypal (Jung) are vital in understanding people, Rank (1936a; 1936b) believed that they were all limited by one factor: determination.

Each of these paradigms is defined by the relationship between human development and elements acting on the individual to then cause or determine certain cognitive, affective and behavioral states. What this leaves out, according to Rank, is the element of choice. Does the individual during any of these processes of interaction-- between his or her biology/early experiences, environment, or unconscious archetypal strata—have a choice in how to use that material rather than simply being the passive reactor to these stimuli? The question is clearly parallel in psychological terms to the question of the call to adventure in mythological terms. The individual, for Rank, either chooses to become a creator from all phenomena acting upon him or her, just as the hero must choose to answer the call. The person who externally attributes all courses of action to biology/psychosexual experiences, environment, or spiritual potentiality is like the hero who simply remains in the status qou, in the given village or fate into which he or she was born. On the other hand, the one who does not deny outer influence, but who also does not accept total Pavlovian passivity to that experience, and then instead uses the material to create from his or her unique potentialities a life of such originality that it has never nor will ever again be lived—such a person is exactly like the individual who leaves the comforting bounds of the social order and sets out into the dark woods, not on a path prepared by psychological theory or pedagogical mandate, but instead one made new, his or her footsteps the first and the last, the path in fact non-existent up until the choice to create it (Rank, 1936a; 1936b).

It is clear, then, that the individual needs a viable and balanced cognitive-affective and behavioral schemata for living, in the particular situation in which he finds himself, as well as one that addresses those existential questions shared by all. The fact that angry/hostile adolescent males do not live by such a system is obvious through their difficulties. While there are a multitude of etiological factors to consider when working with an individual of this population, it will be demonstrated by what follows that a sub-group of this population—those suffering from attachment trauma—are living according to the personal myth that

closely parallels the myth of Hercules. It is believed, then, that these individuals will identify more with the Hercules character than will those from a normal population of adolescent males. This can then lead to future possibilities of using this character to work with them in rehabilitation. In order to demonstrate the parallels in the lives of violent adolescent males who have suffered attachment trauma and the character of Hercules, the following discussion explores both the historical background of the Hercules story, and the story itself as it exemplifies the above discussion on an existential approach to interpreting it, and how this then relates to the lives of those under study here.

Historical background of the Hercules myth

Prior to the arrival of the patriarchal Indo-Europeans, those Grecian societies in Minoan Crete and Mycenea appear to have been predominately peaceful people (Gimbutas, 1989; Greenstadt, 1982). They were agricultural communities that emphasized communal values and egalitarian power structures. Because the primary form of sustenance was agricultural, the mythological system was predominated by Goddess worship. As it was observed that the Earth gave birth to food just as the mother gave birth to the child, the symbol of the feminine became associated with life-giving powers. Additionally, because the role of feminine energy was paramount in life itself, the role of women, and the value system they embodied–nurturing, caring, and cooperation—was a central part of the societal structure (Gimbutas, 1989; Greenstadt, 1982).

In contrast, the Indo-European peoples worshipped a male god-head and valued warrior-like, male energies—strength, courage, valor, and honor (Gimbutas, 1989; Campbell, 1990). Because these people were primarily nomadic, the only constant in their lives was the sky—specifically, the sun and possibly the energies of thunder and lightening. Further, their sustenance was primarily organized around male-dominated activities such as hunting, herding, and fighting. These energies coalesced with the symbology of the sun and sky, and the primary deities became male thunder-hurlers (Zeus) and sun-gods (Apollo).

When the Indo-Europeans entered Mycenae and Minoan Crete, their strength assured their domination of the earlier inhabitants (Gimbutas, 1989; Campbell, 1990). Over time, all facets of society were infused with this male-dominated power structure and mythological system. Even the earlier goddess symbols became to be associated with male characteristics (Greenstadt, 1982). For example, Athena in the Greek pantheon as we now know it is a goddess of war. Likewise, Artemis is a Huntress. Hera, the queen of the gods, took on an adversarial character, habitually exhibiting jealousy, and a generally hostile personality. We can only speculate that this latter example may have been a projection of the newly male-dominated society in terms of its perception of the dissatisfaction of the women within this community.

The goddess energies, then, were repressed and devalued in these societies. Over time, the loss of this important precursor to the now patriarchal Greeks began to have an effect on the mythological system. According to Jones (1922), whenever a society denies the goddess, the energies associated with this symbology will manifest somewhere. The need for a communion with the energies of this ancient symbol is, according to him, too strong to simply push away. Where the goddess energy has been repressed, a reconciliation needs to take place in order to reintegrate the essential characteristics of nurturing, warmth, cooperation and caring.

For the Greeks, this reconciliation took place primarily in the Hero myths, particularly in that of Hercules (Greenstadt, 1982). As will be seen in what follows, Hercules struggles his entire life against the forces of the distorted image of the patriarchal vision of Hera, until finally reconciling himself to her in the end. The male-dominated value system of courage, strength, valor and honor are embodied to a greater degree in Hercules than any other heroic figure (Hamilton, 1969). And, the tragic side of this value system is likewise poignantly and tragically demonstrated in this character.

In terms of application to this study, the similarities in the repression of the goddess value system in Greek society can be seen in the dictates of the boy code. The behavioral mandates of the *big wheel, no sissy stuff, the sturdy o*ak and *give 'em hell* (Pollack, 1998; Levant, 1996) are synonymous with the emphasis on strength, courage, valor and honor of the early Greeks. Further, the absence of nurturing values in the same society are mirrored in the lives of the lost boys and their suffering from a lack of nurturing and attachment trauma. In the following section, I intend to compare these struggles of both Hercules and aggressive boys.

The Hercules myth:

The story, an existential interpretation, and

the relevance to the subjects under study here

Hercules was the greatest and strongest hero in Greek mythology. He considered himself to be an equal of the gods and, indeed, the gods called upon his help to defeat the Giants. His father was Zeus, the king of the gods, and his mother was Alcmena, the mortal wife of general Amphitryon. Zeus had visited Alcmena one night in the shape of her husband while the general was away at war. This affair which brought the mighty Hercules into being would also be the seed of much of his struggles in life. Hera, Zeus' wife and queen of the gods, was so jealous of the exploit that she vowed to kill Hercules and much of his life was spent under that curse (Hamilton, 1969).

Interrupting the story for a moment, we can see a similarity in the metaphorical message here and the struggle of those suffering from attachment trauma. Hera, who epitomizes the goddess energy, rejects Hercules. Though not his natural mother, she represents the sacred position of the married woman and mother, and is the goddess turned to by Greek wives and mothers for help (Hamilton, 1969; Slater, 1968). Further, her daughter Ilithyia was the goddess who was called upon for assistance in childbirth. Hercules suffers, we might say, because he has been rejected by the mother of mothers. Similarly, lost males

suffer because they have been rejected by those who are for them the image of the *life bringing* or *mother force* itself: namely, their own early caregivers (Hamiliton, 1969). As James (1994) holds, to young children this rejection is not simply the rejection of the individuals literally involved, but the rejection of life itself. When rejected by the very people responsible for bringing them into life, these males develop a sense of shame that they are not worthy to be living at all. We might call their condition the *Herculean void*, as their behavior in many ways parallels that of this hero who struggles to find a place in a world in which the goddess energy itself has rejected him.

Hercules´ suffering in the beginning can also be interpreted as those inherent in life itself. As the Queen of the Gods, Hera represents, in part, nature itself—the functioning of the universe as it is, both with all of its beauty *and* horror. She is the counterpart here to those goddess figures such as Kali in Hindu mythology. She takes life just as she gives it. In this regard, then, the myth is communicating from the beginning the inherent suffering in life that all must undergo. Death, of course, is the cornerstone of this given—all will die, and so we must simply accept suffering as a part of life.

In terms of further relevancy to this population, then, the fact that suffering is shared by all humankind can work to facilitate their putting their losses—even abuse and neglect resulting in attachment trauma—into a wider perspective. Hercules seems to struggle unfairly, and this can be useful in forming a connection with these individuals. Specifically, the seemingly unwarranted punishment that Hercules endures from the beginning correlates to the perceived unwarranted trauma that these individuals have suffered. The greatest or most popular hero in Greek mythology—perhaps even of the entire Western world—had to suffer unfair torments just like them, and then went on anyway to become a servant of humankind. If this connection can be made, the individual can develop a sense of hope from even the beginning stages of therapy—hope that despite his losses, even those he has brought on himself, that he can still create a meaningful, heroic life.

Hercules was known for his extreme temper, and as a youth he killed his music teacher in a fit of rage. He spent much of his life like this, largely ruled by fits of uncontrollable anger. At one point, Hera cast a spell of madness over him that caused him to kill his own wife and children. The scene is detailed and gruesome, perhaps best told here by Euripides: Hercules "handled his bow and quiver, ready to shoot his own sons, thinking they were children of Eurystheus [Heracles' enemy]. Terrified, they rushed this way and that; one hid behind his mother's dress, one in the shadow of a pillar, one behind the altar cowered like a bird. Megara [Heracles' wife] shrieked, 'What are you doing? They're your children!' Amphitryon [Heracles' father] and all the servants shrieked. Nimbly and swiftly he spun round the pillar, faced the child, and shot him dead. He fell back gasping, spattering the stone with blood. Heracles yelled in triumph; 'There lies one,' he cried, 'One of Eurystheus' cubs has paid his father's debt.' Down by the altar steps, hoping he was unseen, another boy was crouching. Heracles aimed at him; the child was quicker—he darted to his father's knees, reached for his beard and neck, and cried, 'I am your son—yours, not Eurytheus'. Father dear, don't kill your son!' His father's eyes were like a Gorgon's—twisted, cruel. He could not use his arrows—the boy stood too close; so, like a blacksmith forging iron, he raised his club high, and upon his son's fair head he crashed it down, shattering the skull. His second victim dead, he now made for the third; but Megara swiftly snatched the child away, and rushed with him into an inner room and locked the doors. He, just as if this were in truth Mycenae and the Cyclopian walls, with pick and bar heaved, hammered, burst the door-posts, and with a single shot dispatched both wife and child" (183 lines 967-1001) (Vellacott, 1963).

The call to adventure

When the newborn child comes to the world, we don't know precisely what its subjective experience is. However, from the universal expressions of helplessness and what might be termed longing that seem to manifest in newborns, we can extrapolate that the experience has something to do with anxiety and the tone of feelings normally associated with

crisis. This is, according to Campbell, the emotional quality of the *call to adventure*. All that one has known as caressing, care-taking, feeding, folding over and warm, secure, life-sustaining and assuring—all of this is gone: "all moments of separation and new birth produce anxiety. Whether it be the king's child about to be taken from the felicity of her established dual-unity with King Daddy, or God's daughter Eve, now ripe to depart from the idyl of the Garden, or again, the supremely concentrated Future Buddha breaking past the last horizons of the created world, the same archetypal images are activated, symbolizing danger, reassurance, trial, passage, and the strange holiness of the mysteries of birth" (Campbell, 1949, p. 52).

Up until the paradoxically releasing event of Hercules' murder of his own family, he is the hero of his warrior people. He embodies more than any other Greek heroic figure the value system necessary for survival in a turbulent and brutal semi-society. Had he gone on as he was without this terrible blunder, his periodic slips of rage would certainly have been forgiven up against the many warrior deeds performed on behalf of his birth-world. Interesting, then, that the poets spring on him this tragedy, one enough to bring condemnation on even so great a hero. He knows this, and sees no alternative but suicide: "'What can I do but die?' Hercules cried. 'Live? A branded man, for all to say, 'Look. There is he who killed his wife and sons!' Everywhere my jailers, the sharp scorpions of the tongue!'" (Hamilton, 1969, p. 230). Here are the words of one fully steeped in the male code of his time. Ones worth is measured completely by external perception, that reputation defined specifically against an ability for verocity, valor, honor, prowess in war, etc. The point here is not to look upon these attributes as negative; clearly, they are largely what define him as a heroic character, and are of course qualities necessary to the thriving of any civilization. What this ethical system symbolizes as a whole is the *given*: that which one inherits at birth—whether that be the Freudian biological/psychosexual developmental experience; the Adlerian sociological web of influence; or the Jungian biospiritual unconscious, patterned by a system

of instincts and archetypes. It is out of this *given* that Hercules is pulled when he is confronted with the final result of his operating crudely—an impulsive, programmed brute of his time. This is in direct contrast to the *call*, which is instead to begin the journey of acting creatively, in Otto Rank's terms, neither passively accepting nor naively rejecting the stuff of his being.

In the Hercules myth, as in many others, the initiate is met in his confrontation with the anxiety of new experience by a character that represents all that he is not—essentially, the unexpressed parts of himself. Here it is Theseus. Following Hercules' awakening from his murderous fury, he is overcome by grief and guilt and vows to commit suicide. It is Theseus who convinces him not to. This is vitally significant in understanding the myth. According to Hamilton (1969), while Hercules was the most celebrated hero throughout the majority of Greece, Theseus was so in Athens. He represents the unfolding there of the emphasis on art, debate, participation through a budding democracy, curiosity through scholarship—all essentially activities of discovery, of creativity, of exploration and journey. It is appropriate, then, that it is Theseus who calls Hercules. To the latter's previous cry of pride and resignation, the one schooled in the matters of the Labyrinth and its demon responds, "'Even so, suffer and be strong…You shall come to Athens with me, share my home and all things with me. And you will give to me and to the city a great return, the glory of having helped you'" (Hamilton, 1969, p. 230).

The key to understanding this exchange lies in not getting caught up in the literalism of the figures. While Theseus is a separate entity in the myth, he more appropriately represents the diametrical opposite of Hercules. This is not to say that he was overly vulnerable or passive. Ending the terror of the minotaur took every bit as much of the warrior qualities that drove Hercules. But Theseus' major feat was one of going inward, of getting lost, of entering the layer of the dragon with only oneself to rely on. Hercules´ adventures up until this point always have a flavor of going outward, of explosive and forced

overwhelmingly smashing-power. We always get the sense of a conquering hero whose fate is never in question. Like a lone superpower, his victory is assured from the outset. One might say that this is this Hercules whom Seneca emphasized in his Hercules Furens—the cultural ideal both in Greek and later in Roman society, who for the sake of valor eclipses the more human qualities of compassion and humility: "Hercules significance goes beyond personal psychology. The play [Hercules Furens] is also a study of a mythical hero and a culture-hero. Hercules is the paradigm of an influential cultural ideal: that of the exceptional man, the beneficient conquering hero and peace-bringer…Seneca explores this ideal from a tragic viewpoint; he draws on the ambivalence about Hercules' character evident in the myth itself, and on the dangers of such a cult of personality as evidenced by historical examples such as Alexander and Julius Casear" (Fitch, 1987, p. 39).

Although in the Greek versions of the story the moralistic concerns of Seneca are less emphasized, one still senses the brutal force with which Hercules confronts the obstacles put in front of him. It is, indeed, only at this point of tragedy where this brutality reaches its full fruition in the destruction of everything that he was fighting for that he hits, in popular psychological language, rock bottom, and must from there either take the next step of resignation through suicide, or begin anew, from the ashes like the Phoenix, from the pit of loss, from the anxiety and despair of a new birth, by answering the call of moving toward all that he had not been, symbolized here by Theseus.

The message for the population under study here is clear. This act on the part of Theseus which serves to initiate the reconstruction of Hercules is one of compassion and understanding. If we see the two figures as representing the qualities that exist in all people, then we can see that what these males need is both a modeling of, and an attunement to, these qualities of compassion and rational thought. Already living the adrift, labile and rejected life of Hercules, they need to be introduced to and nurtured into the other sides of human potentiality.

The swinging from one extreme of violence to warmth is characteristic of the Hercules myth, and is such because as an enduring myth, he symbolizes the potential for male energy completely (Fitch, 1987; Henderson, 2003; Vellacott, 1963). In fact, the story follows very closely the archetype of the redeeming hero as defined by Joseph Campbell (1949). What makes Hercules unique—say in comparison to other archetypal figures such as the Buddha or Christ—is that the anger and violent sides of his character are just as emphasized as is his compassionate/caring side. Even in more warrior-oriented heroes of say the Arthurian legends, rarely do we see the hero acting in senseless acts of violence such as with Hercules. And this is perhaps what makes this myth more significantly relevant to this population, perhaps more so than others that emphasize from the beginning the more peaceful aspects of human character. Because the Hercules myth exposes male energy in its extreme forms in both directions of rage and compassion, it is to some extent more real to this population. The fact that he is such a popular heroic figure even today after perhaps more than 3,000 years is evidence for this acute accuracy and honesty in terms of representing this male energy.

Seeing Hercules as an honest portrayal of male potentialities, angry males who suffer from attachment trauma can see the fact that anger and hostility are natural emotions, but that acting out on these feelings is a choice. Further, Hercules character demonstrates that each male is solely responsible for his acts of violence. While the Hercules narrative may provide a sense of readiness to accept otherwise unsightly aspects of themselves, it also can model for these males that this problem of violence is a product of their own wills, working, it is true, in the field of suffering both placed on them from perhaps biological, psychological, developmental and other social factors, but nonetheless a will that they have used to create the particular life they are now living. In the symbology of the poets rendering this myth, the gods represent these different factors inherent in life and in each individual, and the Greeks perhaps more than any other civilization emphasized the will of the individual in choosing his or her fate (Rank, 1936a; 1936b).

Hercules' story does not end with his being accepted by Theseus. Although welcomed by Theseus and all Athenians, he feels in himself a need for penance. He consults the oracle at Delphi who instructs him to go to the King of Mycenae to undergo whatever tribulations he demands. He undergoes a series of twelve labors which are renowned for their difficulty, the more popularly known among them being the slaying of the Hydra, and freeing his savior Theseus from the chair of forgetfulness in Hades. As part of the latter quest he had to bring Cerberus, the three-headed dog, out of Hades and back to the King of Mycenae (Hamilton, 1969).

If violent males are to rebuild their lives, they must at once be *accepted* and be *expected* to take responsibility for their own existence (Gabarino, 1999). This includes whatever tragedies they have caused. They must "suffer and be strong," as Theseus advises. They must face their own demons residing in that Hades which resides in all of us. They must conduct a moral inventory. This is no easy task: looking oneself in the mirror, listing all of the wrongs one has done, grieving each, making reparations where possible, and making commitments to live a different life. These tasks are no less heroic and difficult than those faced by Hercules. Through identifying with the Hercules figure, violent males may find courage in undergoing the difficult process of confronting their inadequacies, past trauma, the grieving of losses, etc.

Through recognizing in the symbology of Hercules the sufferings of themselves, of their own victims, and of perhaps even those responsible for their suffering, they can begin to develop a sense of connection and compassion for others and an authentic caring for themselves. Further, through conducting a moral inventory and facing the terror of their own destructiveness, they can begin to develop humility. This is a very daunting task, and violent males may be more likely to undergo it through likening the work to the 12 labors of Hercules—as extremely difficult but necessary; and, above all, heroic.

The task does not stop here, as Hercules' fate shows. Rather than being free to live a new life after paying the price of penance, we find Hercules continues to struggle with the same issues of fits of rage (Hamilton, 1969). The message here for violent males is clear: regardless of the effects of possible rehabilitation, those demons they have struggled with will be with them forever. This is a very important message. Though there is, in my opinion, a right and an ability to a new life for every violent male who authentically wants to take responsibility, they must understand that they will never be completely free of those aspects of themselves which contribute to rage and violence. Rather, the task is to come to terms with these demons, to face them, tame them, and use the energy for positive efforts oriented toward compassion and humility. Rollo May (1969) called these darker aspects of ourselves the daimonic, and held getting in touch with this energy to be absolutely essential to effective loving. The same energy that enabled Hercules to slay whoever came into his path of rage, was also the same energy used to free his savior Theseus from Hades. The crucial question is how the energy is directed.

In identifying themselves with the Hercules character, violent males can come to understand that they must exert great effort for the rest of their lives to stay on the path of growth and change. Though they may make great strides in any potential rehabilitation, they must understand that they have the potential to return to violence again. Hercules' struggling with this same issue can be used to help these males to accept this challenge with hope and dignity. This aspect of themselves is both a blessing and a curse. The modeling of Hercules can engender in these males a respect for this daimonic both in terms of its permanence and its potentiality for harm or good.

The final fate of Hercules, on Earth, is interesting. In one version, we are told that because he cannot be defeated and because he is tired of suffering, he gives up his own life. In another, he is overcome by the pain of having driven his current wife to suicide, after she mistakenly gave him a robe soaked in a poison that is causing him agonizing pain. Again

acting on his rage, he admonishes her, not knowing that she actually had thought it to be a love potion. Once finding out, he also commits to taking his own life. It is important, however, not to consider this literal suicide. Rather, this is, like other symbolic departures from temporal life—the crucifixion, the Buddha´s leaving his princely duties—a surrendering to being reborn. Hercules is dying to his old life—the one keeping him on this track of tragedy—into a new life among the gods. Hercules orders his assistants to place him upon a pyre on Mount Oeta, where he lays down upon it and states "This is rest" (Hamilton, 1969, p. 171). As he is released into the land of the gods, we learn that he is reconciled to Hera and even marries her daughter Hebe, at last enjoying happiness and love after being willing to die to his personality of fear and desire.

Again, through identifying with Hercules, violent males can gain a sense of hope that they too can through great struggle and give themselves a re-birth. By seeing Hercules' rebirth in the story, these males can also come to understand that they too can be heroes if they work repeatedly, daily, hourly, arduously and tenaciously toward a life committed to compassion and humility.

The Personal Construct Theory of George Kelley

The Kelly Repertory Grid is based on the personality theory of George Kelly (1991a; 1991b). It has been used in a wide range of psychological research and in varying formats (Neimeyer & Neimeyer, 2002). It has been demonstrated to be effective in such fields as substance abuse (Burrell, 2002), Attention Deficit Hyperactivity Disorder (Mancuso, Yelich & Sarbin, 2002), psychodynamic group work with adolescent offenders and nonoffenders (Viney & Henry, 2002), personality research (Hermans, 2002), teaching, construing of professionals, learning disabilities, family work and other social relationships, forensic work, politics, career counseling, organizational and business systems, and several other fields (Fransella, Bell & Bannister, 2004). The form of the test used in this study is the Role Construct Repertory Grid, which focuses on interpersonal perceptions, communication and

role relationships. The basis of Kelly's theory and this instrument is that personality develops out of one's construing of one's relationships with significant individuals, such as mother, father, other authority figures, etc. The individual builds a system of constructs out of the construing process, which then govern behavior and structure personality (Kelly, 1991a; Kelly, 1991b).

The specific form of the repertory grid used here is the group administration format that was recommended by Kelly (1991a). Each individual in the group is given a copy of the grid and then asked to fill it out according to specific instructions. The grid contains a list of 15 role titles determined by Kelly to represent a large range of important relationships within a person's life. The subjects are then asked to identify individuals from their own lives to go with each role title. They are then asked to consider three predetermined people in the list and to describe how two are alike in some important way. This is then recorded on the grid. They also provide a check mark for the two considered similar, leaving the dissimilar one blank. The subjects are then asked to consider a term that describes the third person in the group, then recording it on the grid as well. They are then asked to look at the rest of the figures in the list and to rate the others on a scale of 1-7. A score of 1 is given to those sharing the construct, and 7 is given to those sharing the other characteristic. A score of 2-3 and 5-6 represent lessening degrees of association with the construct and the other characteristic respectively. A score of 4 indicates that the subject does not feel that the element shares either of the characteristics. After the process is completed, each subject has before him a 16 x 16 correlational matrix. The matrix consists of fifteen significant people in the subject's life plus the Hercules figure, by sixteen bipolar constructs. The grid has checks and ratings which represent the intersections of various constructs and figures (Kelly, 1991a).

The specific measures being taken for this study are degree of constriction of the construct system, psychological isolation, and the degree to which the actual self is clustered with the Hercules figure. Kelly claimed that the degree of constriction of one's construct

system is correlative to hostility because it creates threat. Simply speaking, the more constricted a degree to which one organizes one's constructs, the less freedom there exists for one to be flexible in dealing with various situations. This then creates threat when the individual is presented with a situation that doesn't fit within his or her construct system. This can then lead to hostility (Kelly, 1991a; Kelly, 1991b). It is therefore expected that the experimental group will demonstrate a greater degree of constriction than the control group, given the fact that the experimental group members display a higher degree of anger and hostility than those in the control group.

Psychological isolation relates to Kelly's concept of guilt. He believed that individuals experience guilt with the loss of their core role. The core role is the basic, fundamental role with which one identifies one's existence: "One's deepest understanding of being maintained as a social being is one's concept of one's core role. Perceptions of one's apparent dislodgement from one's core role structure constitutes the experience of guilt" (Kelly, 1991a, p. 370). Basically, guilt then leads to self-isolation due to one's not having a basic sense of how to organize oneself in a social relationship: "Guilt is a psychological exile from one's core role, regardless of where when, with who, or in what scenes the part has been played" (Kelly, 1991a, p. 372). In the case of the subjects of this study, attachment trauma creates in the individual a desire to get back to the original relationship—the original core role structure—that was there before the loss of attachment. The desire is driven by guilt. The problem is that the individual tries at the same time to keep up the position of being the juvenile delinquent, the rebel, the troublemaker, etc., because that is the pseudo-identity, or new core role structure, that has replaced the healthy attachment bond. By continuing to act out, the person at least has some identity and therefore avoids the greater guilt that would result if he or she were also to lose this core role. While maintaining this role, they secretly, unconsciously long for the earlier attachment core role of the cared-for/loved child. They strive to get what they feel they didn't get as a child, or what they once had but lost. This

situation is a paradox. The individual is in a double-bind (Kelly, 1991a; 1991b). It is expected that those in the experimental group will demonstrate a greater degree of psychological isolation than those in the control group because they have suffered attachment trauma and so are caught in this circle of guilt and isolation.

The self-identification with the Hercules figure on the repertory grid will be measured by the degree of correlation between the self title and the Hercules figure. It is expected that those in the experimental group will identify themselves with the Hercules figure more than those in the control group, because the story of Hercules closely parallels 1) the process of increased hostility due to the elevated experience of threat due to constriction; and 2) the struggle of guilt and loss of core role structure that is consistent with those who suffer attachment trauma. As was demonstrated in the discussion of the story above, Hercules also was known to act in fits of anger and hostility out of proportion to the stimuli responsible for the acting out, and he struggled continually with having a sense of a core role structure as he was rejected by Hera and particularly after killing his own wife and children. In fact, his twelve labors can be seen as both an exercise in increasing his ability to deal with threatening situations without acting in fits of anger and as his establishing an identity for himself as a servant to others.

Hypotheses

H1: The experimental group will demonstrate a greater degree of constriction of the construct system than the control group

This is a one-sided hypothesis.

Let $con_{i.j}$ denote the numerical representation of the amount of constriction of person i of group j ($i = 1 .. n_j$, $j = 1$ to 2). n_j is the number of participants in group j. Group 1 consists of non-angry, non-hostile adolescent males who have not suffered attachment trauma. Group 2 consists of angry and hostile adolescent males who have suffered attachment trauma. If the

values of constriction are normally distributed within both groups, the amount of constriction in group j is given by the arithmetic mean value: $\text{mean}(\text{con}_{.j}) = (\Sigma_{i=1..n_j} (\text{con}_{i.j})) / n_j$.

Thus hypothesis 1 states that $\text{mean}(\text{con}_{.2}) > \text{mean}(\text{con}_{.1})$ or $\text{mean}(\text{con}_{.2}) - \text{mean}(\text{con}_{.1}) > 0$.

The corresponding null hypothesis of H1 would be true if $\text{mean}(\text{con}_{.2}) \leq \text{mean}(\text{con}_{.1})$ or $\text{mean}(\text{con}_{.2}) - \text{mean}(\text{con}_{.1}) \leq 0$.

If the values of constriction are not normally distributed then the arithmetic mean would not be a valid characteristic for these values. In that case the *median* would be a more suitable measure of the central tendency.

Effect size

Stated in the above form, H1 postulates the existence of a positive difference between the group-means of constriction – however small that difference might be. No smallest relevant effect-size is given thus far.

To assure that the difference betweens the group-means is not irrelevantly small, we demand the effect-size to be at least of "medium" size. According to Cohen (1977) this implies that the means of the standardized values of constriction differ by at least d = 0,50.

Let $\text{sdev}(\text{con}_{.j})$ denote the standard deviation of the constriction-values within group j.

Thus $\text{sdev}(\text{con}_{.j}) = \text{sqrt}\ (\ (\Sigma_{i=1..n_j} (\text{con}_{i.j} - \text{mean}(\text{con}_{.j}))^2) / (n_j - 1)\ )$. The standardized values $z(\text{con}_{i.j})$ ($i = 1 .. n_j$, $j = 1$ to 2) are then given by $z(\text{con}_{i.j}) = (\text{con}_{i.j} - \text{mean}(\text{con}_{.j})) / \text{sdev}(\text{con}_{.j})$.

The exact definition of hypothesis H1 thus is: $\text{mean}(z(\text{con}_{.2})) - \text{mean}(z(\text{con}_{.1})) > 0{,}5$.

Possible practical benefit: Lower the level of constriction to make the individual less violent.

H2: The experimental group will demonstrate a greater degree of psychological isolation than the control group

This is a one-sided hypothesis.

Let $\text{iso}_{i.j}$ denote the numerical representation of the amount of psychological isolation of person i of group j ($i = 1 .. n_j$, $j = 1$ to 2).

With the same argumentation as for hypothesis H1, the exact definition of hypothesis H2 is: $mean(z(iso_{.2})) - mean(z(iso_{.1})) > 0{,}5$.

Possible practical benefit: Lower the level of psychological isolation to make the individual less violent.

H3: The experimental group will demonstrate a higher degree of identification with the Hercules figure than the control group

This is a one-sided hypothesis.

Let $ident_{i.j}$ denote the numerical representation of the amount of identification with the mythological character of Hercules of person i of group j ($i = 1 .. n_j$, $j = 1$ to 2).

With the same argumentation as for hypothesis H1 the exact definition of hypothesis H3 is: $mean(z(ident_{.2})) - mean(z(ident_{.1})) > 0{,}5$.

Possible practical benefit: If angry or violent males identify with the Hercules figure, then this figure can possibly be used to build rapport with them in counseling.

H4: There is a correlation between CONSTRICTION and ISOLATION within the target population

This is a two-sided hypothesis (because we make no assumption on the sign of the correlation coefficient).

Possible practical benefit: Answers for the following questions:

(1) Are CONSTRICTION and ISOLATION to be considered as independent factors? (In case of no correlation)

(2) Would it be sufficient to measure just one of these? Or could they be assumed as being caused by the same source? (In case of strong correlation)

H5: IDENTIFICATION with the Hercules figure is dependent (i.e. caused by) CONSTRICTION and ISOLATION within the target population

Possible practical benefit: If H5 would hold, then it would suffice to measure CONSTRICTION and ISOLATION to forecast IDENTIFICATION. In addition it could be estimated how strong the individual and combined effects of CONSTRICTION and ISOLATION are.

CHAPTER TWO: METHODS OF DATA COLLECTION

Subjects

The subjects for both the experimental and control groups were selected from a pool of American male soldiers at a community counseling center on the American military kaserne in Bamberg, Germany. The soldiers are those attending a two day educational class on psychological/self-help issues, to include stress management, drug and alcohol abuse, financial management skills, etc. Each class contains approximately twenty soldiers. The soldiers range in age from 18-45. All of the soldiers attending were referred to the counseling center due to having been involved in some activity that involved either drugs or alcohol. This includes being involved in a verbal or physical altercation, coming into work with alcohol on their breath, testing positive for drugs, or driving while intoxicated. All of them undergo an initial screening, and those being diagnosed with alcohol or drug problems are enrolled in counseling based on the severity of the problem. All referred, whether it is determined they have an alcohol or drug problem or not, must attend the above-mentioned two-day class. This includes many who are determined not to have an alcohol or drug problem, but who instead happened to be involved in a situation wherein alcohol or drugs were involved.

For the purposes of this study, there were a total of 220 possible subjects assessed for the study. All of those subjects who were identified as being diagnosed with either alcohol or drug dependency were excluded from the study. Because the study focused on the age group of adolescence, any subject over the age of 25 was also be excluded from the study. Further, because of the limited number of individuals available, no attempt to randomly sample subjects was made. In the end, a sample size of 40 subjects in each of the groups was available.

Apparatus

The Symptom Assessment-45 Questionnaire

The Symptom Assessment-45 Questionnaire (SA-45) is a self-report instrument of 45 questions designed to assess levels of pathology on a range of symptoms. The nine symptom domain scales include Anxiety, Depression, Hostility, Interpersonal Sensitivity, Obsessive-Compulsive, Paranoid Ideation, Phobic Anxiety, Psychoticism and Somatization. The various scales are measured based on T-scores and percentiles. The scale used for this study was that of Hostility. The symptoms found on this scale include, "having uncontrollable temper outbursts, getting into frequent arguments, shouting, and feeling urges to harm others or to break things" (Strategic Advantage, 2000, p. 1).

The SA-45 can be used as "a tool to assess treatment-related changes in psychological distress or symptom severity in psychiatric inpatients," "as a means of screening for the presence and/or level of psychological distress or disturbance that may require intervention," "as a screener in psychiatric and nonpsychiatric settings, including inpatient and outpatient psychiatric facilities, primary medical care offices, certain employment settings, college counseling centers," and "as a research instrument for investigations requiring some measure of overall level of psychological disturbance or the severity level of one or more specific symptom domains" (Strategic Advantage, 2000, p. 4-5).

reliability

The reliability of the SA-45 is well-established. The internal consistency of each of its scales has been demonstrated through Cronbach´s alpha coefficients of 0.71 or greater for both adult and adolescent inpatient and nonpatient samples. The internal consistency of the 11 scales has been demonstrated through Item-scale correlations across large validation and

cross-validation samples of adult and adolescent inpatients, and one-to-two-week test-retest reliabilities based on a nonpatient adult sample are generally in the.80s. Nonpatient adolescent reliabilities range from 0.58 to 8.85 (Strategic Advantage, 2000).

validity

The validity of the SA-45 has been firmly established. Construct validity have been demonstrated through comparisons of adult and adolescent inpatient, follow-up, and nonpatient groups. Criterion validity has been supported through correlations between its 11 scales and indices and their counterparts from other instruments on large adult and adolescent inpatient samples. Content validity has been demonstrated through the item-scale correlations and symptomatology covered by each of the nine symptom domain scales and their correlations to their SCL-90 (the earlier version of the SA-45) counterparts (Strategic Advantage, 2000).

State-Trait Anger Inventory-2

The Stage-Trait Anger Inventory-2 (STAXI-2) is a self-report instrument that measures two major components of Anger—state and trait. It is designed to provide "objectively scored measures of the experience, expression, and control of anger for adolescents and adults" (Spielberger, 1999, p.3). State anger is a "psychological emotional state or condition marked by subjective feelings that vary in intensity from mild irritation to annoyance to intense fury and rage" (Spielberger, 1999, p. 1). Trait anger, on the other hand, is a measure of the tendency to perceive a range of situations as "annoying and frustrating and by the tendency to respond to such situations with elevations in state anger" (p. 1). The report generated by the STAXI-2 includes six scales, five subscales and an Anger Expression Index. Anger Expression itself is further separated into three subscales: Anger Expression-In, examining the tendency to suppress anger, Anger Expression-Out, assessing the negative outward expression of anger, and Anger Control, measuring the ability to express anger in more constructive and controlled ways. The scale used for this study was that of trait anger.

As will be discussed in more detail below, it has been shown to correlate significantly with well-established hostility measures, and so is a reliable predictor of potential hostile behavior (Spielberger, 1999).

reliability

The STAXI-2 has demonstrated itself to be a psychometrically sound instrument. Internal consistency for the Trait Anger Scale and alpha reliability coefficients for the Anger Expression Scale are both high (Spielberger, 1999).

validity

Construct, criterion and content validity for the STAXI-2 have been firmly established. Of particular importance in terms of this study is the fact that the Trait Anger scale (the one used here), has been demonstrated to correlate with Hostility measures on the Buss-Durkee Hostility Inventory and the Hostility and Overt Hostility Scales of the Minnesota Multiphasic Personality Inventory (Spielberger, 1999).

Individual Psychological Interview

In terms of the measurement of attachment trauma, an individual psychological interview was conducted with each subject, and diagnostic criteria that are accepted in the field in terms of attachment trauma (Bowlby 1951; 1958; 1969; James, 1994) were used to make the decision as to whether or not a subject had suffered attachment trauma. Specifically, any subject who met the criteria of the DSM-IV-TR (American Psychiatric Association, 2000) diagnosis for Reactive Attachment Disorder were included. All potential subjects for the study were assessed for the diagnosis, and those not meeting the criteria were not included.

The Repertory Grid of George Kelly´s Personal Construct Theory

The Kelley Repertory Grid is based on the personality theory of George Kelly. It has been used in a wide range of psychological research and in varying formats (Burrel, 2002; Fransella, Bell & Bannister, 2004; Hermans, 2002; Kelly, 1991a; 1991b; Mancuso, Zelich & Sarbin, 2002; Neimeyer & Neimeyer, 2002; Viney & Henry, 2002). The form of the test used

in this study was the Role Construct Repertory Grid, which focuses on interpersonal perceptions, communication and role relationships. The basis of Kelly's theory and this instrument is that personality develops out of one's construing of one's relationships with significant individuals, such as mother, father, other authority figures, etc. The individual builds a system of constructs out of the construing process, which then govern behavior and structure personality. The specific form of the repertory grid used here was the group administration format that was recommended by Kelly (1991a; 1991b).

reliability

Because the repertory grid is more of a questionnaire than a standardized test, determining reliability is complicated. Reliability studies have, however, been approximated. Reliability coefficients have been reported as .76 with schizophrenic thought disorders (Bannister, 1962), and between .60 to .80 when evaluating patters of construct relationships among children aged nine to eleven (Landsdown, 1975). Slater´s (1970) retest reliability with thirty-two prisoners averaged .74 and ranged from .30 to 1.00. Smith (2000) also reported test-retest reliabilities of a number of measures, to include Bannister´s consistency and intensity scores and the percentage of variance accounted for in a principal-components analysis. She reported intensity test-retest reliabilities of .85 at 6 months, .87 at 12 months, and .81 at 12 months with new constructs; percentage of variance accounted for scores of .82 at 6 months, .73 at 12 months, and .70 at 12 months with new constructs; and consistency means of .84 at 6 months with a standard deviation of .12 and a mean of .77 at 12 months, with a standard deviation of .14. Fjeld and Landfield (1961) demonstrated that when given the same elements over a 2-week interval, a correlation of .80 was found between the first and second sets of elicited constructs. In terms of stability of elements, Pedersen (1958) found that there was a 77% reproduction of the same elements for a grid when subjects were asked to supply role titles again after a one week interval. Fjeld and Landfield (1961) did the same and found a 72% agreement.

In reviewing the literature on reliability scores, Fransella, Bell and Bannister (2004) acknowledged a range from .30 to .98. This variation is due to differences found in populations studied (i.e. age, sex, education, life style, etc.); types of grids used; approaches for eliciting constructs; and methods of analyzing data.

validity

The difficulty of applying reliability to the repertory grid is also true for validity. Due to the infinite number of possible types of grids, validation as a measure is very difficult (Fransella, Bell & Bannister, 2004).

The repertory grid measures association within the framework of the subject´s responses. The responses of each subject form a grid´s population, which then can be statistically analyzed. Significant statistical relationships in a subject´s grid provide intrinsic validity. This is a structural approach to understanding a person´s construct system (Bannister & Mair, 1968; Fransella, Bell & Bannister, 2004).

Along with this structural approach is a content approach which concentrates on the constructs elicited during the taking of the test. Bonarius (1965) and Fransella, Bell & Bannister (2004) have summarized a number of studies that have supported the hypothesis that understanding an individual´s construct system is a valuable asset in both research and psychotherapeutic intervention.

Definition of constructs

The degree of constriction of the construct system

Bieri (1955) used a binary grid to measure cognitive complexity. He tried to find a method to measure "similarity" of the constructs of a grid. Low similarity was considered as high cognitive complexity. Bieri counted the number of exact matches between all possible pairs of constructs. A high number of matches corresponds to high similarity of constructs.

Although Bieri used a binary grid, the same method can be applied to a grid with a 7-point-scale. The overall effect of using a 7-point-scale instead of a binary measure will be that the total number of matches will be lower – because only exact matches are counted. For the purpose of this study *high similarity* of constructs shall be considered as *high constriction of the construct system*. The actual number of matches is set in relation to the maximum number of matches possible, thus giving a number (a percentage) between 0 and 1.

How many possible matches are there for a grid of this study? There are 16 constructs. How many pairs of constructs can be selected? One could systematically start by combining construct #1 with construct # 2, then #1 with #3 and so on. Finally one compares #15 with #16. All in all one gets 120 different pairs of constructs out of 16 single constructs. Each of these 120 pairs of constructs can have between 0 and 16 exact matches – so the maximum number of matches is 120 * 16 = 1920.

If, for example, grid #1 has 459 exact matches, then the resulting proportion is 459 / 1920 = 0,24. That is, the degree of constriction for this grid is 24%.

The degree of psychological isolation

Psychological isolation can be considered as *being out of touch* with relevant other persons (Kelly, 1991a; 1991b). The opposite of *psychological isolation*, namely, *being in touch (emotionally) with other persons,* can be thought of as being reflected within the grid by *the correlations between Self and the other 15 persons*. It is not possible to measure *psychological isolation* directly. What can be done is to measure the intensity of relationships between Self and the other persons. This is similar to the concept of *intensity* developed by Fransella & Bannister (1977).

While Fransella & Bannister (1977) used the concept *intensity* to measure the tightness between constructs, here a corresponding analysis will be conducted to measure the tightness of relationships between elements i.e. persons.

There is one other important difference between the original approach of Fransella & Bannister (1997) and the present analysis: While Fransella & Bannister aimed at defining a global measure which describes a characteristic of the grid as a whole, the focus of the present analysis is to measure the relationship between Self and the other 15 relevant persons.

The following steps are carried out to measure *psychological isolation*:

(1) Compute correlation coefficients between Self and Person 2, Self and Person 3 and so on until Self and Person 16 (that is the Hercules-Person). Each of these coefficients is a number between -1 and +1. Both extremes indicate *relationship*. A high positive value between Self and person 3 for example means a strong similarity between Self and person 3, whereas a high negative value means a strong dissimilarity. Both cases indicate a strong *relationship*. So the following step is justified:

(2) Take the square of the correlation-coefficient – this is a standard measure for the amount of related variation between variables (i.e. persons in the present case). This number ranges between 0 and 1, with 1 indicating a strong relationship and 0 indicating no relationship, namely indifference.

(3) Add up the 15 squared correlation coefficients. This sum serves as a measure for the intensity of relationships between Self and the other 15 persons. A person which perceives itself in relation to other people (regardless of feeling similar or dissimilar) will reach higher values on this scale than a person which lives in a state of indifference towards other people. Thus the concept of *psychological isolation* is translated into getting comparatively low scores on a scale which measures intensity of relatedness between Self and the other persons. Lower scores correspond to a lack of intensity of relatedness – this is considered as more *psychological isolation*.

The degree of self-identification with the Hercules figure

On the repertory grid each element i.e. person is characterized by 16 constructs. A score between 1 and 7 is assigned to each of the 16 constructs. A construct in general does not

simply represent a "scale," like for example "being more or less extrovert." This can be the case--but it need not be. It is better to think of a construct as a kind of dimension--with two poles perceived as opposites, for example "awkward – talented." Therefore the score i.e. numerical value for such a construct is not simply a measure of "more or less of something," rather it is, at least partially, an indicator of "different things" - it is an indicator of a position where a person is emotionally located. A score of "1" would be assigned to someone perceived as "awkward", while a score of "4" would represent the "middle" position on this dimension - but what is the "middle" between "awkward" and "talented"?

As a consequence one should not compute the correlation coefficient between the two vectors "Self" and "Hercules" (each vector consisting of 16 construct-values). Because the 16 values for each person do not simply represent "scores on a scale" but rather do represent "indicators of location on a dimension," their nature is not exclusively ordinal but also more or less nominal, depending on the individual construct. Thus it seems better to compare the Self-person and the Hercules-person on the basis of identity. This is the Biery-approach used to measure construct-complexity. For comparing two constructs, the number of exact matches is determined - thus we get a number between 0 and 16, with 16 indicating perfect identity of the two constructs.

While this approach is valid as far as the nominal nature of the construct-values is concerned, it completely neglects the ordinal nature of the construct-values. It is an "all-or-nothing"-comparison.

A more differentiated method seems to be a generalization of the Biery-approach, namely a distance measure called the "City-Block-Metric." Here the absolute difference between construct values of two persons is computed and added up for all 16 constructs. Because the greatest difference within the range of 1 and 7 is 6, the result is a number between 0 and 16 x 6 = 96. With this measure, zero would indicate a distance of zero, i.e. a

perfect identity of the two persons, while 96 would represent the maximum dissimilarity between the two persons being compared.

Therefore, this analysis measures "Identification of Self with the Hercules figure" by computing the distance between the two persons, using the city-block-metric. Low values indicate small distances, i.e. high degrees of identification of Self with Hercules.

Procedure

The first step in the study was to present the story of Hercules to the entire class verbally. The reason given for the telling of the story was that it sometimes can be helpful in male development to consider popular male myths, and that the Hercules story in particular can sometimes be particularly helpful in helping to manage anger. No mention of the researcher's hypothesis of correlation between the anger levels, attachment trauma and the Hercules myth was made. All subjects believed that they were receiving both the telling of the Hercules myth and the administration of all of the assessments for the same reasons. The specific form of the story told was that discussed under the Literature Review above.

Following the telling of the Hercules story, all of the subjects in the class were given two questionnaire inventories—the Symptom Assessment-45 questionnaire (SA-45) and the State-Trait Anger Expression Inventory (STAXI-2)—and the Kelly Repertory Grid.

In terms of the measurement of attachment trauma, an individual psychological interview was conducted with each subject, and diagnostic criteria that are accepted in the field in terms of attachment trauma are used to make the decision as to whether or not a subject had suffered attachment trauma (Bowlby 1951; 1958; 1969; James, 1994).

Once all of the data for the three instruments had been collected for all subjects, they were then assigned to the experimental or control group according to the following scheme:

Any subject who scored significantly high on the hostility scale of the SA-45 (operationally defined as a T-score higher than 60), or significantly high on any trait scale of

the STAXI-2 (operationally defined as a T-score of 65 or higher), and who also had experienced attachment trauma during his childhood was assigned to the experimental group.

Any subject who scored high on either the SA-45 or STAXI-2 but who had not experienced attachment trauma was excluded from the study.

Those who neither scored high on the SA-45 or STAXI-2 and who had not suffered attachment trauma were assigned to the control group.

In administering the Kelly Repertory Grid, each individual in the group was given a copy of the grid and then asked to fill it out according to specific instructions. The grid contained a list of 15 role titles determined by Kelly (1991a) to represent a large range of important relationships within a person's life. The subjects were then asked to identify individuals from their own lives to go with each role title. They were then asked to consider three predetermined people in the list and to describe how two are alike in some important way. This was then recorded on the grid. They also provided a check mark for the two considered similar, leaving the dissimilar one blank. The subjects were then asked to consider a term that describes the third person in the group, then recording it on the grid as well. They were then asked to look at the rest of the figures in the list and to rate the others on a scale of 1-7. A score of 1 is given to those sharing the construct, and 7 is given to those sharing the other (opposite) characteristic. A score of 2-3 and 5-6 represent lessening degrees of association with the construct and the other characteristic respectively. A score of 4 indicates that the subject does not feel that the element shares either of the characteristics. After the process was completed, each subject had before him a 16 x 16 correlational matrix. The matrix consists of fifteen significant people in the subject's life plus the Hercules figure, by sixteen bipolar constructs. The grid has checks and ratings which represent the intersections of various constructs and figures. The specific measures being taken for this study are degree of constriction of the construct system, psychological isolation, and the degree to which the actual self is clustered with the Hercules figure. The differences in outcomes for the repertory

grid for each individual in both groups were then determined, and a comparison of the outcomes for both groups was assessed according to the hypotheses being tested.

Methods of Statistical Analysis

Statistical Model

Two independent samples (experimental group and control group) of 40 persons each were compared using Student's t-test.

Group 1 ("Control group"): Non-angry, non-hostile (i.e. non-violent) adolescent males who have not suffered attachment trauma.

Group 2 ("Experimental group"): Angry and hostile (i.e. violent) adolescent males who have suffered attachment trauma.

Design for Testing the Hypotheses

Hypotheses 1, 2 and 3

Comparison of two independent samples.

Parallel-Group-Design with 1 experimental group and 1 control group. Both groups have the same size (N = 40).

The **Kolmogorov-Smirnov-Goodness-of-Fit-Test** is used to test whether the data come from normally distributed populations.

The **Levene-Test** is used to test the homogeneity of variances of the two samples.

Student's t-test (one-sided) is used to test whether both samples could have come from populations with the same mean.

95%-**Confidence Intervals** (based on the standard errors of the mean) together with a graphical representation are used to give an impression of the kind and size of the differences between the two groups.

All tests are carried out at the alpha = **5%-level of significance**. Thus the probability of wrongly finding statistical significant differences between experimental and control group, where in reality no such difference exists, is less than 5 % ("error of the first kind").

Hypothesis 4

Pearson's Coefficient of Correlation is used within the experimental group

Hypothesis 5

The LISREL approach of Structural Equation Modeling is used to measure the discrepancy between model and data within the experimental group.

Assumptions

The samples are random samples from normal distributions.

Both samples have the same variance.

The observations are independent from each other.

Statistical Procedures

Computation of means, standard deviations, standard-errors and 95%-confidence-intervals for the mean; histograms with overlayed normal curve

These measures are used to describe the samples and to visualize spread of values and central tendency.

The confidence intervals give an intuitive representation of the meaning of "significant" differences: If the intervals do not overlap, the means being compared may not come from the same population.

A confidence interval indicates the range, wherein the true mean value falls with 95 % probability. The 40 persons in each group are a sample – and as such the sample mean value is only an estimate of the true mean value for the population of all persons, of which the 40 persons of this study could be a sample.

If we want to decide, whether the means of both samples are different in reality, we have to consider the possible ranges of the true values. If the confidence intervals overlap, we cannot be sure, that the means are different. Otherwise, if the confidence intervals do not overlap, it is very unlikely, that the means are identical.

Pearson's Coefficient of Correlation and the Amount of Explained Variance

The main result of a correlation is called the correlation coefficient (designated by "r"). It ranges from -1.0 to +1.0. The closer r is to +1 or -1, the more closely the two variables are related. Within the present context the variables are the 16 persons in the grid. Each person is described by 16 constructs.

If r is close to 0, it means there is no relationship between the variables. If r is positive, it means that as one variable gets larger the other gets larger. If r is negative it means that as one gets larger, the other gets smaller (often called an "inverse" correlation).

While correlation coefficients are normally reported as r = (a value between -1 and +1), squaring them makes them easier to understand. The square of the coefficient (or r square) is equal to the percent of the variation in one variable that is related to the variation in the other. An r of .5 means 25% of the variation is related (.5 squared =.25). An r value of .7 means 49% of the variance is related (.7 squared = .49).

One Sample Kolmogorov-Smirnov Test for Normal Distribution

The t-test requires normally distributed variables. The one-sample Kolmogorov-Smirnov test can be used to test that the sample data are normally distributed.

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, which may be normal, uniform, Poisson, or exponential.

The Kolmogorov-Smirnov Z is computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have come from the specified distribution.

Levene's test for equality of variances

This test as a (prerequisite to the t-test) is used to test whether both populations have equal variances. Depending on the outcome of this test the appropriate version of Student's t-test is used.

Student's t-test for independent samples

The t-test is used to test whether both samples come from populations with the same mean. The Independent-Samples T Test compares means for two groups of cases. Ideally, for this test, the subjects should be randomly assigned to two groups, so that any difference in response is due to the treatment (or lack of treatment) and not to other factors.

Multiple linear regression analysis

Multiple linear regression is used to analyze the possible influence of two or more variables (called independent variables) on one dependent variable.

CHAPTER THREE: RESULTS

Identification-Numbers (ID)

01 Albert (c).sps
02 Alex(C).sps
03 Antonio (c).sps
04 Carl (c).sps
05 Christopher (c).sps
06 Christopher II (c).sps
07 Clarence (c).sps
08 Cliff (c).sps
09 Cliff II (c).sps
10 Danny (c).sps
11 Dave(C).sps
12 Emilio (c).sps
13 Ernesto(C).sps
14 Fletcher(C).sps
15 Frank(c).sps
16 Harold (c).sps
17 Jake (c).sps
18 Jeremy(C).sps
19 Jim(C).sps
20 Joey (c).sps
21 John (c).sps
22 Jon (c).sps
23 Justin(C).sps
24 Keith (c).sps
25 Lance (c).sps
26 Larry (c).sps
27 Lawrence(C).sps
28 Lyle (c).sps
29 Michael (c).sps
30 Michael II(c).sps
31 Randall (c).sps
32 Reggie (c).sps
33 Rod (c).sps
34 Ronald (c).sps
35 Ruben(c).sps
36 Sam (c).sps
37 Thomas(c).sps
38 Tony (c).sps
39 Tyler (C).sps
40 William (c).sps
41 Alex (e).sps
42 Allen (e).sps
43 Andrew (e).sps
44 Andrew II (e).sps
45 Anthony (e).sps
46 Carlos (e).sps
47 Charles (e).sps
48 Chris (e).sps
49 Christopher (e).sps
50 Clarence (e).sps
51 Clarence II(e).sps
52 Cliff (e).sps
53 Clyde (e).sps
54 David (e).sps
55 Don (e).sps
56 Fred (e).sps
57 Gilbert, Christopher G.(e).sps
58 Jason (e).sps
59 Jeff (e).sps
60 Jibriel (e).sps
61 Joe (e).sps
62 John (e).sps
63 Jonathan (e).sps
64 Justin(E).sps
65 Kevin (e).sps
66 Kevin II(e).sps
67 Lance (e).sps
68 Leonard (e).sps
69 Marco (e).sps
70 Max (e).sps
71 Michael (e).sps
72 Richard (e).sps
73 Ronald (e).sps
74 Sam (e).sps
75 Stephan (e).sps
76 Steven (e).sps
77 Ted (e).sps
78 Thomas (e).sps
79 Wesley (e).sps
80 William (e).sps

Hypothesis 1

Matching Score (Bieri Complexity)

Bieri (1955) derived this statistic in an attempt to measure construct complexity. The output generated from this option is shown in Figure 2.4.2. The "Total Number of Matches in Grid" is computed by comparing pairs of constructs across the elements in the grid. A "match" constitutes an identical rating for a given element on two constructs. For each pair of constructs the number of matches is identified, and the "Total Number of Matches in Grid" is computed as the sum of all matches. Results can range from 0 to the "Maximum Number of Matches in Grid" which here is computed as (16 **C** 2) * 16 = 120 * 16 = 1920.

A high matching score indicates lower complexity, and a low matching score indicates greater complexity. The "Proportion of Matches in Grid" is computed by dividing the "Total Number of Matches in Grid" by the "Maximum Number of Matches in Grid." As a proportion, this value ranges from 0 to 1 and can hence be used to compare the complexity of grids.

.

GROUP	ID	BIERI	GROUP	ID	BIERI
1	1	,24	2	41	,24
1	2	,18	2	42	,19
1	3	,26	2	43	,38
1	4	,22	2	44	,48
1	5	,22	2	45	,21
1	6	,19	2	46	,34
1	7	,20	2	47	,31
1	8	,21	2	48	,20
1	9	,17	2	49	,31
1	10	,20	2	50	,22
1	11	,26	2	51	,20
1	12	,20	2	52	,16
1	13	,17	2	53	,23
1	14	,18	2	54	,23
1	15	,20	2	55	,18
1	16	,20	2	56	,27
1	17	,22	2	57	,31
1	18	,16	2	58	,24
1	19	,18	2	59	,18
1	20	,20	2	60	,18
1	21	,18	2	61	,18
1	22	,19	2	62	,18
1	23	,38	2	63	,22
1	24	,18	2	64	,41
1	25	,19	2	65	,31
1	26	,26	2	66	,25
1	27	,19	2	67	,19
1	28	,25	2	68	,28
1	29	,20	2	69	,33
1	30	,23	2	70	,21
1	31	,17	2	71	,21
1	32	,16	2	72	,25
1	33	,19	2	73	,22
1	34	,23	2	74	,21
1	35	,30	2	75	,21
1	36	,22	2	76	,25
1	37	,17	2	77	,22
1	38	,21	2	78	,28
1	39	,18	2	79	,20
1	40	,21	2	80	,21

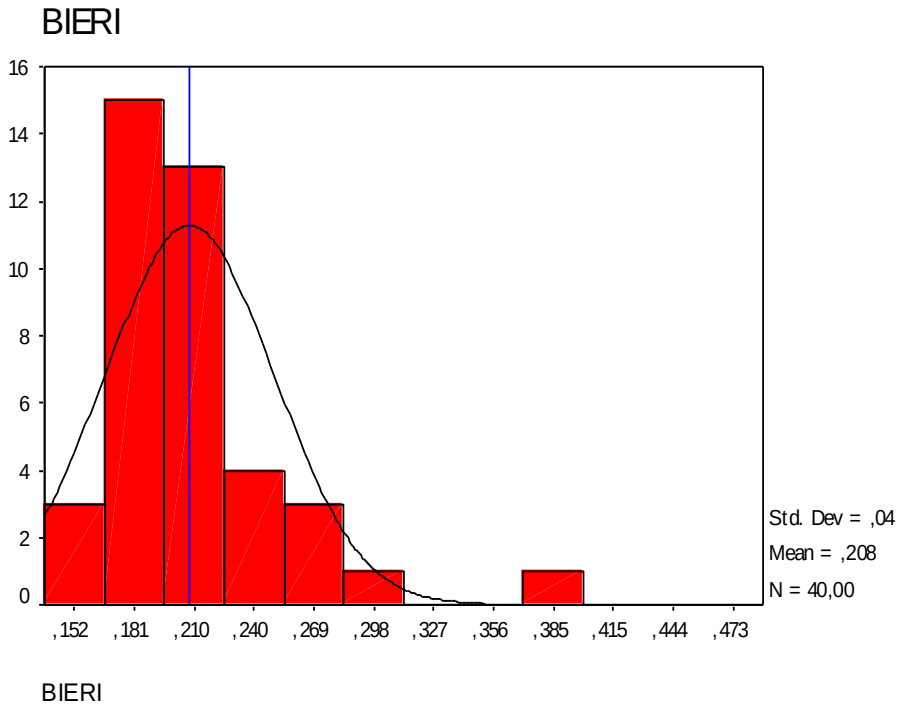
Number of cases read: 80
Number of cases listed: 80

Report

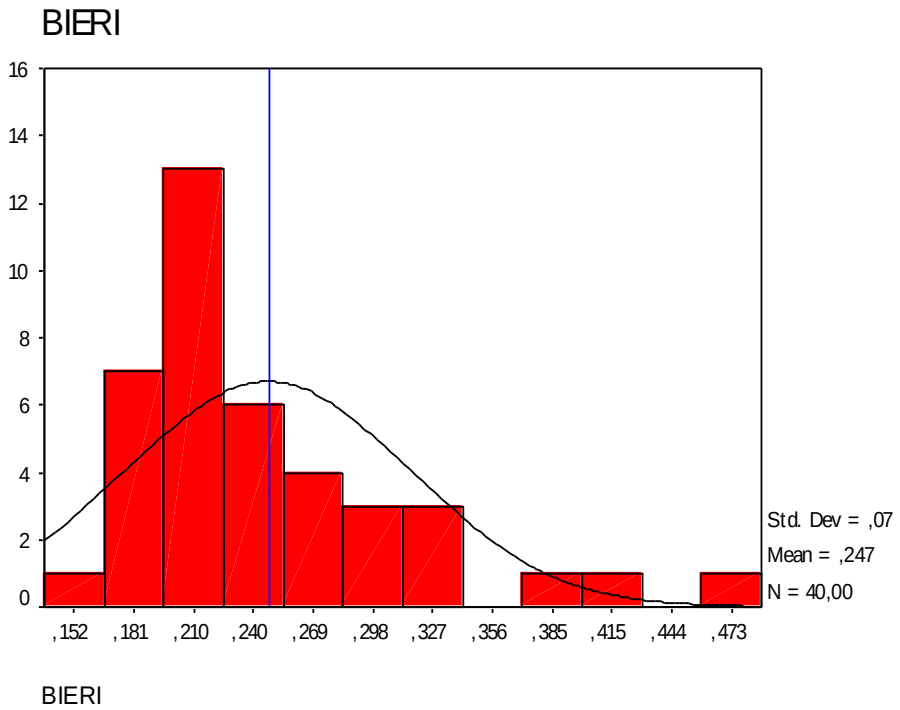
BIERI

	GROUP		
	1 control group	2 experimental group	Total
Mean	,2081	,2466	,2273
N	40	40	80
Std. Deviation	,04119	,06933	,05988

Control Group



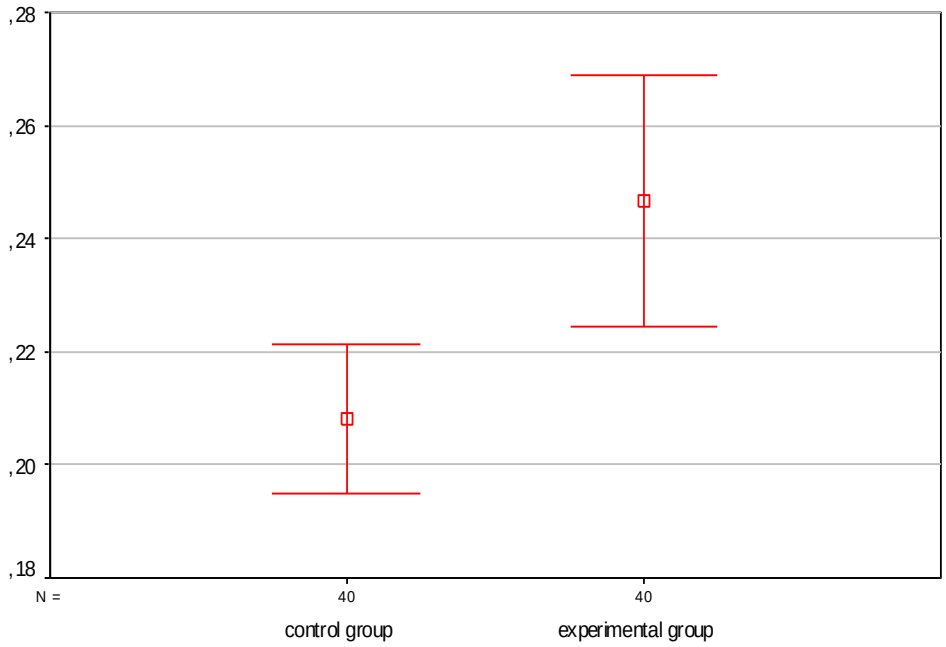
Experimental Group



The mean value of the control group is lower than the mean value of the experimental group.

Can this difference be explained by chance?

One way to answer the question is to compute 95%-confidence intervals for the mean values.



Descriptives

BIERI

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 control group	40	,2081	,04119	,00651	,1949	,2213	,16	,38
2 experimental group	40	,2466	,06933	,01096	,2244	,2687	,16	,48
Total	80	,2273	,05988	,00669	,2140	,2406	,16	,48

One-Sample Kolmogorov-Smirnov Test

The t-test requires normally distributed variables. The one-sample Kolmogorov-Smirnov test can be used to test that BIERI is normally distributed.

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, which may be normal, uniform, Poisson, or exponential. The Kolmogorov-Smirnov Z is computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have come from the specified distribution.

Control Group

One-Sample Kolmogorov-Smirnov Test

		BIERI
N		40
Normal Parameters[a,b]	Mean	,2081
	Std. Deviation	,04119
Most Extreme Differences	Absolute	,144
	Positive	,144
	Negative	-,109
Kolmogorov-Smirnov Z		,910
Asymp. Sig. (2-tailed)		,379

a. Test distribution is Normal.

b. Calculated from data.

Experimental Group

One-Sample Kolmogorov-Smirnov Test

		BIERI
N		40
Normal Parameters[a,b]	Mean	,2466
	Std. Deviation	,06933
Most Extreme Differences	Absolute	,175
	Positive	,175
	Negative	-,128
Kolmogorov-Smirnov Z		1,109
Asymp. Sig. (2-tailed)		,171

a. Test distribution is Normal.

b. Calculated from data.

Independent-Samples T Test

The Independent-Samples T Test procedure compares means for two groups of cases.

Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
BIERI	1 control group	40	,2081	,04119	,00651
	2 experimental group	40	,2466	,06933	,01096

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
BIERI	Equal variances assumed	7,837	,006	-3,018	78	,003	-,0385	,01275	-,06386	-,01309
	Equal variances not assumed			-3,018	63,484	,004	-,0385	,01275	-,06395	-,01300

Result: Hypothesis 1

The experimental group does demonstrate a statistically highly significant greater degree of constriction than the control group (t-test, $p < 1\%$).

Hypothesis 2

What is the Degree of "Psychological Isolation" and How can it be Measured?

"Psychological isolation" can be considered as "being out of touch" with relevant other persons. The opposite of "psychological isolation", namely "being in touch (emotionally) with other persons" can be thought of as being reflected within the grid by the correlations between Self and the other 15 persons. It is not possible to measure "psychological isolation" directly. What can be done is to measure the intensity of relationships between Self and the other persons. This is similar to the concept of "intensity" developed by Fransella & Bannister (1977).

Fransella and Bannister (1977) described “intensity” as a general measure of the tightness/looseness of constructs in a repertory grid. Idiogrid reproduces this statistic by first computing the Pearson Product Moment correlations among the constructs using pairwise deletion for missing values... “Intensity” is computed by multiplying each squared correlation by 100, and summing the results. Only the unique correlations below the diagonal of the correlation matrix are considered when computing Intensity... High Intensity scores indicate tighter constructions, low scores indicate looser constructions (Idiogrid manual, p. 37).

While Fransella & Bannister used the concept "intensity" to measure the tightness between constructs, here a corresponding analysis will be conducted to measure the tightness of relationships between elements i.e. persons.

There is one other important difference between the original approach of Fransella & Bannister and the present analysis: While Fransella & Bannister (1977) aimed at defining a global measure which describes a characteristic of the grid as a whole, the focus of the present analysis is to measure the relationship between Self and the other 15 relevant persons.

The main result of a correlation is called the correlation coefficient (or "r"). It ranges from -1.0 to +1.0. The closer r is to +1 or -1, the more closely the two variables are related. Within the present context the variables are the 16 persons in the grid. Each person is described by 16 constructs.

If r is close to 0, it means there is no relationship between the variables. If r is positive, it means that as one variable gets larger the other gets larger. If r is negative it means that as one gets larger, the other gets smaller (often called an "inverse" correlation).

While correlation coefficients are normally reported as r = (a value between -1 and +1), squaring them makes then easier to understand. The square of the coefficient (or r square) is equal to the percent of the variation in one variable that is related to the variation in the other. An r of .5 means 25% of the variation is related (.5 squared =.25). An r value of .7 means 49% of the variance is related (.7 squared = .49).

Summary of procedure:

How to Measure Tightness/looseness i.e. Intensity between Self and the Other 15 Relevant Persons

(1) Compute correlation coefficients between Self and Person 2, Self and Person 3 and so on until Self and Person 16 (that is the Hercules-Person). Each of these coefficients is a number between -1 and +1. Both extrems indicate "relationship". A high positive value between Self and person 3 for example means a strong similarity between Self and person 3, while a high negativ value means a strong dissimilarity. Both cases indicate a strong "relationship". So the following step is justified:

(2) Take the square of the correlation-coefficient - this is a standard measure for the amount of related variation between variables (i.e. persons in the present case). This number ranges

between 0 and 1, with 1 indicating a strong relationship and 0 indicating no relationship, namely indifference.

(3) Add up the 15 squared correlation coefficients. This sum serves as a measure for the intensity of relationships between Self and the other 15 persons. A person which perceives itself in relation to other people (regardless of feeling similar or dissimilar) will reach higher values on this scale than a person which lives in a state of indifference towards other people.

Thus the concept of "psychological isolation" is translated into getting comparatively low scores on a scale which measures intensity of relatedness between Self and the other persons.

This scale will be named RELATION .

Scores on scale RELATION for members of control group (1) and experimental group (2).
Higher scores correspond to higher intensity of relatedness with other persons.
Lower scores correspond to a lack of intensity of relatedness – this is considered as more "psychological isolation".

GROUP	ID	RELATION	GROUP	ID	RELATION
1	1	1,29	2	41	3,59
1	2	1,16	2	42	1,15
1	3	4,42	2	43	1,52
1	4	3,05	2	44	1,74
1	5	4,04	2	45	1,89
1	6	5,59	2	46	,95
1	7	1,75	2	47	1,64
1	8	2,63	2	48	3,12
1	9	2,84	2	49	2,02
1	10	1,17	2	50	2,78
1	11	4,13	2	51	1,45
1	12	1,99	2	52	1,30
1	13	,82	2	53	1,90
1	14	3,07	2	54	1,28
1	15	4,83	2	55	3,02
1	16	5,24	2	56	1,78
1	17	5,05	2	57	2,02
1	18	2,99	2	58	3,81
1	19	3,10	2	59	3,16
1	20	,93	2	60	1,31
1	21	2,02	2	61	1,13
1	22	2,55	2	62	1,07
1	23	,99	2	63	3,65
1	24	5,00	2	64	1,24
1	25	4,07	2	65	,76
1	26	2,72	2	66	3,85
1	27	1,11	2	67	1,19
1	28	1,30	2	68	1,15
1	29	,75	2	69	1,88
1	30	4,33	2	70	1,60
1	31	,75	2	71	1,61
1	32	3,75	2	72	2,11
1	33	1,84	2	73	1,61
1	34	3,11	2	74	1,57
1	35	,95	2	75	1,42
1	36	2,14	2	76	2,49
1	37	1,08	2	77	1,35
1	38	1,68	2	78	2,49
1	39	,60	2	79	1,51
1	40	,77	2	80	1,01

Number of cases read: 80
Number of cases listed: 80

Report

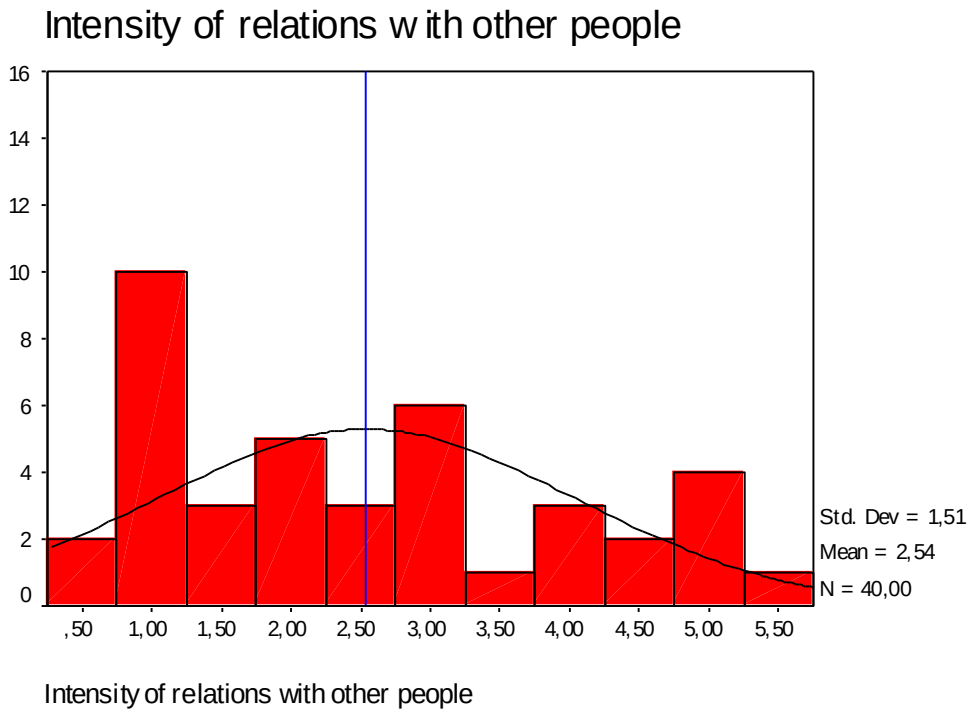
RELATION

	GROUP		
	1 control group	2 experimental group	Total
Mean	2,5399	1,9034	2,2217
N	40	40	80
Std. Deviation	1,50625	,85029	1,25679

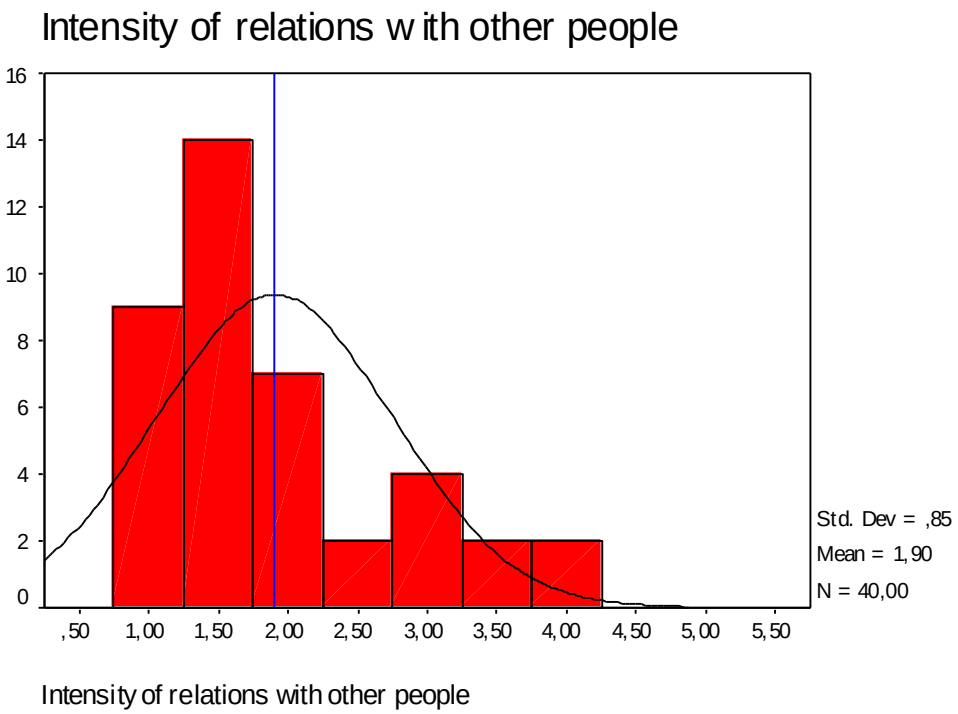
The experimental group shows a lower mean value than the control group. This would be in accordance with the expected higher degree of psychological isolation of the members of the experimental group. It remains to be seen, whether this difference is statistically significant or can be explained as the result of random influences.

The graphs on this page visualize the distributions of intensity of relatedness for the two groups. The blue line indicates the mean value.

Control Group



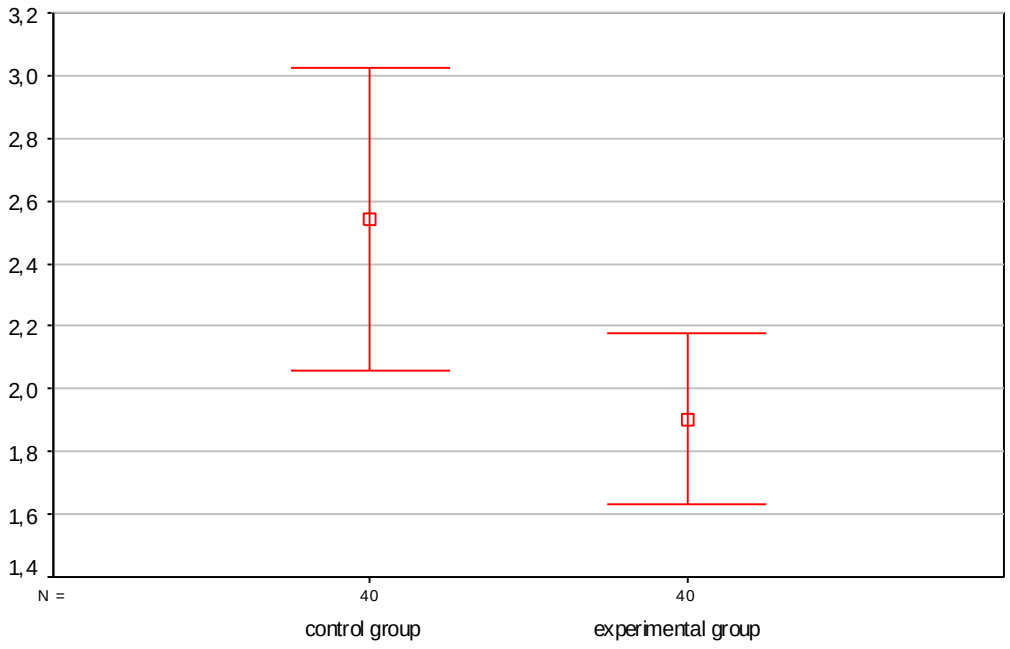
Experimental Group



The mean value of the experimental group is lower than the mean value of the control group.

Can this difference be explained by chance?

One way to answer the question is to compute 95%-confidence intervals for the mean values.



The confidence intervals do overlap by only a small amount. So this is an indication (not a prove), that the experimental group may well have a lower mean intensity of relatedness than the control group. A lower mean intensity of relatedness corresponds conceptually to a higher degree of psychological isolation.

Descriptives

RELATION Intensity of relations with other people

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 control group	40	2,5399	1,50625	,23816	2,0582	3,0217	,60	5,59
2 experimental group	40	1,9034	,85029	,13444	1,6315	2,1754	,76	3,85
Total	80	2,2217	1,25679	,14051	1,9420	2,5014	,60	5,59

One-Sample Kolmogorov-Smirnov Test

The t-test requires normally distributed variables. The one-sample Kolmogorov-Smirnov test can be used to test that RELATION is normally distributed.

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, which may be normal, uniform, Poisson, or exponential. The Kolmogorov-Smirnov Z is computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have come from the specified distribution.

Control Group

One-Sample Kolmogorov-Smirnov Test

		RELATION Intensity of relations with other people
N		40
Normal Parameters[a,b]	Mean	2,5399
	Std. Deviation	1,50625
Most Extreme Differences	Absolute	,145
	Positive	,145
	Negative	-,099
Kolmogorov-Smirnov Z		,920
Asymp. Sig. (2-tailed)		,366

a. Test distribution is Normal.

b. Calculated from data.

With p = 0,366 there is no statistically significant departure from a normal distribution.

Experimental Group

One-Sample Kolmogorov-Smirnov Test

		RELATION Intensity of relations with other people
N		40
Normal Parameters[a,b]	Mean	1,9034
	Std. Deviation	,85029
Most Extreme Differences	Absolute	,174
	Positive	,174
	Negative	-,106
Kolmogorov-Smirnov Z		1,103
Asymp. Sig. (2-tailed)		,175

a. Test distribution is Normal.

b. Calculated from data.

With p = 0,175 there is no statistically significant departure from a normal distribution.

Independent-Samples T Test

The Independent-Samples T Test procedure compares means for two groups of cases.

Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
RELATION Intensity of relations with other people	1 control group	40	2,5399	1,50625	,23816
	2 experimental group	40	1,9034	,85029	,13444

Before we can proceed with the t-test, another preliminary test ist needed to decide on the homogenity of variances between samples. **Levene's test for equality of variances** shows that the variances of the samples are different ($p < 0,001$). Thus the corresponding version of the t-test is used ("equal variances not assumed"). Here we get a t-value of 2,327 with $p = 0,023$. Thus the means between the two samples are different indeed. The probability of getting two mean values being so different just by chance is less than 5%.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
RELATION Intensity of relations with other people	Equal variances assumed	18,138	,000	2,327	78	,023	,6365	,27349	,09205	1,18099
	Equal variances not assumed			2,327	61,565	,023	,6365	,27349	,08975	1,18329

Result: Hypothesis 2

The experimental group does demonstrate a statistically significant greater degree of psychological isolation than the control group (t-test, $p < 5\%$).

Hypothesis 3

What is the Degree of "Self-Identification with the Hercules figure" and How can it be Measured?

On the repertory grid each element i.e. person is characterized by 16 constructs. A score between 1 and 7 is assigned to each of the 16 constructs. A construct in general does not simply represent a "scale" like for example "being more or less extrovert". This can be the case - but it need not be! It is better to think of a construct as a kind of "dimension" - with two poles perceived as opposites, for example "akward - talented". Therefore the score i.e. numerical value for such a construct is not simply a measure of "more or less of something", rather it is, at least partially, an indicator of "different things" - it is an indicator of a position where a person is emotionally located. A score of "1" would be assigned to someone perceived as "awkward", while a score of "4" would represent the "middle" position on this dimension - but what is the "middle" between "awkward" and "talented"?

As a consequence one should not compute the correlation coefficient between the two vectors "Self" and "Hercules" (each vector consisting of 16 construct-values). Because the 16 values

for each person do not simply represent "scores on a scale" but rather do represent "indicators of location on a dimension", their nature is not exclusively ordinal but also more or less nominal, depending on the individual construct. Thus it seems better to compare the Self-person and the Hercules-person on the basis of identity. This is the Biery-approach used to measure construct-complexity. For comparing two constructs, the number of exact matches is determined - thus we get a number between 0 and 16, with 16 indicating perfect identity of the two constructs.

While this approach is valid as far as the nominal nature of the construct-values is concerned, it completely neglects the ordinal nature of the construct-values. It is an "all-or-nothing"-comparison.

A more differentiated method seems to be a generalization of the Biery-approach, namely a distance measure called the "City-Block-Metric". Here the absolute difference between construct values of two persons is computed and added up for all 16 constructs.
Because the greatest difference within the range of 1 and 7 is 6, the result is a number between 0 and 16 x 6 = 96. With this measure, zero would indicate a distance of zero, i.e. a perfect identity of the two persons, while 96 would represent the maximum dissimilarity between the two persons being compared.

Therefore, the following analysis measures "Identification of Self with the Hercules figure" by computing the distance between the two persons, using the city-block-metric. Low values indicate small distances, i.e. high degrees of identification of Self with Hercules.

The measure is named DIST_SH.

Scores on scale DIST_SH for members of control group (1) and experimental group (2).
Higher scores correspond to greater distance between Self and Hercules.
Lower scores correspond to lower distance between Self and Hercules – this is considered as more identification.

GROUP	ID	DIST_SH	GROUP	ID	DIST_SH
1	1	24,0	2	41	46,0
1	2	33,0	2	42	26,0
1	3	37,0	2	43	24,0
1	4	22,0	2	44	21,0
1	5	22,0	2	45	28,0
1	6	48,0	2	46	36,0
1	7	52,0	2	47	33,0
1	8	55,0	2	48	34,0
1	9	41,0	2	49	29,0
1	10	36,0	2	50	35,0
1	11	22,0	2	51	43,0
1	12	43,0	2	52	47,0
1	13	42,0	2	53	56,0
1	14	41,0	2	54	29,0
1	15	52,0	2	55	31,0
1	16	41,0	2	56	21,0
1	17	47,0	2	57	29,0
1	18	41,0	2	58	29,0
1	19	39,0	2	59	24,0
1	20	38,0	2	60	36,0
1	21	48,0	2	61	35,0
1	22	45,0	2	62	47,0
1	23	51,0	2	63	27,0
1	24	45,0	2	64	24,0
1	25	49,0	2	65	37,0
1	26	25,0	2	66	43,0
1	27	36,0	2	67	33,0
1	28	25,0	2	68	25,0
1	29	28,0	2	69	25,0
1	30	23,0	2	70	61,0
1	31	38,0	2	71	27,0
1	32	43,0	2	72	21,0
1	33	46,0	2	73	50,0
1	34	21,0	2	74	27,0
1	35	31,0	2	75	49,0
1	36	53,0	2	76	30,0
1	37	36,0	2	77	30,0
1	38	50,0	2	78	30,0
1	39	38,0	2	79	29,0
1	40	38,0	2	80	39,0

Number of cases read: 80
Number of cases listed: 80

Report

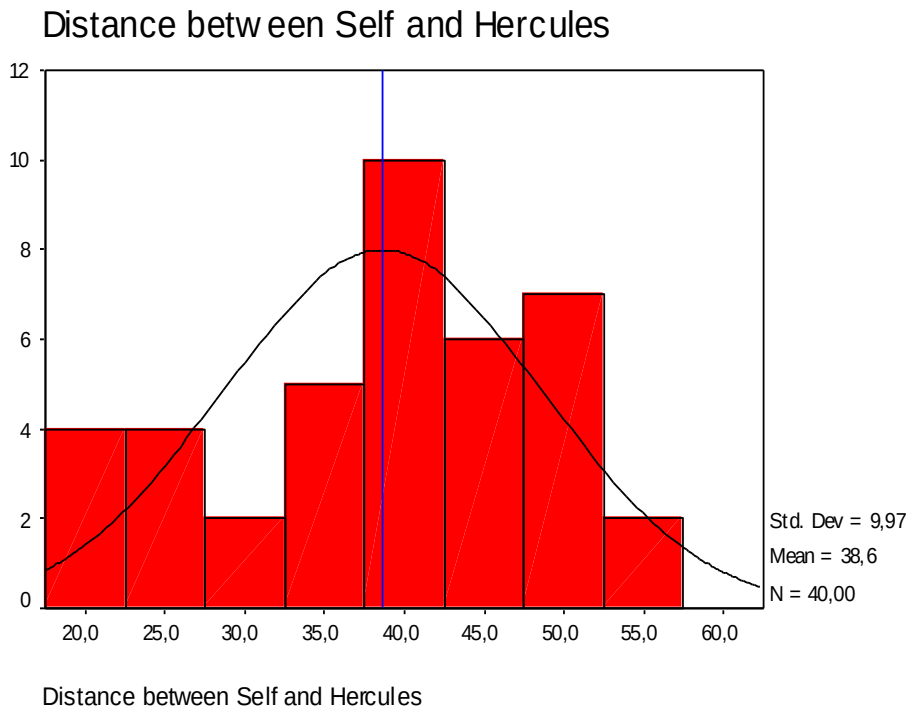
DIST_SH Distance between Self and Hercules

	GROUP		
	1 control group	2 experimental group	Total
Mean	38,62	33,65	36,14
N	40	40	80
Std. Deviation	9,966	9,841	10,154

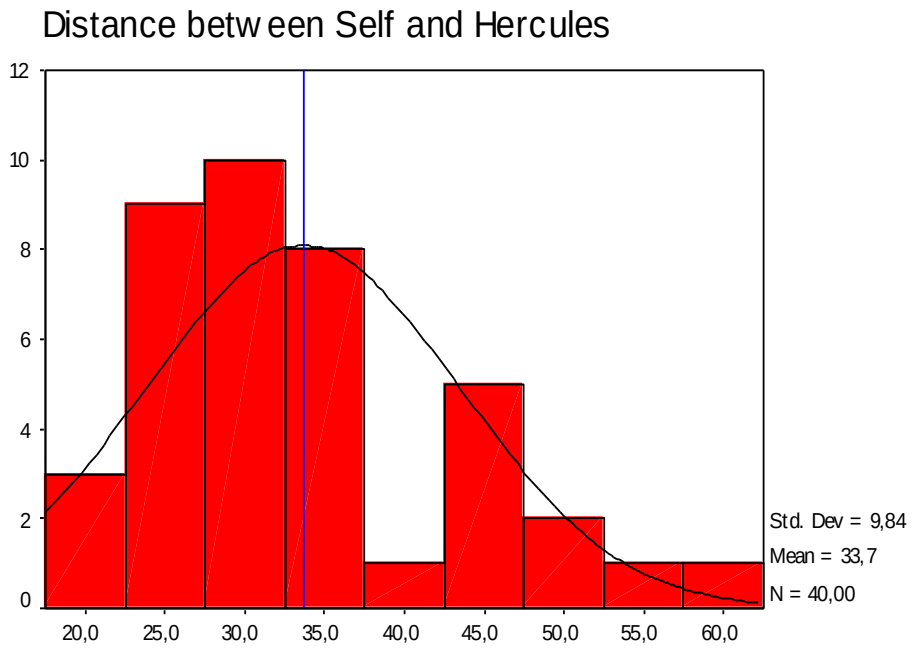
The experimental group shows a lower mean value than the control group. This would be in accordance with the expected higher degree of identification of the members of the experimental group with the Hercules figure.

The graphs on this page visualize the distributions of identification for the two groups. The blue line indicates the mean value.

Control Group

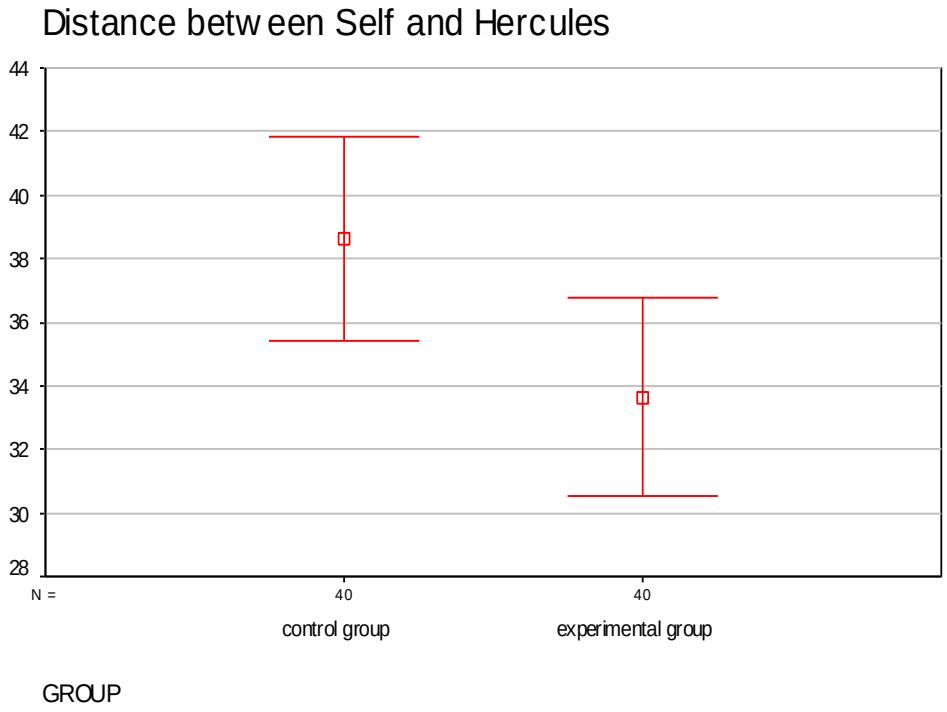


Experimental Group



The mean value of the experimental group is lower than the mean value of the control group. **Can this difference be explained by chance?**

One way to answer the question is to compute 95%-confidence intervals for the mean values.



The confidence intervals do overlap by only a small amount. So this is an indication (not a proof), that the experimental group may well have a lower mean distance to Hercules than the control group. A lower mean distance to Hercules corresponds conceptually to a higher degree of psychological identification with the Hercules figure.

Descriptives

DIST_SH Distance between Self and Hercules

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1 control group	40	38,625	9,9658	1,5757	35,438	41,812	21,0	55,0
2 experimental group	40	33,650	9,8412	1,5560	30,503	36,797	21,0	61,0
Total	80	36,138	10,1542	1,1353	33,878	38,397	21,0	61,0

One-Sample Kolmogorov-Smirnov Test

The t-test requires normally distributed variables. The one-sample Kolmogorov-Smirnov test can be used to test that DIST_SH is normally distributed.

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, here the Normal Distribution The Kolmogorov-Smirnov Z is computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have come from the specified distribution.

Control Group

One-Sample Kolmogorov-Smirnov Test

		DIST_SH Distance between Self and Hercules
N		40
Normal Parameters[a,b]	Mean	38,625
	Std. Deviation	9,9658
Most Extreme Differences	Absolute	,121
	Positive	,114
	Negative	-,121
Kolmogorov-Smirnov Z		,766
Asymp. Sig. (2-tailed)		,600

a. Test distribution is Normal.

b. Calculated from data.

With p = 0,600 there is no statistically significant departure from a normal distribution.

Experimental Group

One-Sample Kolmogorov-Smirnov Test

		DIST_SH Distance between Self and Hercules
N		40
Normal Parameters[a,b]	Mean	33,650
	Std. Deviation	9,8412
Most Extreme Differences	Absolute	,170
	Positive	,170
	Negative	-,099
Kolmogorov-Smirnov Z		1,073
Asymp. Sig. (2-tailed)		,200

a. Test distribution is Normal.

b. Calculated from data.

With p = 0,200 there is no statistically significant departure from a normal distribution.

Independent-Samples T Test

The Independent-Samples T Test procedure compares means for two groups of cases.

Group Statistics

	GROUP	N	Mean	Std. Deviation	Std. Error Mean
DIST_SH Distance between Self and Hercules	1 control group	40	38,625	9,9658	1,5757
	2 experimental group	40	33,650	9,8412	1,5560

Before we can proceed with the t-test, another preliminary test ist needed to decide on the homogenity of variances between samples. **Levene's test for equality of variances** shows that the variances of the samples are not different (p = 0,840). Thus the corresponding version of the t-test is used ("equal variances assumed"). Here we get a t-value of 2,247 with p = 0,027. Thus the means between the two samples are different indeed. The probability of getting two mean values being so different just by chance is less than 5%.

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
DIST_SH Distance between Self and Hercules	Equal variances assumed	,041	,840	2,247	78	,027	4,975	2,2145	,5662	9,3838
	Equal variances not assumed			2,247	77,988	,027	4,975	2,2145	,5662	9,3838

Result: Hypothesis 3

The experimental group does demonstrate a statistically significant greater degree of psychological identification of Self with the Hercules figure than the control group (t-test, $p < 5\%$).

Hypothesis 4

For the group of angry/hostile adolescent males with attachment trauma (that is the "experimental group") this study addresses the following two questions:

(1) Is there a correlation between CONSTRICTION and ISOLATION?

(2) Is the assumption of a causal relationship between IDENTIFICATION (dependant variable) and CONSTRICTION and ISOLATION (independant variables) in accordance with the observed correlations of the empirical data of this study?

Question (1) leads to **Hypothesis 4:** Within the group of angry/hostile adolescent males with attachment trauma (that is the "experimental group") there is a correlation between CONSTRICTION and ISOLATION.

Outline of the Analysis

(1) Show distribution of CONSTRICTION within the experimental group (N = 40). Is CONSTRICTION normally distributed? Check with Kolmogorov-Smirnov-Test.

(2) Define ISOLATION in terms of "relatedness". A lower intensity of relatedness corresponds conceptually to a higher degree of psychological isolation. So a new variable named ISOLATION is created as the inversely recoded form of RELATION. The reason for this is that higher numerical values should correspond to more isolation.

(3) Show distribution of ISOLATION within the experimental group (N = 40). Is ISOLATION normally distributed? Check with Kolmogorov-Smirnov-Test.

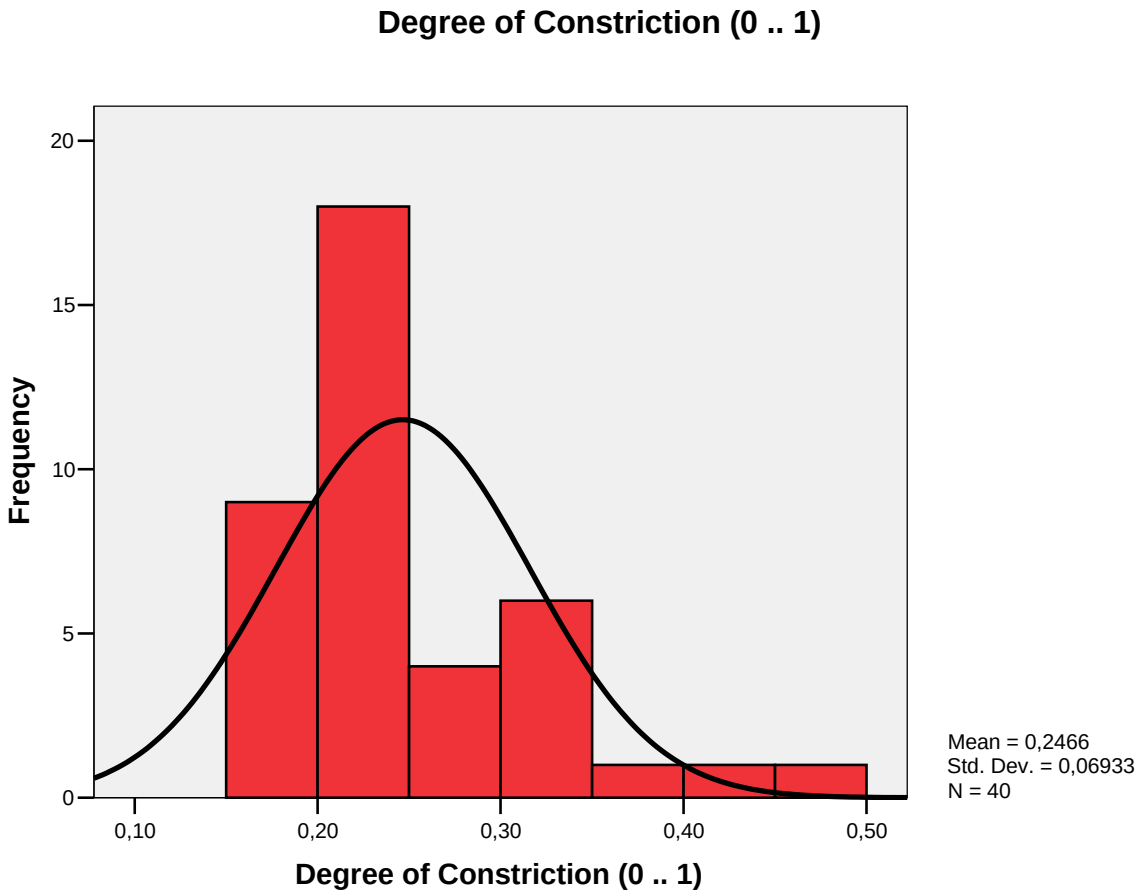
(4) Show scatterdiagram of CONSTRICTION and ISOLATION. Is there a visible trend?

(5) Compute coefficient of correlation r between CONSTRICTION and ISOLATION. If both variables are normally distributed, use Pearson correlation coefficient. Otherwise use nonparametric Spearman rank correlation.

Does such a correlation exist? What is the probability of non-existence, that is, $r = 0$?

If such a correlation exists: Is it positive or negative? How strong is it? What is the amount of explained variance?

Step 1: Show distribution of CONSTRICTION within the experimental group (N = 40). Is CONSTRICTION normally distributed? Check with Kolmogorov-Smirnov-Test.



One-Sample Kolmogorov-Smirnov Test

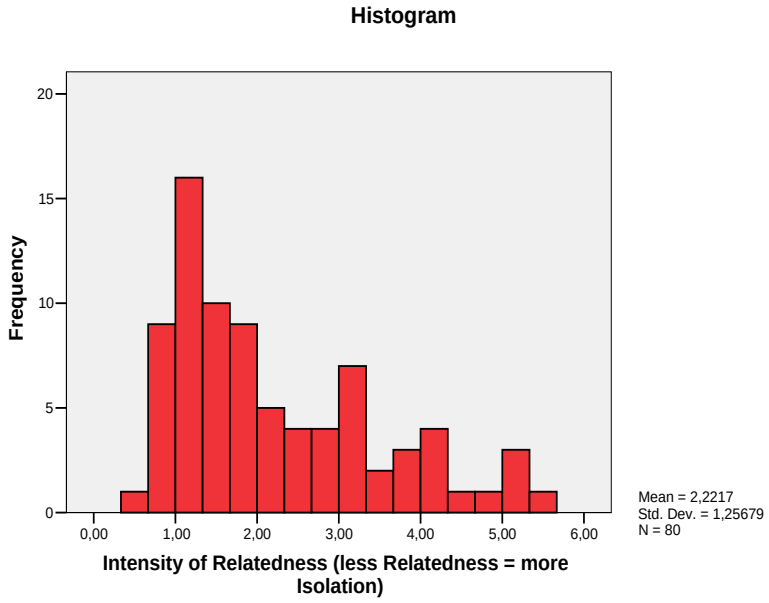
		constriction Degree of Constriction (0 .. 1)
N		40
Normal Parameters[a,b]	Mean	,2466
	Std. Deviation	,06933
Most Extreme Differences	Absolute	,175
	Positive	,175
	Negative	-,128
Kolmogorov-Smirnov Z		1,109
Asymp. Sig. (2-tailed)		,171

a. Test distribution is Normal.

b. Calculated from data.

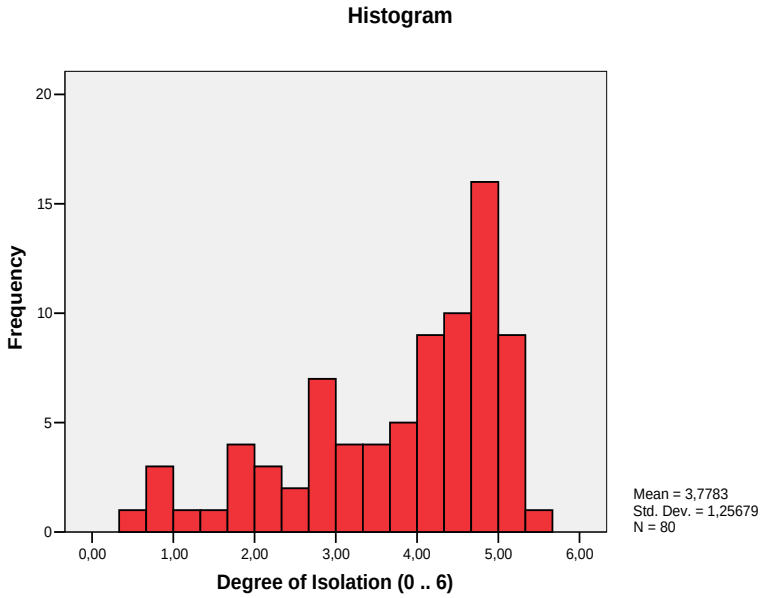
Result: With p = 17,1 % there is no significant deviation between CONSTRICTION and the corresponding normal distribution. Thus CONSTRICTION can be regarded as being normally distributed.

Step 2: Define ISOLATION in terms of "relatedness". A lower intensity of relatedness corresponds conceptually to a higher degree of psychological isolation. So a new variable named ISOLATION is created as the inversely recoded form of RELATION. The reason for this is that higher numerical values should correspond to more isolation.



Before:

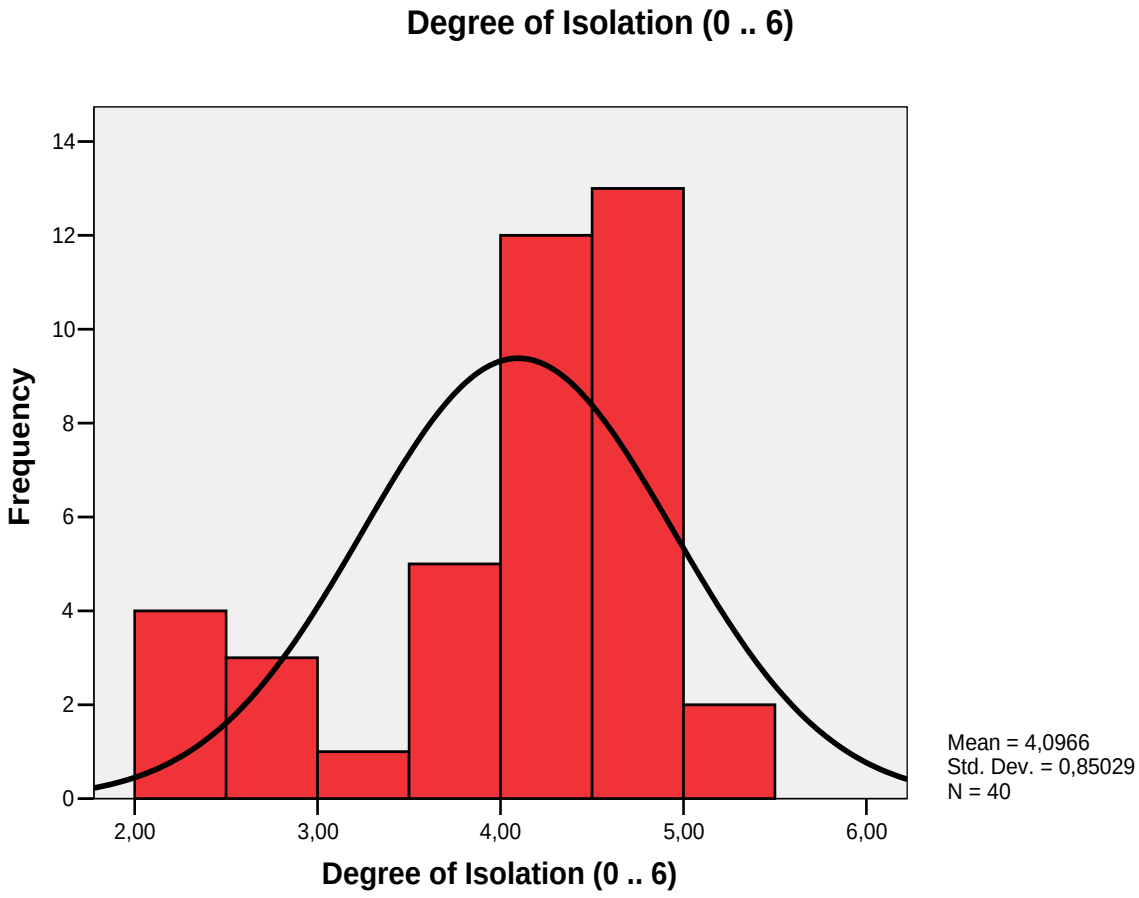
Intensity of Relatedness



After:

Degree of Isolation

Step 3: Show distribution of ISOLATION within the experimental group (N = 40). Is ISOLATION normally distributed? Check with Kolmogorov-Smirnov-Test.



One-Sample Kolmogorov-Smirnov Test

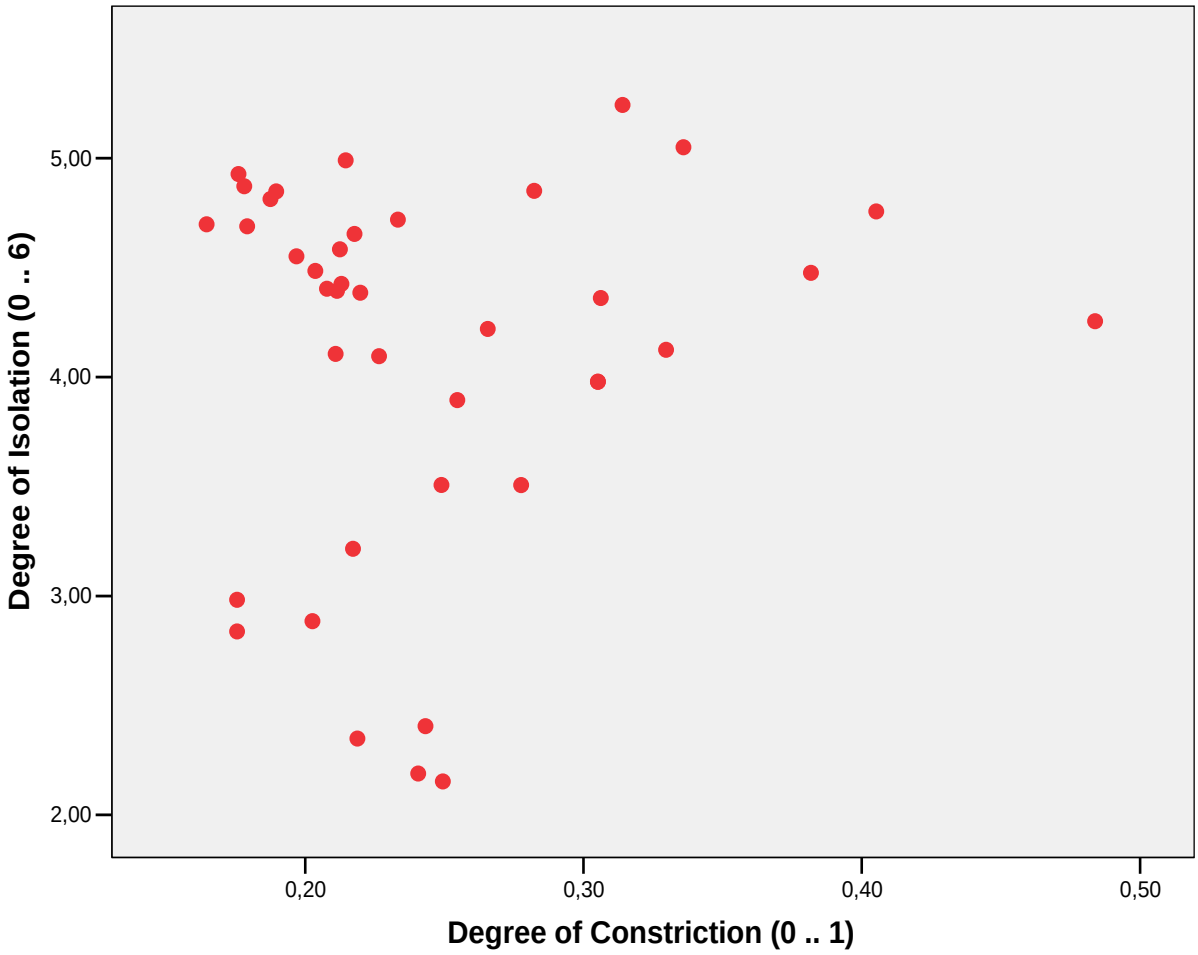
		isolation Degree of Isolation (0 .. 6)
N		40
Normal Parameters[a,b]	Mean	4,0966
	Std. Deviation	,85029
Most Extreme Differences	Absolute	,174
	Positive	,106
	Negative	-,174
Kolmogorov-Smirnov Z		1,103
Asymp. Sig. (2-tailed)		,175

a. Test distribution is Normal.

b. Calculated from data.

With p = 17,5 % there is no significant deviation between ISOLATION and the corresponding normal distribution. Thus ISOLATION can be regarded as being normally distributed and hence the Pearson correlation coefficient will be used in step 5.

Step 4: Show scatter diagram of CONSTRICTION and ISOLATION. Is there a visible trend?



No clear relationship can be seen.

Step 5: Compute coefficient of correlation r between CONSTRICTION and ISOLATION. As both variables are normally distributed, the Pearson correlation coefficient is used.

Does such a correlation exist? What is the probability of non-existence, that is, r = 0 ?

Correlations

		isolation Degree of Isolation (0 .. 6)
constriction Degree of Constriction (0 .. 1)	Pearson Correlation	,104
	Sig. (2-tailed)	,522
	N	40

Result: Hypothesis 4

The probability for r = 0 is p = 52,2 %. There is no significant correlation between ISOLATION and CONSTRICTION (within the experimental group). Hypothesis 4 is not supported by the data of the experimental group.

Hypothesis 5

As a consequence of the above results of hypothesis 4, CONSTRICTION and ISOLATION can be considered as independent factors. This is important for analyzing the next question: Is the assumption of a causal relationship between IDENTIFICATION (dependant variable) and CONSTRICTION and ISOLATION (independant variables) in accordance with the observed correlations of the empirical data of this study? This question (2) leads to **Hypothesis 5**: Within the group of violent adolescent males with attachment trauma (that is the "experimental group") IDENTIFICATION with the Hercules figure is caused by CONSTRICTION and ISOLATION.

Outline of the Analysis

It has already been shown that CONSTRICTION and ISOLATION are normally distributed.

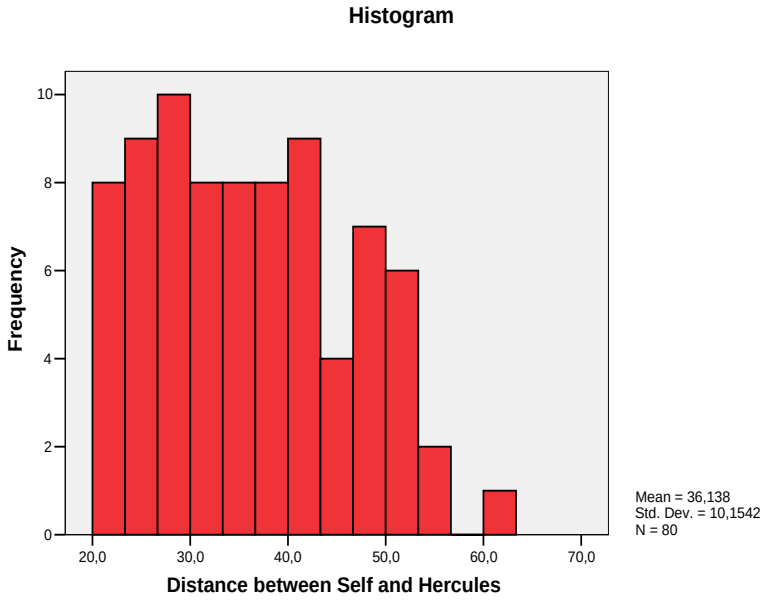
The following point needs additional attention:

(1) Define IDENTIFICATION in terms of DIST_SH. A lower distance to Hercules corresponds conceptually to a higher degree of psychological identification with the Hercules figure. So a new variable named IDENTIFICATION is created as the inversely recoded form of DIST_SH. The reason for this is that higher numerical values should correspond to more identification.

(2) Show distribution of IDENTIFICATION within the experimental group (N = 40). Is IDENTIFICATION normally distributed? Check with Kolmogorov-Smirnov-Test.

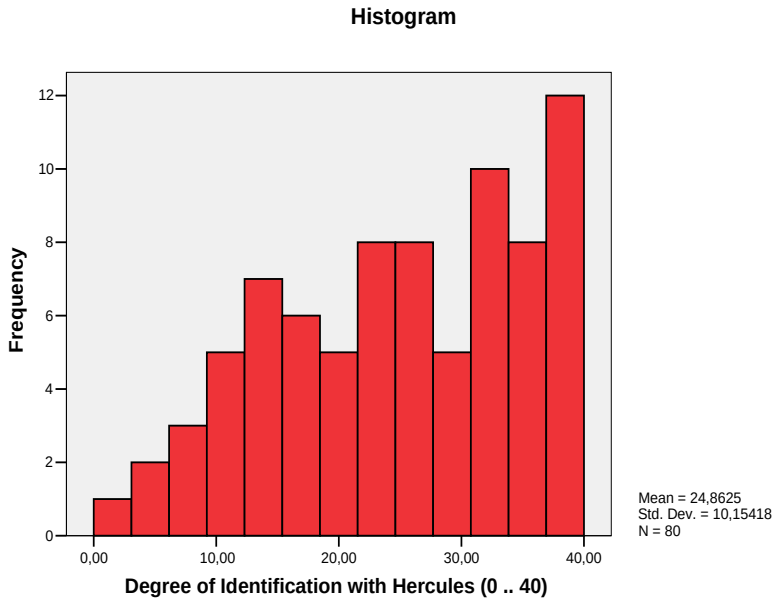
(3) Fit model in accordance with hypothesis 5 and estimate parameters.

Step 1: Define IDENTIFICATION in terms of DIST_SH. A lower distance to Hercules corresponds conceptually to a higher degree of psychological identification with the Hercules figure. So a new variable named IDENTIFICATION is created as the inversely recoded form of DIST_SH. The reason for this is that higher numerical values should correspond to more identification.



Before:

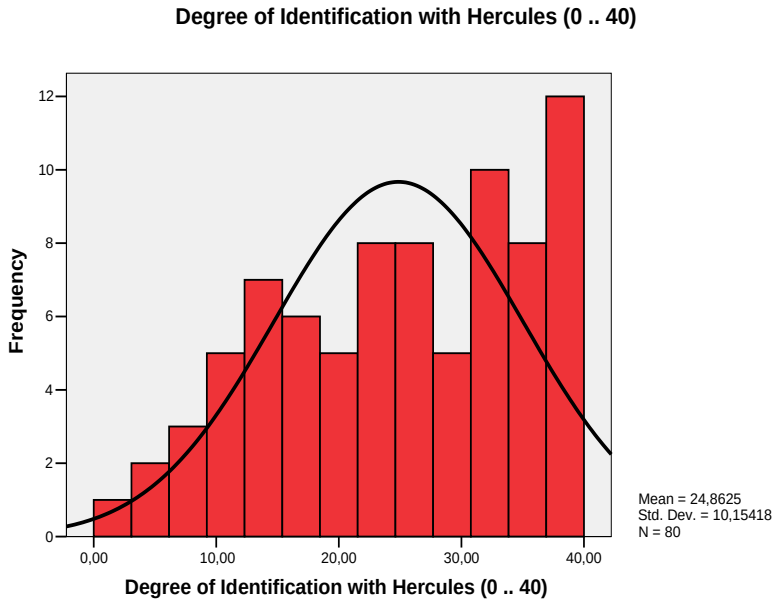
Distance between
Self and Hercules



After:

Identification with Hercules

Step 2: Show distribution of IDENTIFICATION within the experimental group (N = 40). Is IDENTIFICATION normally distributed? Check with Kolmogorov-Smirnov-Test.



One-Sample Kolmogorov-Smirnov Test

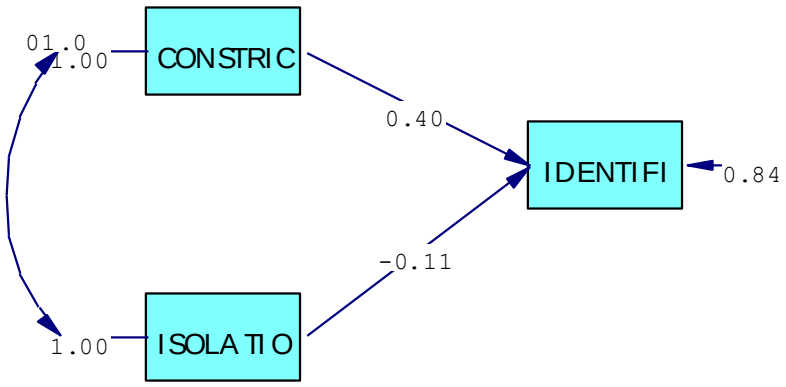
		identification Degree of Identification with Hercules (0 .. 40)
N		80
Normal Parameters[a,b]	Mean	24,8625
	Std. Deviation	10,15418
Most Extreme Differences	Absolute	,102
	Positive	,068
	Negative	-,102
Kolmogorov-Smirnov Z		,914
Asymp. Sig. (2-tailed)		,373

a. Test distribution is Normal.

b. Calculated from data.

With p = 37,3 % there is no significant deviation between IDENTIFICATION and the corresponding normal distribution. Thus IDENTIFICATION can be regarded as being normally distributed.

Step 3: Fit model in accordance with hypothesis 5 and estimate parameters.



Chi-Square=0.00, df=0, P-value=1.00000, RMSEA=0.000

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,404[a]	,163	,118	9,24103

a. Predictors: (Constant), isolation Degree of Isolation (0 .. 6), constriction Degree of Constriction (0 .. 1)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18,564	8,579		2,164	,037
	constriction Degree of Constriction (0 .. 1)	56,870	21,462	,401	2,650	,012
	isolation Degree of Isolation (0 .. 6)	-1,278	1,750	-,110	-,730	,470

a. Dependent Variable: identification Degree of Identification with Hercules (0 .. 40)

The multiple linear regression analysis shows that it is possible to fit a model according to hypothesis 5 to the data of the experimental group – but the path from ISOLATION to IDENTIFICATION is not significant!

The following analysis of correlation shows that the influence of CONSTRICTION accounts for about 15% (= r squared = 0,389 * 0,389) of the variance of IDENTIFICATION. As this is only a relatively small amount this influence must be considered as week.

Correlations

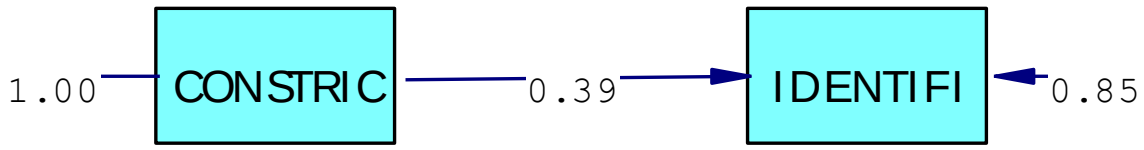
		identification Degree of Identification with Hercules (0 .. 40)
constriction Degree of Constriction (0 .. 1)	Pearson Correlation	,389
	Sig. (2-tailed)	,013
	N	40
isolation Degree of Isolation (0 .. 6)	Pearson Correlation	-,069
	Sig. (2-tailed)	,674
	N	40

Result: Hypothesis 5

Hypothesis 5 is only partially supported by the data of the experimental group.

There is a positive influence from CONSTRICTION on IDENTIFICATION,

but there is no influence from ISOLATION on IDENTIFICATION.



CHAPTER FOUR: SUMMARY AND DISCUSSION

It was the goal of this study to support the development of a comprehensive treatment modality for violent adolescent males who have suffered attachment trauma by examining the subjective experience of these individuals. Literature suggests (Gabarino, 1999; James, 1994; Pollack, 1998) that the complex of high levels of anger and hostility combined with having suffered an attachment trauma could be a cause for violence of adolescent males. This study analyzed mainly the relationship between the presence of this complex and the subjective experiences of *constriction, psychological isolation* and *identification* with the Hercules figure, and then the relationships between constriction and isolation and constriction and identification…that is, does constriction and isolation cause identification.

Constriction

The results indicate that there is greater constriction on the part of angry/hostile, attachment trauma males. This is important in terms of considering their struggles with anger. Kelly (1991a; 1991b) claimed that the degree of constriction of one's construct system is correlative to hostility because it creates threat. Simply speaking, the more constricted a degree to which one organizes one's constructs, the less freedom there exists for one to be flexible in dealing with various situations. This then creates threat when the individual is presented with a situation that doesn't fit within his or her construct system. This can then lead to hostility.

This is, of course, very important in terms of working with these males. If we know that hostility may result from the threats presented by stimuli or challenges outside of their construct systems, then work can be done to expand their construct systems—in

common therapeutic terms, to work with them to expand their comfort zones, so that they are able to manage a wider range of challenges without resorting to violence.

Psychological Isolation

The results also indicate that there is greater isolation on the part of angry/violent, attachment trauma males. Psychological isolation relates to Kelly's (1991a; 1991b) concept of guilt. He believed that individuals experience guilt with the loss of the core role. The core role is the basic, fundamental role with which one identifies one's own existence: "One's deepest understanding of being maintained as a social being is one's concept of one's core role. Perceptions of one's apparent dislodgement from one's core role structure constitutes the experience of guilt" (Kelly, 1955a, p. 370). Basically, guilt then leads to self-isolation due to one's not having a basic sense of how to organize oneself in a social relationship: "Guilt is a psychological exile from one's core role, regardless of where when, with who, or in what scenes the part has been played" (Kelly, 1955a, p. 372). In the case of the subjects of this study, attachment trauma creates in the individual a desire to get back to the original relationship—the original core role structure—that was there before the loss of attachment. The desire is driven by guilt. The problem is that the individual tries at the same time to keep up the position of being the juvenile delinquent, the rebel, the troublemaker, etc., because that is the pseudo-identity, or new core role structure, that has replaced the healthy attachment bond. By continuing to act out, the person at least has some identity and therefore avoids the greater guilt that would result if he or she were also to lose this core role. While maintaining this role, they secretly, unconsciously long for the earlier attachment core role of the cared-for/loved child. They strive to get what they feel they didn't get as a

child, or what they once had but lost. This situation is a paradox. The individual is in a double-bind. They are caught in this circle of guilt and isolation.

The results of the study are important because they indicate the importance on the part of those working with these individuals to address the underlying guilt and longing for attachment that these males are experiencing.

Identification with the Hercules Figure

The results also indicate that angry/hostile males who have suffered attachment trauma identify more with the Hercules figure than those of the other group. This could indicate that those working with such individuals could use the story to connect with them. Essentially, by sharing the story with such clients, therapists could demonstrate that they understand these males. This feeling of being understood on the part of the clients could then be a basis for the building of a strong therapeutic relationship. Further, the story may also be used as a model for change, as the therapist relates that courage, discipline and self-sacrifice are all necessary for successful rehabilitation, as Hercules demonstrates in the story. One of the distinguishing features of this population of subjects is that they are suspicious and untrusting. Due to the events relating to their having suffered attachment trauma and the subsequent self and world construct system developed out of these experiences, they are often perpetually on guard to protect themselves from suffering. This, in turn, makes it very difficult to work with them in a clinical setting. Trust being necessary for the development of any quality psychotherapeutic relationship, it is clear why working with these clients poses an increased challenge from the outset. It is with this difficulty in mind that the idea of using the Hercules myth finds its relevance. If attachment trauma males identify with the

Hercules myth in terms of assigning the character an important place in their personal construct system, then this may open the door to building trust with them and maintaining that trust throughout the therapeutic relationship. Simply put, by having their difficulties with anger, hostility and relationships put in the context of a perennial struggle exemplified in one of the most popular male myths of western civilization, then they may in turn feel that an effort is being made to understand them rather than to label them. This, then would theoretically translate to their trusting the therapist more, thereby opening the door to constructive therapeutic work.

Constriction and Isolation in Relationship to Identification

Of further importance in considering the use of the story, however**,** are the results of hypotheses 4 and 5. The outcomes indicate that constriction and identification are related but not isolation and identification. Therefore, the issue of constriction and the tendency for these individuals to identify with Hercules may be more useful in connecting these males to the story, and through it to the therapist. Further, there may be other elements of the Hercules story that lead to connection with it on the part of these males that weren't under study here.

Factors Which Might Have Effected the Study

Are the Samples Representative Random Samples?

Because of the minimal number of subjects available for this study, no attempt was made to match criteria by which the target population is characterized and that of the subjects in the study (i.e. age, social background, education, religion, region). Further, for the same reason, no randomization procedure was used. So, the degree to which outside influences may be present is unknown**.** Further, because the age of the subjects

was between 18-25 years, the results may not be applicable to adolescents who are younger.

Observations May not be Independent from One Another

Because members of both groups interacted with one another, there may be an influence between peer-groups.

Critical Remarks Concerning Experimental and Control Group

Both groups were treated the same way. There was no special treatment administered to the experimental group. So, there was no experiment in the usual sense.

The real experiment of this study was: Tell the same story to two differently defined groups and then measure and compare the degree of identification of group members with the main figure of the story (Hypothesis 3). So it would be better not to talk of "experimental and control group" but to talk of say "group 1 and group 2" or *anger/hostility/attachment-trauma group* and *non-violent group*.

Critical Remarks Concerning the Definition of Constructs

Constructs were defined after collecting the data. It could be argued, that measurement instruments should be defined (and tested for reliability) prior to collecting the data.

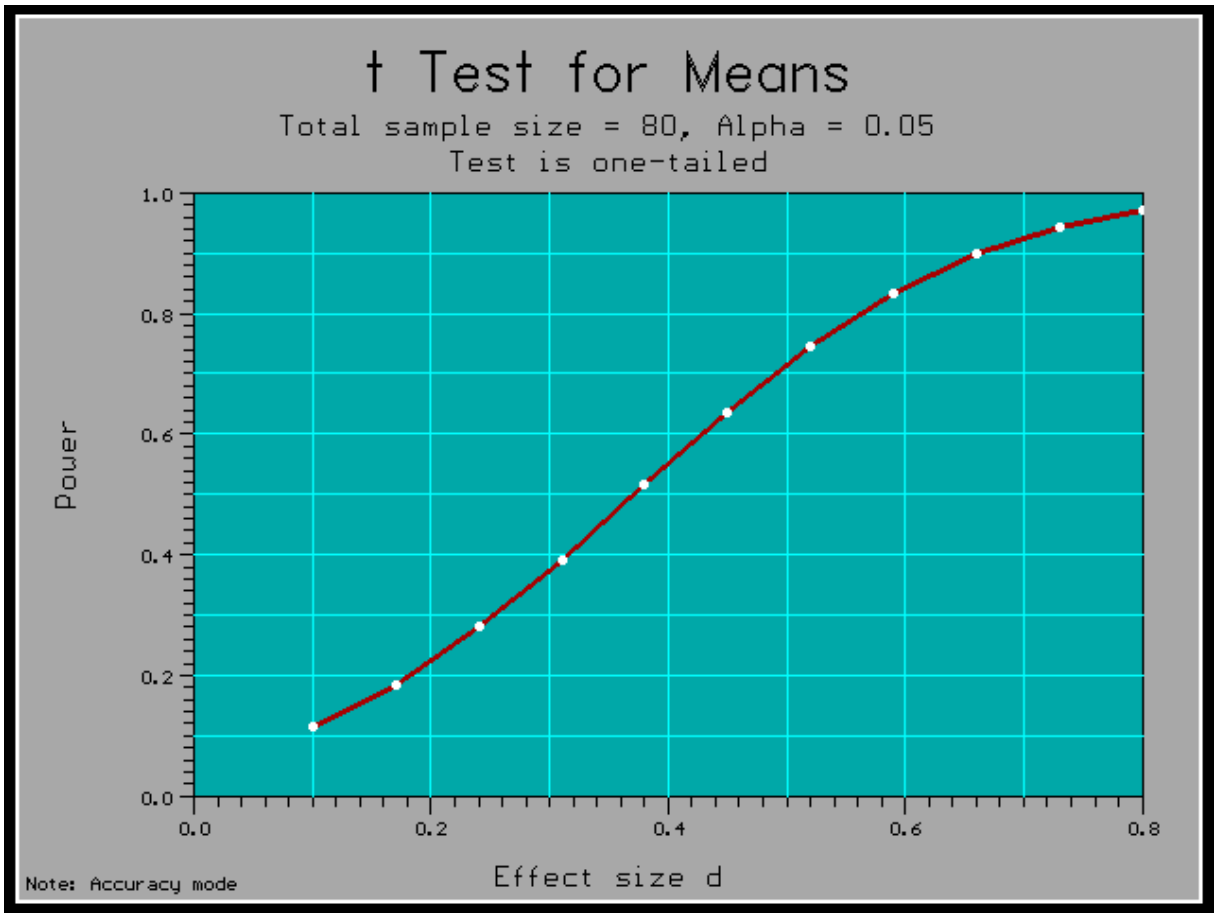
However, the real measurement instrument is the Kelly Grid--and this has been approved in other studies. The constructs used in this study can then be considered as secondary measures. It is preferable even in studies involving the repertory grid,

however, to test constructs for reliability through a pilot study. One can also retest the same subjects. Neither of these options were possible in this situation, given the lack of subjects available.

Power-Considerations (post hoc)

What kind of differences ("effects") (small? medium? large?) can be detected with two samples of size 40 each, alpha=5%, beta=80% and one-sided hypotheses?

The following graph depicts the relationship between effect size and power:



We see:
The probability of detecting effects of small size (0.2) is 22,4 %.
The probability of detecting effects of medium size (0.5) is 71,6 %.
The probability of detecting effects of large size (0.8) is 97,1 %.

Conventions for effect size according to Cohen (1988):
Statistical Power Analysis, Lawrence Erlbaum Associates, New Jersey.

Result: While it is unlikely for this study to find small existing effects, this study is well suited to detect effects of medium or large size.

To reliably detect small differences 310 persons per group were needed.

Possible Enhancements for Future Studies

Recommendations for Testing the Hypotheses of this Study

Considering the above factors, the following measures should be taken to improve future studies of this kind:

- The target population should be defined more precisely. Important characteristics should be identified in advance. Sampling should be organized so that the sample is a representative picture of the target population.
- A randomization procedure should be established, so that unknown factors are accounted for.
- A larger sample should be analyzed, so that small differences between groups could be detected, too.
- Constructs from the Kelly Grid should be tested for reliability prior to use in the study. Alternatively the Kelly Grid could be administered repeatedly to the same persons to see whether results remain stable

Future Studies Involving Treatment Methods Using the Hercules Story

Ideally, the correlation between the Hercules story and violent adolescent males would best be used in a therapy situation. Therefore, it is important that future studies investigate the scientific viability of this type of intervention. Due to the limitations faced by this researcher in terms of both availability of subjects and the time for which they were available, no such study was possible. However, in the event that future researchers may wish to attempt such a study, it may be useful here to provide some concrete examples of this researcher's use of the Hercules story with young males in psychotherapy. Further, it is the belief of this researcher that one effective system for

treating violent adolescent males—Multi-Systemic Therapy (MST)--may be particularly relevant and suitable for use with the Hercules story. Therefore, a short discussion of both clinical cases and how the Hercules story can then be used within MST is provided.

Clinical case examples of using the Hercules story with violent males

Prior to, during and following the conducting of this study, this researcher had numerous opportunities to use the Hercules story in working with violent males in various counselling/psychotherapy settings. This included in an outpatient psychiatric clinic, an outpatient drug and alcohol treatment facility, and in private practice as a vocational rehabilitation counsellor for the veteran's administration.

One individual was approximately 20 years old and was being considered for early discharge for the Army. This was due to many episodes of aggressive behavior toward his supervisors and fellow soldiers. While he was never physically violent with any of these individuals, he underwent frequent episodes where he would explode verbally and disrespectfully. This would usually happen when he was feeling belittled or criticized. After some rapport had been established, the patient admitted to having this problem since early adolescence, and that he had been in trouble with teachers and other school officials and people of authority. In addition, his relationships with women were also chronically affected by this issue. Further, although he denied ever being physically violent during these outbursts, he admitted that he often felt the impulse to be so, and that he was afraid that someday he might indeed become physically violent. He also reported that this behavior would simply "happen," and that he felt he had no control over it.

In terms of his history as it is relevant to this discussion, the patient was given up for adoption at a very young age, around 4 or 5. He was severely neglected and both emotionally and physically abused by his adoptive mother and father up until the age of 16, when he left the home. He was able to find his natural father and began to develop a relationship with him, although it had never become close. The patient described their relationship more as being "acquaintances" than as a father-son bond. He never found his natural mother. He also described never really feeling like he fit the role of a typical boy growing up, not being proficient at sports and also feeling uncomfortable with girls. He described himself as an outsider. He had no history of serious psychiatric illness, drug or alcohol problems or severe problems with the law. He was, however, continually in conflict with teachers and other adults, and would regularly miss school. He never graduated high school, and instead earned a G.E.D and then joined the U.S. Army when he turned 18.

The use of the Hercules story proved useful with this patient in two ways: 1) in building rapport, and 2) in helping him understand and accept his pathology in order to have more control over it. In regards to the former process, after we had met several sessions and a thorough assessment had been done, I compared his difficulties with that of Hercules' problem in controlling his temper. When it was clear that he was interested in this theme, then I went through the story with him and explained some of the specifics regarding the Hercules having murdered his own wife and children, and then having to do "penance" by using his energy to serve. The introducing of the Hercules story into the therapy process took place very spontaneously when I began associating to it as he was beginning to demonstrate a growing anger immediately in the session while he described

a recent altercation with his supervisor. That is, the potential for him to burst out was very apparent in the session in both his tone of voice and facial expressions. Thinking about the Hercules story seemed to give him an objectively with which to consider his own behavior, while at the same time not labelling it with a formal diagnosis that might be for him obscure or belittling.

It is important to say at this point that I have done this with other patients in a similar manner, and that the connection did not seem to be there. That is, the patient himself did not "feel" the connection. In these cases, we simply moved on. In this situation, though, understanding his own behavior in comparison to that of Hercules seemed to give the patient a foundation from which to work. We would return to this connection then repeatedly in the therapy as it was appropriate. After the session during which he identified with Hercules, the patient went to the extent of researching the story in more depth for himself. This last fact correlates to a very important aspect of this intervention: the patient actually went and "studied," so to speak, his own pathology. Because his behavior could be put in the context of this story, it seemed to be more permissible to his ego to accept it and seek to understand it further. It is my belief, and a key aspect of my wanting to undertake this theme and this research, that this would not have been the case if I would have instead explained to him a psychiatric diagnosis that would account for his difficulties.

Applying the Hercules story to Multi-Systemic Therapy with violent adolescent males

Growing evidence suggests that the treatment of violent and delinquent adolescents must address a multitude of ecological factors (Chamberlain et al. 1998; Gorman-Smith & Tolan, 1996; Gorman-Smith et al., 1996; Henggeler, et al., 1997; Henggeler, Melton & Smith, 1992; Huey et al, 2000; Lytton, 1990). The treatment method associated with this theory is multisystemic therapy (MST), and is based on Bronfenbrenner's (1979) theory of social ecology, which characterizes human development as systemic, involving a constant interchange between the individuals and interconnected systems. These systems include those already discussed under socialization (parenting, family processes, and the boy code of the American culture), but also includes, but is not limited to, academic issues (such as performance), socio-economic status, co-cultural group affiliation (African-American, Hispanic-American, Asian-American, etc.), gender, and sexual orientation.

Basically, the approach of MST is to assess each system at work in the life of the individual, and target interventions according to the nature of the systemic interplay between the individual and each component of each system (Chamberlain et al. 1998; Gorman-Smith & Tolan, 1996; Gorman-Smith et al., 1996; Henggeler, et al., 1997; Henggeler, Melton & Smith, 1992; Huey et al, 2000; Lytton). The method is highly individualized and takes as its paramount concern the specific needs of each client. Interventions may include parent training; work with family process; evaluation of peer group affiliation along with encouragement to avoid relationships with delinquent or troubled peers; help with academic issues; processing of feelings about socio-economic

status, cultural background, gender or sexual orientation. Often treatment takes place in the setting in which the client lives: at home, school, etc. The protocol is highly structured following nine treatment principles, and is usually carried out under the weekly supervision of a MST expert. The validity of the theoretical model is buttressed by the continual effectiveness of a number of MST studies (Chamberlain et al. 1998; Gorman-Smith & Tolan, 1996; Gorman-Smith et al., 1996; Henggeler, et al., 1997; Henggeler, Melton & Smith, 1992; Huey et al, 2000; Lytton).

One possible disadvantage to MST, however, is the difficulty and cost of carrying it out (Henggeler, et al, 1997). Such a comprehensive intervention takes a significant amount of logistical and monetary resources. Further, because the treatment protocol is so specialized, disseminating MST to a large application base is difficult. Community agencies simply do not have the resources to provide weekly supervision by an MST expert for each treatment team. Henggeler, et al, (1997) tested MST without this requirement in order to assess the possibility of better disseminating it to a wider range of agencies, and found it significantly less effective than previous studies that included weekly supervision. Still, the effectiveness of this method is clear, and with more resources to fund this kind of intervention, significant progress may be made in reducing youth violence.

The usefulness of using the Hercules story within this treatment process is clear. Because the MST approach involves a team of intervention specialists, it is vital that they all have some common construct from which to work as they apply their individual expertise to the individual needing intervention. Conceptualizing the cognitive, affective and behavioral pathology of the individual within the context of the Hercules myth as it is

described in this study provides this grounding construct. Specifically, as a symbol, it accomplishes two tasks for the different intervention professionals: 1) it helps them understand the pathology of the individual in a broader sense than simply a psychiatric diagnosis; and 2) it provides for a unifying understanding of the progression of therapy as has been described earlier here.

Final Remarks Regarding the Hercules Story

In my opinion, when dealing with something as serious as violence among males, no idea or theory is helpful unless it is practically useful. It is my contention that putting the behavior of these males in the context of the Hercules myth is very useful. Firstly, it provides for a way to connect to them. Pollack (1998) states that one of the ways to connect with males is through stories—particularly stories of adventure. Ideally, we use stories in which the male can see aspects of himself or his experience, and then this connection can be used to facilitate change. As has been demonstrated above, this can be done with the Hercules myth. Hercules is an attractive character to males: the popularity of the T.V. show carrying his name is testament to this. However, the original myth, unlike the popularized one, provides an example for violent males to see how to change their lives. They must come to terms, like Hercules, with their demons, do penance for the wrongs they have done, integrate the Theseus aspects of being into their character (compassion and rationality), and they must be willing to die to the old way of living in order to give themselves the gift of a new birth. The Herculean void that they suffer from due to both the rejection they have endured and the boy code messages they have

received from society, will only be filled by a commitment to both *accept* themselves as deserving a new start, and *expect* themselves to take responsibility for their lives.

The catharsis that Hercules goes through in transforming fear and desire into compassion and humility is a model for the subjects under study here to do the same with threat and guilt as they are defined by Kelley. Specifically, just as Hercules transforms fear into compassion through both 1) increasing his ability to engage in challenging situations without acting in fits of rage; and 2) learning to understand that others suffer just as he does, some due to his behavior, then the subjects under study here can 1) learn to decrease threat through decreasing constriction by expanding their comfort zones through concrete behavioral tasks; and 2) learn to understand that they share suffering with all of humankind and that they in fact have been responsible for suffering, this too leading to an increase in compassion for others and so in a decrease in threat and the potential for hostile behavior. Secondly, just as Hercules models transforming desire into humility (through realizing that his heroic exploits taken to extreme have led to the death of his own family), these males can learn that the guilt cycle—the continual striving to regain the original core role structure of the maternal relationship—will only lead to destruction. They must choose to mourn their losses resulting from attachment trauma rather than perpetually trying to get from their current relationships what they did not get from their early caregivers. Humility can be fostered in the same manner as compassion—through realizing that they are not the only ones in the world who suffer greatly, and that in fact they are partly responsible for their current suffering due to their choices. This does not mean that they are responsible for any of the things that have happened to them as children, but that they are indeed responsible for what they choose

to do with those experiences—in Otto Rank´s terms, the life they choose to create out of that suffering.

Further, by seeing their behavior as a story--a story that is as ancient as western civilization itself—those who work with violent males can approach them with more patience and understanding. Rather than applying labels, we work to bring the hero aspects of themselves to fruition. By sharing the Hercules story with them, we silently imply that they are heroes for having survived the intense pain of being rejected by life itself. We then provide them with the acceptance and attachment they need to be reborn into a new life, giving themselves the gift of acceptance and reconciliation they are so hungry for.

Perhaps most important, showing them that we are trying to understand rather than label, they will feel deserving of friendship. As my mentor—who was a prison psychologist for ten years--once told a class: "It always made me sad that some of those inmates in prison didn't think they had a right to get better" (Fittante, 1995). In showing these males they have a right, we might take the following exchange between Hercules (Heracles) and Theseus as our guide:

"Theseus: Give me your hand; I'll hold you.

Heracles: No! Take care; my touch on your clothes means pollution.

Theseus: Then wipe off on me all your uncleanness, all; I do not shrink from it" (Vellacott, 1963).

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APPENDICES

Appendix A

ROLE TITLES

ROLE TITLES

1. Your first name.

2. Your mother´s first name (or the person who has played the part of a mother in your life).

3. Your father´s first name (or the person who has played the part of a father in your life).

4. Your brother´s first name nearest your age (or the person who has been most like a brother).

5. Your sister´s first name nearest your age (or the person who has been most like a sister).

6. A person whom you would enjoy having as a companion on a trip.

7. A person whom you would not like to have as a companion on a trip.

8. A teacher or boss you liked (or the teacher of a subject you liked or the boss of a job you liked).

9. A teacher or boss you disliked (or a teacher of a subject you disliked or the boss of a job you disliked).

10. An old or present girlfriend or spouse.

11. A person with whom you have worked who was easy to get along with.

12. A person with whom you have worked who was hard to understand.

13. The most intelligent individual you know personally.

14. The most successful individual you know personally.

15. The most interesting individuals you know personally.

16. The Hercules figure.