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PSYCHODYNAMIC CORRELATES OF DEPRESSION: HOSTILITY AND ORALITY

By

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ABSTRACT

PSYCHODYNAMIC CORRELATES OF DEPRESSION:
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This study examined the relationship between hostility, orality, and depression. Based on selected themes in early psychoanalytic writings on depression (e.g. Freud, Abraham, Rado), it was expected that depressed patients would exhibit more orality and hostility directed against the self than non-depressed patients. Thirty (15 male, 15 female) psychotherapy clients seen at the Michigan State University Psychological Clinic were assessed using a symptom checklist (SCL-90-R). Transcripts taken from the first and third psychotherapy sessions were scored for orality and hostility using scales developed by Masling and Gottschalk-Gleser, respectively. Results demonstrated a corrected correlation of .24 for depression scores and inward-hostility ($-.06 \leq p \leq .54$). The hypothesis concerning depression and orality was not supported ($r = -.10$), and regression analysis corroborated the importance of inward hostility, but not orality, on depression scores. Examination of gender differences revealed that women scored significantly higher on the oral measure as well as on inward-hostility. Furthermore, the relationship between depression and inward-hostility was much stronger for men than women, as was the relationship between covert hostility and depression. Results are interpreted as corroborating the importance of hostility (both inward and outward) in depression, as well as the effect of gender on these relationships. Discussion also addressed the high variability (over time) of the scales, as well as their specific use in this context and with this sample.

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INTRODUCTION

Depression is somewhat of a paradox in the history of psychiatry and psychology. It has been recognized for over 2,000 years, but has to this day left clinicians and researchers puzzled regarding its nature, classification, etiology, and treatment. Furthermore, it remains one of the most powerful experiences of the human condition. As Burton (1927) wrote, depression constituted the:

> ...cream of human adversity, the quintessence, the upshot; all other diseases are but flea-bitings.... They are in great pain and horror of mind, distraction of soul, restless, full of continual fears, cares, torments, anxieties, they can neither eat, drink, nor sleep for them, take no rest, neither at bed nor yet at board, will any rest despair afford (cited in Anthony & Benedek, 1975, p. 545).

Possibly the first reference to depression occurs in the Old Testament, in which King Saul (during 1033 B.C.) described recurring symptoms of depression including suicidal ideation. The systematic scientific inquiry into depression begins with Hippocrates (around 400 B.C.), who believed that melancholia was caused by an excess of black bile, often the result of long-standing distressful situations. Since this early hypothesis theorists from widely diverse backgrounds have attempted to understand the phenomenon of depression, most with only limited success (see Georgotas & Cancro [1988] for a discussion of the evolution of the scientific inquiry into depression and mania).

Currently depression is the most common diagnosis in outpatients and hospitalized psychiatric patients, and it also affects a large number of untreated individuals (López-Ibor Jr., 1991). Recent epidemiological studies suggest a lifetime prevalence rate for major depression in the United States of 4.4 per 100 (Weissman, Leaf, Tischler, Blazer, Karno, Bruce, & Florio, 1988).

The cost of this disorder in terms of mental anguish, medical expenses, and even human life (depression is often a factor in suicide) behooves us to further our understanding of this condition in order to improve treatment and prevention.

Depression, due to its multifaceted nature, has been approached from a number of theoretical standpoints. The present literature review will concentrate primarily on psychoanalytic and psychodynamic viewpoints; research dealing with cognitive, interpersonal, and biological aspects of depression will not be examined. Recently, some authors have made attempts to pool data from these various areas in order to propose a truly encompassing theory of depression (See Basch, 1975; Akiskal & McKinney, 1975, for examples of work towards this end).

Many of the early psychoanalytic contributions to the depression literature continue to stand as models of clinical insight and description for dynamically oriented theorists. This is in part due to the method of investigation-- the case study-- which allows one to gather large amounts of data on single cases. This method is obviously not without significant drawbacks, however, and leads to problems due to observer bias, lack of control group, etc. Thus there are few empirical studies that have attempted to examine these early (and still prevalent) ideas about the dynamics underlying depression.

The proposed study will attempt to isolate a few of the key variables thought by many psychoanalytic theorists to be crucial in the etiology and maintenance of depression. Drawing mostly from early psychoanalytic theory (Abraham, Freud & Rado), the two variables involved in this study will be inwardly-directed hostility and orality. Before further discussing the proposed study, a brief examination of the theory to be studied is in order.

The Psychoanalytic Theory of Depression

The title of this section is somewhat of a misnomer, as there really is no one "psychoanalytic theory of depression." There have been, however, certain themes that have run through many of the major theories within the

psychoanalytic school, and this section will examine some of the main contributors and theoretical positions.

The psychoanalytic literature on depression begins with a paper by Karl Abraham published in 1911 (1927), in which he discusses six cases of psychotic depression which he had treated. He begins this paper with an explanation of the difference between depression and normal sadness:

> One of the earliest results of Freud's investigations of the neuroses was the discovery that neurotic anxiety originated from sexual repression; and this origin served to differentiate it from ordinary fear. In the same way we can distinguish between the affect of sadness or grief and neurotic depression, the latter being unconsciously motivated and a consequence of repression (p. 137).

Abraham believed that ambivalence was the main reason for this repression, in that alongside the love for the lost object the depressive also felt intense hate[1] (Abraham notes the similarity here with obsessive patients). The patient cannot acknowledge this hostility (especially since they need the object so greatly) and it is therefore subject to strict repression.

Abraham believed that aside from repressing this hatred, depressive patients will project it onto others, therefore leading to the belief that others hate them. Furthermore, he speculated that this repression often leads to guilt, self-reproaches, etc. Finally, he also noted that their excessive self-reproaches are of a narcissistic quality.

His second contribution emerged in 1916 (1927), and set out to understand depression in light of Freud's new work on the development of the libido, found in the third edition of the Three Essays on the Theory of Sexuality (1949, first published in 1915). In this paper Abraham focuses on the first pregenital stage of the libido, and gives some case examples to show that the "instinctual life of the infant persists in some adults in a positive and unmistakable fashion..." (p. 253). Throughout this paper he gives examples

[1] It should be noted here that later theorists (see Freedman, 1986) believe that it is unconscious ambivalence which is prevalent in depression, and that in fact the conscious experience of ambivalence is a sign of clinical improvement.

from both psychopathology and everyday behavior of the lasting effect of these earlier stages, especially the oral stage. Of interest here is his attention to the vicissitudes of libido in regards to depression, in which he believed the libido is regressed to the oral or cannibalistic stage of development:

> In melancholic states of depression the libido seems to regress to the earliest stage of development known to us. That is to say, in his unconscious the melancholic depressed person directs upon his sexual object the wish to incorporate it. In the depth of his unconscious there is a tendency to devour and demolish his object (p. 276).

He believes that this regression accounts for two similar symptoms in many depressives-- the refusal to eat and the fear of dying of starvation. Both of these are related to the unconscious wish to incorporate orally his/her object. In effect, not eating is the only way to avoid carrying out their cannibalistic urges.

One can see in these two early papers, therefore, a developing theory which stresses the importance of hostility and orality in depression. However, Abraham did not believe that these were necessarily to be considered universal dynamics: "I have attempted only to explain the wish-content of certain depressive delusional ideas and the unconscious strivings that underlie certain characteristics in the conduct of the melancholic and not the causes of melancholic depression in general" (p. 278).

His third contribution to the literature on depression appeared in 1924 (1927). It should be noted that this paper was published after Freud's own work on the subject, soon to be discussed. In this extensive paper Abraham set out to investigate the stages of libidinal development as they relate to mental illness. Here again Abraham begins by noting the similarity between the melancholic and the obsessive patient:

> ...what is especially interesting to the analyst is the fact that in all cycloid illnesses the patient is found to have an abnormal character-formation during his 'free interval'; and that this character-formation coincides in a quite

> unmistakable way with that of the obsessional neurotic (p. 423).

Aside from the oral attributes, he noticed the anal character traits that were associated with these two positions. In order to differentiate the two disorders, however, Abraham proposed a subphase within the anal stage. These two stages are labeled a "primitive stage" and a "later stage." In the primitive stage the goal is control of the object (as with the obsessive), and in the later stage the goal is to expel it. This "anal expulsion" is what he often found in the fantasies of depressives. Abraham further believed that once the libido has crossed this "line" between the two subphases it will continue to regress to earlier stages. This may be in part due to the fact that after the loss of the internalized love object (due to expulsion) the depressive is left feeling empty. As Freud (1917) suggested, the depressive therefore tries to gain back the object through oral incorporation. Abraham cites the frequency of the fantasy of eating one's own feces as evidence of this wish to incorporate the anally expelled object. Although he believes that introjection is also a part of normal mourning, he points out the significant differences in depression:

> Nevertheless, although introjection occurs in mourning in the healthy person and in the neurotic no less than in the melancholic, we must not overlook the important differences between the process in the one and in the other. In the normal person it is set in motion by real loss (death); and its main purpose is to preserve the person's relations to the dead object, or- what comes to the same thing- to compensate for this loss. Furthermore, his conscious knowledge of his loss will never leave the normal person, as it does the melancholiac. The process of introjection in the melancholic, moreover, is based on a radical disturbance of his libidinal relations to his object. It rests on a severe conflict of ambivalent feelings, from which he can only escape by turning against himself the hostility he originally felt towards his object (p. 438)

(this idea of hostility turned against the self will be more fully discussed in

relation to Freud's understanding of melancholia).

Just as Abraham differentiated two phases in the anal stage, he goes on to do this with the oral stage, again noting the importance of the oral phase of development in depression. The earlier phase is described as the oral-incorporative phase, and corresponds with sucking in the infant. The later phase is the oral-sadistic, and corresponds to biting. It is in this later stage that ambivalence towards the object begins to become important. Throughout this paper Abraham gives many clinical examples from his patients of fantasies, symptoms, etc. which revolved around the mouth and the theme of eating, all of which he took as evidence of the regression to the oral sadistic phase. Abraham further summarizes this process by using an interesting metaphor: "We may truly say that during the course of an attack of melancholia the love-object goes through a process of psychological metabolism within the patient" (p. 464). Interestingly, this metaphor is still alive today-- when one is confronted with a difficult or painful situation one will often say that they have "trouble digesting it."

With this theoretical discussion of the developmental aspects of the libido as a back-drop, Abraham posited several etiological factors in manic-depression. These are: 1) A constitutional factor [possibly an over-accentuation of oral eroticism]; 2) A fixation of the libido at the oral level; 3) Injury to infantile narcissism due to successive disappointments in love [especially before the Oedipal wishes have been overcome]; 4) The repetition of this primary disappointment in later life. As Robertson (1979a) noted, the third factor listed here is what is primarily responsible for the ambivalence which is felt about the object (and subsequent love objects).

In summary, Abraham noted, as did Freud, the importance of the perceived loss of a loved object. He summarizes as follows:

> When melancholic persons suffer an unbearable disappointment from their love-object they tend to expel that object as though it were feces and to destroy it. They thereupon accomplish the act of introjecting and devouring it- an act which is a specifically melancholic

> form of narcissistic identification. Their sadistic thirst for vengeance now finds its satisfaction in tormenting the ego...(pp. 463-464).

Although Abraham was the first psychoanalytic theorist to write on depression, it was his mentor, Sigmund Freud, who is still most influential in this area. Freud's "Morning and Melancholia,"[2] published in 1917 (1957), is still regarded as pivotal in the history of psychoanalysis. In part its significance lies in its relation to Freud's earlier writings and his overall metapsychological theory, rather than its exploration of depression. For it was in this paper that Freud first introduced the idea of a form of psychopathology that was not fundamentally due to the vicissitudes of libido. Furthermore, this paper emphasizes object-relations (Arieti & Bemporad, 1978). In this paper one can also catch early glimpses of the psychic agency that would become the superego in The Ego and the Id (1961, first published in 1923). This agency was introduced in a paper written the year before entitled "On Narcissism, an introduction" (1949, first published in 1914) as the Ego Ideal.

Freud begins Morning and Melancholia[3] with a warning to prospective readers about the generalizations that can be drawn from this work. Freud recognized that the definition of Melancholia fluctuates and takes various forms which may not be a single identity. He also acknowledged that his material was based on a small number of cases, and should therefore not necessarily be taken as universal.

He begins his exposition into depression by noting the similarities between melancholia and morning. He also, however, notes one importance difference:

> The distinguishing mental features of melancholia are a profoundly painful dejection, cessation of interest in the

[2] Freud did write on depression before this paper, but this work was never published and Freud later abandoned many of these early ideas (Bemporad, 1988). Interestingly, Freud first believed that major depression resulted from an abnormal sexual life, while periodic depression resulted from coitus interruptus (see Deitz, 1989).

[3] For further discussion of the precursors to this paper, see Strachey's comments in the Standard Edition of the Complete Psychological Works of Sigmund Freud, Vol. 14, pp. 239-242.

> outside world, loss of capacity to love, inhibition of all activity, and a lowering of the self-regarding feelings to a degree that finds utterance in self-reproaches and self-revilings, and culminates in a delusional expectation of punishment. This picture becomes a little more intelligible when we consider that, with one exception, the same traits are met with in mourning. The disturbance of self-regard is absent in mourning... (p. 244).

This difference was succinctly summed by Freud when he stated that "in mourning it is the world which has become poor and empty; in melancholia it is the ego itself" (p. 246).

Freud further noted that both mourning and melancholia can result from the loss of a loved object. However, here again there is a significant difference in that in melancholia the object loss is unconscious, while in mourning it is not (this idea is similar to Abraham, as noted above). Furthermore, in melancholia the object has "not perhaps actually died, but has been lost as an object of love" (p. 245).

Freud believed that during childhood the melancholic individual must have had intense ties to an object which were undermined due to disappointments in this relationship. This leads to a great deal of ambivalence about the object. Once this relationship ended, the melancholic individual, due to the narcissistic nature of the relationship, turned this libido onto their own ego (instead of looking for new objects) in an attempt to hold on to it. Freud stated that "...by taking flight into the ego love escapes extinction" (p. 257). Unfortunately, this then leads to the ambivalence (originally felt toward the object) being directed against the person's own ego.

Toward this end, Freud notes that in melancholia the patient has delusions of moral inferiority, is often sleepless, will not eat, and is not motivated by the "...instinct which compels every living thing to cling to life." (p. 246). He speculated that this self-reproach must originate in the ego, and described in part what he would later call the superego:

> We see how in him one part of the ego sets itself over

> against the other, judges it critically, and, as it were, takes it as its object. Our suspicion that the critical agency which is here split off from the ego might also show its independence in other circumstances will be confirmed by further observation. We shall really find grounds for distinguishing this agency from the rest of the ego. What we are here becoming acquainted with it the agency commonly called 'conscience'; we shall count it, along with the censorship of consciousness and reality-testing, among the major institutions of the ego, and we shall come upon evidence to show that it can become diseased on its own account. In the clinical picture of melancholia, dissatisfaction with the ego on moral grounds is the most outstanding feature (pp. 247-248).

Freud then made a crucial observation about these self-accusations:

> If one listens patiently to a melancholic's many and various self-accusations, one cannot in the end avoid the impression that the most violent of them are hardly at all applicable to the patient himself, but that with insignificant modifications they do fit someone else, someone whom the patient loves or has loved or should love... So we find the key to the clinical picture; we perceive that the self-reproaches are reproaches against a loved object which have been shifted away from it on to the patient's own ego (p. 248).

What we see here is an early example of object-relationships being the key feature of psychopathology along with the vicissitudes of libido. In summary, Freud believed that this resulted from a shattering of a once libidinized object-relationship. In melancholia, this libido is not displaced onto a new object (as it usually is) but rather withdrawn into the ego, serving to establish an identification with the lost object.[4] In Freud's now classic phrase: "The shadow of the object fell upon the ego" (p. 249). Therefore the object-loss becomes an ego-loss, and the feelings directed towards this object become directed against the ego that has identified with this object.

[4] An interesting paper by Bak (1973) describes some similarities between "being in love" and many of the dynamic factors important in depression (i.e. overvaluation of the object, previous object loss, psychic regression).

Freud believed that identification is a more primitive form of object-relationship than a mature genital relationship, and as already mentioned Abraham suggested that this identification involves fantasies of oral incorporation. Furthermore, like Abraham, Freud believed that this primitive mode of relating was due to a regression to the narcissistic oral phase. This phase is said to be narcissistic because all of the libido is invested in the person's own ego (during the oral phase the infant does not yet have the mental ability to form object relationships, or differentiate objects from him/herself. Therefore it is believed that at this point the child is narcissistic).

Another important aspect of this object relationship is ambivalence. Freud believed that: "The melancholic's erotic cathexis in regard to the object has undergone a double vicissitude: part of it has regressed to identification, but the other part, under the influence of the conflict due to ambivalence, has been carried back to the stage of sadism..." (pp. 251-252). This tendency towards sadism is what Freud believed to be at the root of the suicidal preoccupation so often found in melancholia (Interestingly, Bellak [1952] mentions that some authors feel that the wish to die is in fact an oral wish to be able to relax, be passive, and to sleep, as if at the mother's breast).

Although Freud never again discussed depression in similar detail, he did return to the subject briefly in later writings, although they will not be discussed here (See Robertson, 1979a, 1979b; Parkin, 1976, for a discussion of these later ideas).[5] Although some of these later writings contradict his earlier ideas (Bemporad, 1988; Pedder, 1982), they were never as fully developed, or as influential, as those found in "Mourning and Melancholia."

The final theorist who is considered a contributor to the "classical" analytic views on depression is Sandor Rado. In 1928 (1968) he published a paper which, although not ground-breaking in terms of theory, did offer a concise view of the existing theory, especially in light of Freud's new structural theory which was published in The Ego and The Id (1923/1961). Rado was able to incorporate this new theory into the existing theory of

[5] Interestingly, independently of Freud an Englishman, Alfred Carver, came to similar conclusions as to the dynamics involved in melancholia, although he was apparently unfamiliar with Freud's paper (cited in Mendelson, 1974).

depression, especially emphasizing the role of the superego and early infantile situations which are the precursors of later depression.

Rado believed that the most striking feature of depression was the fall in self-esteem and self-satisfaction (a notion that was to be especially emphasized by later ego-psychologists). He states:

> We find in them, above all, an intensely strong craving for narcissistic gratification and a very considerable narcissistic intolerance. We observe that even to trivial offenses and disappointments they immediately react with a fall in self-esteem. Their ego then experiences an urgent craving to relieve in some way or other the resulting narcissistic tension (p. 72).

Unfortunately, since their attitude towards others is basically narcissistic, they need to gain self-respect from without, thereby leaving them forever vulnerable to other's actions. Their own accomplishments mean very little to them if no one else recognizes and loves them. In this sense he believed that depressed persons were very much like children.

The narcissistic object ties lead to a further pitfall:

> But as soon as they are sure of the affection or devotion of another person and have entered into a fairly secure relation with him or her their behavior undergoes a complete change. They accept the devoted love of the beloved person with a sublime nonchalance, as a matter of course, and become more and more domineering and autocratic, displaying an increasingly unbridled egoism, until their attitude becomes one of full-blown tyranny. They cling to their objects like leeches (to use a phrase of Abraham's) and feed upon them, as though it were their intention to devour them altogether (p. 74)

Here we see that Rado, like Abraham and Freud, believed that this narcissistic orientation had a strong oral-sadistic character to it.

Rado further examined to ego's self-reproaches, and described this as the ego doing "penance," while also exhibiting "a great despairing cry for

love." However, at this point he points to an interesting paradox, in that the theory posits that the depressed person has withdrawn their interest from the object. Why then is the person striving for reconciliation and love from this object? Rado states:

> ...but the melancholiac has transferred the scene of his struggle for the love of his object to a different stage. He has withdrawn in narcissistic fashion to the inner world of his own mind and now, instead of procuring the pardon and love of his object, he tries to secure those of his super-ego. We know that his relation to the object was marked by the predominance of the narcissistic desire to be loved, and it is quite easy for this aspiration to be carried over to his relationship with his own super-ego. It is as if the ego of the melancholiac were to say to his super-ego: "I will take all the guilt upon myself and submit myself to any punishment; I will even, by ceasing to care for my bodily welfare, offer myself as an expiatory sacrifice, if you will only interest yourself in me and be kind to me" (quotations in original, p. 75).

Although Rado does not mention the term introjection, one can see the similarity between what he is describing and the introjective process as described by Freud and Abraham.[6] Furthermore, Rado's explanation attempts to shed light on the sometimes astounding way in which the depressed person will let their life and even their own self go to pieces. Rado also noted the similarity between the "desperate cry for love" that occurs between the person and the object and the later attempt at forgiveness that occurs between the ego and the superego. Rado notes the similarity of the process to the normal formation of the superego, but states that in the depressed person this process goes too far and is especially problematic because it is unconscious. Therefore, although Freud hinted at this concept in his work, Rado was the first theorist to specifically posit an overly harsh superego as one of the main problems in depression.

[6] It should be noted that in many of these writings the terms incorporation, introjection, and identification are used interchangeably. Robertson (1979b) gives a concise explanation of these terms and their differences.

Rado uses infantile hunger as the prototype of the self-persecution and feelings of depression:

> I think that if we trace the chain of ideas, *guilt-atonement- forgiveness*, back to the sequence of experiences of early infancy: *rage, hunger, drinking at the mother's breast*, we have the explanation of the problem why the hope of absolution and love is perhaps the most powerful conception which we meet with in the higher strata of the mental life of mankind (p. 80- italics in original).

In other words he believed that this sequence was the way in which the infant learned to obtain forgiveness and love from the mother by appropriate remorseful acts. It is this remorseful behavior in an attempt to win back love that Rado sees as imperative in the understanding of melancholia. It is only when this does not work with the object that the battle is internalized and continued in the psychic plane.

In 1951 (1968) Rado again wrote on the subject of depression. He continued the exploration of the role of repentance in depression, but introduced some new factors which complicated the picture:

> However, the patient's dominant motivation of repentance is complicated by the simultaneous presence of a strong resentment. As far as his guilty fear goes, he is humble and yearns to repent; as far as his coercive rage goes, he is resentful (p. 98).

It is easy to see from this formulation how a depressed person can feel so helpless and stuck, and one can't help but notice the similarity here with Abraham's first contribution, in which hate was seen as a paralyzing force.

Rado also explored this rage in relation to the depressed person's guilt. He believed that, due to their aggression towards the object, the person feels that they are to blame for its loss (an idea that is not always far from the truth).

In summary, Rado states:

> Based on these findings, we view depression as a process of miscarried repair. To a healthy person a serious loss is a challenge. He meets the emergency by calming his emotions, marshaling his remaining resources, and increasing his adaptive efficiency. Depressive repair miscarries because it results in the exact opposite. Anachronistically, this repair presses the obsolete adaptive pattern of alimentary maternal dependence into service and by this regressive move it incapacitates the patient still more (p. 101).

It is this regression to old adaptational patterns which causes the ambivalence, because the purpose of these patterns is: "...to destroy the *frustrating* aspect of the beloved one (formed in the split-off image of the 'frustrating mother'), while retaining the *gratifying* aspect of the beloved one (formed in the split-off image of the 'gratifying mother')" (p. 102, italics in original).

Although these three contributors are the main source of the classical theory, two other authors have written important book chapters which emphasize and elaborate on many of the theoretical points already described. The first of these was Helene Deutsch, who in 1932 described an intense case of depression. Although this case study adds little that is new to the existing theory, she does offer corroboration of many of the earlier findings from her extensive clinical material. For instance, she notes the presence of both obsessional and melancholic symptoms in her patient. She also noted that: "It not seldom happens that the outbreak of depressive states is brought about by an apparently trivial loss, a change of abode or something similar. These events are merely the immediate and welcome occasion for the break-through of deeper, more significant, and hitherto suppressed reaction" (pp. 219-220). The following passage describes case material that is in line with the material discussed so far:

> By pursuing our patient's psychical development we are able to form a consecutive scheme of what went on within

> her. First, hatred and aggression against her sister; defense against these impulses through obsessional neurotic mechanisms; afterwards successful over-compensation for the hate through love and tenderness; satisfaction for the narcissistic injuries through identification with the sister; and finally, transformation of the aggressions into a masochistically satisfying self-sacrificing for her... After the disappointment at the hands of her sister this psychical arrangement is not given up; it is only added to by new quantities of aggressive impulses, until the patient becomes seriously ill. The identification is maintained, as well as the masochistic turning against the ego. The punishment to which she had doomed the sister, of being "thrown out into the street", in order that she should meet with a miserable end there, we hear the patient demanding with monotonous regularity, no longer, however, as a threat against her sister but against herself... (pp. 220-221).

For the interested reader, Deutsch goes on to give many examples from this case which support the theoretical ideas put forth by Abraham and Freud.

In Fenichel's encyclopedic The Psychoanalytic Theory of Neurosis (1945) he devotes a chapter to depression and mania. Fenichel begins this chapter with an emphasis, following Rado, on self-esteem in depression:

> A person who is fixated on the state where his self-esteem is regulated by external supplies or a person whose guilt feelings motivate him to regress to this state vitally needs these supplies. He goes through this world in a condition of perpetual greediness. If his narcissistic needs are not satisfied, his self-esteem diminishes to a danger point (p. 387).

Furthermore, due to the narcissistic nature of their object relationships depressives are almost never satisfied:

> These persons, in their continuous need of supplies that give sexual satisfaction and heighten self-esteem simultaneously, are "love addicts," unable to love actively; they passively need to feel loved. Besides, they are

> characterized by their dependence and their narcissistic type of object choice. Their object relationships are mixed up with features of identification and they tend to change objects frequently because no object is able to provide the necessary satisfaction (quotations in original- p. 387).

Fenichel goes on to discuss the oral and anal dynamics involved in much the same way as Abraham. Furthermore, in discussing the introjection (and the resulting inwardly directed hostility) that takes place, he states :

> The outcome is that the struggle *subject vs. introject* becomes complicated in two ways: in the foreground is the struggle *superego vs. ego + introject*; but the ego, in its ambivalence toward the superego, changes it also into a struggle of *ego vs. superego + introject* (italics in original- p. 393).

Fenichel, in a similar vein as Freud, also notes the ambivalence and how it serves to differentiate mourning and depression:

> Mourning becomes more complicated or even pathological if the relationship of the mourner to the lost object was an extremely ambivalent one. In this case the introjection acquires a sadistic significance; the incorporation then not only represents an attempt to preserve the loved object but also an attempt to destroy the hated object. If a hostile significance of this kind is in the foreground, the introjection will create new guilt feelings (pp. 394-395).

These guilt feelings are brought about by the superego which has enlisted the sadism inherent in the introject, an idea which Freud was leading to in "Mourning and Melancholia" (although the agency of the superego had not yet been differentiated from a "part of the ego"). Fenichel states that in melancholia it is as if the main emphasis of the personality is now the superego, instead of the ego.

In summary, Fenichel gives a concise description of the etiology of

depression:

> Now at last we are in a position to understand which conditions actually make for the predisposition for subsequent depressions. The decisive narcissistic injuries must have taken the form of severe disappointments in the parents, at a time when the child's self-esteem was regulated by "participation in the parents' omnipotence". At this time, a dethroning of the parents necessarily means a dethroning of the child's own ego. Probably it is not only so that after disappointments of this type the child asks for subsequent compensating external narcissistic supplies throughout his life, thus disturbing the development of his superego; he also tries to compensate for his parental insufficiencies by the development of a specially "omnipotent", that is, strict and rigid, superego... (quotations in original- p. 405).

Therefore, in Fenichel's view it is not necessarily the loss of an object that is being mourned, but more the loss of the self-esteem that the object symbolized. It is possible that this too leads to the depressive's quest for perfection and their feeling that they have to achieve for the whole family, a dynamic that Cohen, Blake, Cohen, Fromm-Reichmann, and Weigert (1954) found was quite prevalent in their intensive case studies of manic-depressives.

Although much of this theory was developed during the beginning of this century, many of the hypotheses derived from it are still widely accepted and used in the treatment of depressed individuals. For example, Stone (1986), in a review of his work with 23 depressives, summarized that:

> ...the considerations of pathologic narcissism (including the overexigent ego ideal), aggression toward the primary object, oral ambivalent regression, and "identification" with the disappointing object, are in varying degree, and inner mutual relatedness, important in most if not all cases of true depressive illness, and should be taken into account in evaluating their pathology. While each of these factors is a dynamic entity in its own right, they operate synergistically in the complex of depressive illness (quotations in original- p. 359).

Papers by Whitaker and Deikman (1980), Bellak (1981), Dahl (1988), Milrod (1988), and Teixeira (1990) also describe the therapy of depressed individuals based on many of the theoretical propositions described herein. Interestingly, even Sullivan (1956), although of a different theoretical bent than those theorists discussed so far, noted the presence of hostility in depression:

> Although I have not been able to document my observations to any extent, an equally important surmise I would make is that other people must *suffer* from the depression. Sometimes the performance of the depressive is quite clearly punitive. And the troublesome performances of a depressed patient occasionally disappear when it becomes evident that there is nobody who would suffer from them (italics in original, pp. 296-297).

Furthermore, he notes the process of hostility turned against the self in suicide:

> And just as I have said at various times that schizophrenics kill themselves by misadventure, I think that depressives do too- the misadventure being that they die in the process of making a supposedly unhealing wound in an enemy.... It left me with what I believe is a supportable hypothesis- namely, *that a particular person who was a destructive influence in the patient's past is the target of the patient's self-destruction. The intention is that that person shall suffer the rest of his life because the patient has destroyed himself* (italics in original, p. 298).

As is evident from this review, although important differences do exist, all of these theorists (other than Sullivan) posit the importance of inwardly directed hostility and oral fixation or regression in depression.[7] Let us now

[7] It should be noted that there has been a good deal of more recent work on depression by psychoanalytically oriented theorists. Overviews of work by such theorists as Gero, Klein, Lorand, Bibring, Jacobson, Sandler, and Bowlby can be found in Mendelson (1974), and many of their seminal works have been collected in Gaylin (1968).

examine some of the empirical work which has attempted to elucidate these hypothesized relationships.

Existing Research

As with other areas in psychoanalysis, although the analytic theory of depression is quite prevalent in current thought on dynamics and treatment, there is only a small amount of empirical investigation into the psychoanalytic theory of depression. The following section will examine critically the research that has attempted to assess the validity of certain aspects of the theories previously discussed. In order to conserve space, only the major conclusions will be discussed here, and readers interested in details such as effect size are directed to Appendix A.

Hostility and Depression

In a paper examining epidemiological data about depression and suicide, Kendell (1970) set out to check the hypothesis (based on the psychoanalytic theory of aggression turned against the self) that depression should be greater in situations where aggression is aroused but its expression is prevented, than in situations where there is little frustration, or aggressive outlets are available. He believes that this hypothesis is easier to test empirically than the intrapsychic psychoanalytic hypotheses, even though they are similar and would expect similar results. Using all major sociological studies available he found several conclusions which corroborate this hypothesis. For instance, he found a stable inverse relationship between homicide and suicide in a number of geographical locations, as would be predicted. Kendell states: "Taken together, these facts constitute an impressive body of evidence, but the inverse relationship which they suggest is not invariable" (p. 311). Other relationships he examined were cultural variation, social class, gender, ethnicity and incidence of depression. In conclusion Kendell states that:

> All that can be said at present is that there is no flagrant

> discrepancy between existing evidence and the requirements of the hypothesis.... Perhaps the strongest argument in favor of the "inhibited aggression" hypothesis is that it accounts for most of what we know of the epidemiology of depression by means of a single assumption (quotations in original- p. 316).

Kendell does note, however, that there are other possible explanations for these findings and that this relationship is by no means completely understood.

A group of studies have attempted to assess this relationship empirically by using the Hostility and Direction of Hostility questionnaire (HDHQ- Caine, Foulds & Hope, 1967), a measure constructed from 52 MMPI items which is used to assess intropunitiveness (broken down into self-criticism and guilt scales) and extrapunitiveness (broken down into acting-out hostility, projected delusional hostility, and criticism of others). The first of these was done by Foulds, Caine and Creasy (1960), who examined 40 (20 men and 20 women) psychiatric in-patients in each of the following diagnostic categories: Hysterics with hysteroid personality, dysthymics with hysteroid personality, dysthymics with obsessoid personality, melancholics, paranoid states, and psychopaths (the way in which these diagnoses were reached was not disclosed). A group of 40 hospital staff members (or members of their families) made up the comparison group.

Only the results relevant to the current discussion will be addressed. It was found that for males, the melancholics, along with paranoid patients and psychopaths, differed significantly from all other groups on the projected delusional hostility scale. The fact that the male melancholics displayed more projected hostility is in contradiction to the psychoanalytic theory of aggression turned against the self. No difference for female melancholics was found on this measure, but it should be noted that the melancholic women scored lower on this than any of the other groups of women patients. On the self-criticism measure obsessoid dysthymic men scored significantly higher than the rest. This also was not found for women. Both male and female

melancholics exhibited significantly more delusional guilt than all other groups except psychopaths, as would be expected from psychoanalytic theory. Finally, this study also points to the possibility that men and women experience depression differently, a proposition that has not received adequate empirical investigation.

It should be kept in mind when evaluating these results (and those of the studies that immediately follow) that the measures being used are entirely self-report, a method of research which has come under some scrutiny (Kagan, 1988). This problem may be especially prevalent with certain depressed individuals, who are hypothesized to avoid or deny their hostile impulses.

The next study to use this questionnaire was done by Mayo (1967). He examined 24 depressed inpatients (16 women, 8 men). Subjects were tested twice, once upon admission, and once six weeks later. In the interim subjects were treated with drugs or E.C.T. (the effects of which were not addressed). At both pre- and post-test subjects were given the HDHQ, a symptom-sign inventory (SSI- which discriminates between psychiatric diagnoses), and a hysteroid-obsessoid questionnaire. Clinical improvement was rated on a five point scale by a consultant psychiatrist.

The results of the SSI differentiated the subjects into 8 melancholics and 14 neurotic depressives. It was found that none of the extrapunitive scales changed significantly with clinical improvement. Both of the intropunitive scales (self-criticism and guilt) showed significant decreases with improvement. Differences were also found between the melancholic patients and the neurotic depressives, such that the melancholics showed more overall punitiveness, criticism of others, projected delusional hostility, and guilt.

Philip (1971) used this measure to compare a group of 18 depressed women who improved after drug treatment to 18 women who did not (as measured by the Beck Depression Inventory [BDI]; Beck, Ward, Mendelson, Mock & Erbaugh, [1961]). Both groups were nearly identical in terms of severity of depression upon admission.

It was found that the extrapunitive scales did not change over time, and

there was no difference between the groups. Intropunitiveness did differ significantly both between testing occasions and between groups, demonstrating that patients who did not show improvement were more intropunitive at both pre- and post-test. Subjects who did improve demonstrated significantly less intropunitiveness at post-test than at pre-test. Also, compared to normative scores both groups of patients scored significantly higher on the intropunitive scale.

The final study to use this measure was done by Blackburn (1974), who attempted to assess the differences between six groups of patients in terms of hostility. The patient groups were (as diagnosed by a consultant psychiatrist): Bipolar- actively manic, Bipolar- recovered manic (no present symptomatology, last episode was manic), bipolar- actively depressed, bipolar- recovered depressed (no present symptomatology, last episode was depression), unipolar- actively depressed, and unipolar- recovered depressive. There were 18 patients in each group except the bipolar depressed group, which had 16. The gender of the patients was approximately even in each group.

Compared with the normative data (in Philip, 1971), both groups of patients with active depression scored significantly higher on the intropunitiveness scales. Both the manic and all of the recovered groups did not differ significantly from the normals. On the extrapunitiveness scale, only the active manic group was higher than the normals. In comparing the three active groups, it was found that the manic group had significantly lower intropunitiveness scores and higher extrapunitiveness than the depressives (both uni- and bipolar). In comparing the active and recovered groups, it was found that for both the bipolar and unipolar depressives the recovered group were significantly lower than the active group on intropunitiveness. On extrapunitiveness, the active manic group was significantly higher than the recovered group; no differences were found for either depressed group.

Although this study still does not answer any questions regarding etiology or cause and effect, it does demonstrate that internalized hostility is only a factor in active depression, and that once recovery from depression has

taken place, inward hostility returns to "normal" levels.

Taken as a whole, these four studies offer some corroboration for the psychoanalytic theory of the co-existence of inwardly directed hostility and depression, as well as demonstrating that upon recovery this hostility returns to levels comparable with "normal" (non-depressed) subjects.

A study by Caine (1960) used a precursor of the HDHQ to explore the expression of hostility and guilt in 26 hospitalized melancholic and paranoid women. Other measures used were a sentence building task, the TAT (scored for hostility and guilt), and a psychomotor tapping task. Caine found that on the HDHQ scales the depressed subjects had significantly higher scores on the self-criticisms/guilt scale, but significantly lower scores on the projection of hostility scale than the paranoid patients, as was expected from psychoanalytic theory. The sentence building task demonstrated the same results, and on the TAT the paranoid patients demonstrated more hostility than the melancholiacs. The main problem with this study is that due to the lack of a control group it is impossible to compare these results with "normals." Therefore even though the results were as expected in terms of the psychoanalytic theory of depression, we do not know if the melancholics here would have shown significant differences in regards to these scales when compared to "normals." However, based on the results of the previously mentioned studies, this study adds further corroboration for the relationship between intropunitiveness and depression.

Another self-report questionnaire that has been used in the study of depression is the Buss-Durkee Inventory, a 46 question inventory which divides hostility into 7 subclasses (assault, indirect aggression, negativism, verbal hostility, resentment, suspicion, and internalization of anger). Friedman (1970) used the Buss-Durkee Inventory to assess aggression and hostility in 534 depressed inpatients (71% of whom were female). Friedman was attempting to assess changes in hostility as related to clinical improvement. In order to monitor change he had the patients rate how they were feeling each day, as well as answer a 22-item inventory about behavior and feelings. At baseline (when the patients were first admitted), the depressives reported

significantly less verbal hostility and more resentment than matched controls from the community.

By examining the subtypes of depression from the Buss-Durkee Inventory, some other interesting results were found. For instance, the amount of externalization of aggression and internalization were positively correlated, suggesting that there is not a static quantity of aggression that is either expressed inward or outward.

In terms of the relationship between hostility and patient-rated improvement, it was found that by the seventh week of treatment, the greater the improvement the less the hostile-aggression of all types. The most significant effects were found for resentment and the amount of internalization. He believes that the results are most parsimoniously explained by the fact that as the patients improve, they feel better and have less need or desire to be hostile, as they are feeling better. He also states that these results are probably not due to the medication, as they were only taken for the first five weeks.

Another finding was that depressed people expressed less verbal hostility than controls while depressed, and that this difference increased even further with clinical improvement. Friedman states that it is possible that in depression-prone individuals the tendency (even when not depressed) is to express very little verbal hostility. Even when not depressed, although they express more hostility than is usual for them, it is still less than "normals." He states: "Their tendency to deny the 'bad' in significant others, and to perceive them selectively so that they do not consciously become angry and depressed, may be greater during their 'benign' remitted, symptom-free intervals; and may be one of their ways of attempting to ward off a disturbed or depressive reaction" (p. 532- quotations in original).

One final finding of interest was that a significant positive correlation was found between degree of depression and internalization, and the highest correlation with the guilt-worthless scores from the Buss-Durkee Inventory were also with internalization. Therefore, even though internalization did not differentiate between depressed subjects and the controls, when considering

just the patient sample it did correlate with degree of depression and guilt feelings (and there is a significant positive correlation between decrease of internalization and improvement). He states that this finding lends some corroboration to the classical view of depression.

This study, like those discussed previously, has the problem of using only self-report measures of depression. Also, even though the patients only took medication for the first 5 weeks, the effects of the medication could conceivably still have been present at the seventh week. Another problem with this study (and many others) is that, as Friedman rightly points out, the definition of internalization used in the Buss-Durkee is not really in line with psychoanalytic writings. Friedman describes this scale as being composed of "...items...including such somatization items 'When I am mad or angry, I usually get a headache,' and also tendencies to irritability." (p. 526). As is quite apparent, this is not the same conceptual framework as described by Freud, Abraham, and Rado. Finally, a comparison between an outpatient and a control group might have been better as it would have avoided any possible effects of hospitalization.

Weissman, Klerman and Paykel (1971) used interview data to examine hostility in 40 depressed women (outpatients) and 40 controls (nonsymptomatic). At the initial interview a psychiatrist rated "uncooperativeness" and hostility based on the interview. Also assessed by the psychiatrist was the patient's hostility towards others, their irritability (both based on their self-report during the interview), and a research assistant rated their friction with others based on the interview material.

It was found that depressed individuals demonstrated little hostility in the actual interview, but hostility towards others was rated in the moderate range, especially in regards to their immediate family. The authors state that this is in agreement with the psychoanalytic theory, which posits ambivalence towards love objects.

A study by Pilowsky and Spence (1975) attempted to examine the relationship between hostility and "endogenous" and "nonendogenous" depression. They cite past research which has been somewhat contradictory

in terms of the relationship between these variables, and also discuss past factor analytic research which has demonstrated different patterns or subgroups of depression, often involving an endogenous type and a second that involved self-pity, hypochondriasis, complaining and demanding behavior, irritability and hostility, and anxiety.

This study examined self-ratings of anger by 68 depressed inpatients (53 were women) in relation to the "endogenicity" of their depression. Classification of endogenous or nonendogenous was made by way of a self-administered depression questionnaire (see Pilowsky & Spence, 1975, for an example of this questionnaire). Anger and sadness were measured by way of visual analogy scales in which the subject indicates on a line (the extremes of which are labeled "I do not feel at all angry" and "I feel as angry as I could be") how they are feeling. The authors believed that the nonendogenous depressives would report more hostility than the endogenous group.

They found that the nonendogenous group did indeed obtain a mean anger score that is "substantially higher" than the endogenous group, although this difference failed to meet statistical significance. They state that their results corroborate the use of hostility as a factor in determining depressive typology, and state: "This finding is in keeping with the importance that clinicians have ascribed to inhibited expression of hostility in endogenous depression, and supports the view that the presence or absence of anger constitutes an important variable in the genesis of depressive syndromes" (pp. 1158-1159).

Certainly the main weakness of this study is the self-report nature of the measure used to classify the patients and to assess their feeling states. Also, the psychoanalytic theory does not state that depressed individuals will necessarily report or even be conscious of hostility. In fact, according to some theorists one would expect depressed individuals to report *less* overt hostility, as this hostility is either being turned against the self or being avoided so as not to threaten the loss of a love object (Rubinfine, 1968).

In Gottschalk and Gleser's (1969) book examining the measurement of psychological states through the content analysis of verbal passages, they

describe many validation studies of their hostility scales which speak to the question of hostility and depression. Very briefly, they created three hostility scales (hostility directed in, out, and ambivalently) for use in scoring five minute samples of free associations (a more thorough discussion of this method and scoring will be discussed in the method section of the present work).

As part of their initial investigations into the efficacy of these scales, they found that in a group of 19 psychiatric inpatients their Hostility Directed Outward Scale (HDO) correlated negatively (-.28) with depressed state, and their Hostility Directed Inward Scale (HDI) correlated .35 with depressed state, as would be expected from psychoanalytic theory. They also described a study comparing 12 depressed and 12 nondepressed patients and found the HDO score to correlate -.18 with the BDI, and the HDI Scale correlated .47 with the BDI. In a study of 50 outpatients the HDI scale correlated .34 with the BDI and .52 with depression scores from an adjective checklist, while the Ambivalent Hostility Scale correlated .37 with the BDI. In all, the correlations from these validation studies are all in the expected direction based on psychoanalytic theory (see Chapter 6 of Gottschalk and Gleser, 1969, for a more thorough discussion of these studies).

Since the introduction of these scales, a large body of research has utilized them. Two studies by Klerman and colleagues (Klerman & Gershon, 1970[8]; Gershon, Cromer, & Klerman, 1968) used these scales to examine over time (11 weeks) a small number of patients who were taking psychotropic medication. Because these studies involved only 3 and 6 patients, respectively, these results should be considered exploratory. In the first study, no significant differences on any of the scales were found between the periods before and during treatment (although there was a slight reduction in hostility-in), even though the patients did show clinical improvement. The second study utilized a modification of the Gottschalk-Gleser scales, which involved separating the self-critical statements from verbal expressions of depression, both of which are part of the hostility-in

[8] See this article for a discussion of other studies examining the effects of antidepressants on hostility.

scale in the original formulation. Gershon et al. (1968) believe that since they were in part testing the formulation that hostility directed inwards may lead to depression, the verbal expressions of depression should be scored in a separate category, which they called "affect-in." The remainder of the hostility-in scale was named the "modified hostility-in scale." The results revealed no difference in any of the hostility scores based on whether the patient was taking medication or not; therefore medication effects were ignored (this result also speaks to some of the concerns raised previously in this discussion). They found that depressive symptomatology was positively correlated with hostility-in, as well as their two modified scales. No correlation was found with hostility-out and depressive symptomatology. However, they noticed that 2 patients who had hysterical traits appeared to exhibit significantly higher hostility-out than the depressed patients who did not have hysterical traits. They speculate that there might be two different patterns in depression, a notion that has received support elsewhere (Hamilton & White, 1959; Rosenthal & Klerman, 1966; Rosenthal & Gudeman, 1967).

Gottschalk, Hoigaard, Birch and Rickels (1979) used these scales to examine the relationship between hostility and symptomatology in 35 outpatients who were receiving either psychotropic medication or placebo (they did not mention the gender of the subjects). Subjects were assessed at both pre- and post-drug periods. Only the results pertaining to depression measured at the pre-drug period will be addressed here; they found that depression scores on a symptom checklist correlated .37 with inward hostility, while the other hostility scales were uncorrelated with depression. In this same year, Schöfer, Koch, and Balck (1979) set out to undertake a normative study of these scales in Germany, as an attempt to further validate their usefulness. In a sample of 406 subjects they found a significant correlation between depression, as measured by a mood adjective check list, and inward hostility ($r = .22$). Unlike in previous studies, they also found a significant correlation between depression and overt hostility-out ($r = .16$).

Lemaire & Clopton (1981) used the Gottschalk-Gleser scales to examine 7 depressed (as assessed by the MMPI) and 11 control

undergraduate students (12 females, 6 males) over a six-week period. Each subject was assessed once a week. They found that depressed subjects expressed more inward, outward, and total hostility than non-depressed subjects. For both groups there was an inverse relationship between inward and outward hostility. They also found no significant changes in hostility over time.

Another study which used the Gottschalk-Gleser scales was undertaken by Rubin (1986), parts of which were later reported by Rubin, Abeles, and Muller (1992). Rubin (1986) used the Gottschalk-Gleser scales to examine hostility in 40 outpatient psychotherapy patients. Symptomatology was assessed via the symptom checklist (SCL-90-R), which has a depression scale. For the whole sample, he found a significant correlation ($r = .34$) between inward hostility and depression; for females, this correlation was even higher ($r = .54$).

Other methodologies have also been used to assess the relationship between depression and hostility. Wessman, Ricks and Tyl (1960) used the Rosenzweig Picture Frustration Test (a projective measure[9]) and a mood scale to assess mood fluctuations in 25 college women. Contrary to prediction, the authors found that the frequency of extrapunitive responses was significantly higher, and intropunitive responses were significantly lower, in subjects reporting depression. They suggest that the point at which hostility shifts from extrapunitive to intropunitive may be when relatively minor depression (note that the subjects were college students, and not patients) becomes a severe affective disorder. Some corroboration for this notion is found in a dissertation by Bulatao (1961, cited in Gershon, et al., 1968), which found that in a sample of hospitalized depressed women there was a lower frequency of extrapunitive responses and a higher frequency of intrapunitive responses in depressed patients.

Cochrane (1975a) has examined the relationship between hostility and depression using the Object-Relations Technique, a projective test for which

[9] This test assesses the direction of aggression as either "extrapunitve," "intropunitive," or "impunitive."

he has devised an aggressive content scoring system. Simply put, the projective material was scored based on whether the aggression was controlled or uncontrolled (i.e. destructive), direct or symptomatic, and its "containment" (identification of the victim and the agent, if applicable-- see Cochrane [1975c] for a more systematic discussion of this technique and his scoring scheme). He was specifically interested in comparing the classical psychoanalytic (as described above), the Kleinian theory (which posits that the aggression in depression should be uncontrolled and symptomatic), and the "Inhibition of aggression" theory (as described above by Kendell [1970]-- see Cochrane [1975c] for further elaboration of these theories). Subjects were 200 psychiatric inpatients (124 female) of a variety of diagnoses, assessed for depression on a battery of tests including the BDI and observer ratings. Subjects were classified as being neurotically depressed, endogenously depressed, or non-depressed. Subjects were withdrawn from medication 24 hours before testing.

Although the results are complex, as he examined each depression measure and scoring category separately, many significant findings were reported, demonstrating that there was a significant difference in many of the aggression categories between depressed and non-depressed patients. In terms of the classical theory, the results did not differentiate between the endogenous and non-depressed subjects. However, they did differentiate neurotic depressives from the non-depressed subjects. The Kleinian theory successfully differentiated endogenous from non-depressed subjects, but failed to differentiate neurotic depressives. The inhibition of aggression theory also differentiated endogenous from non-depressed subjects, while only being partially successful at differentiating neurotic from non-depressed subjects. He concludes that the Kleinian and inhibition of aggression theories are the best predictors overall, while the classical theory was best for differentiating neurotic depressives, although it was not very good. This finding is somewhat surprising due to the fact that most of the classical theory is based on material from rather severe cases, which one might assume to be "endogenous" He concludes that:

> Neither the classical psychoanalytic, the Kleinian, nor the inhibition of aggression theories concerning the relationship between aggression and depressive illness seem satisfactory for either neurotic or non-specific secondary depression. The classical theory is also seen to be unsatisfactory for endogenous depression. Here, however, both the Kleinian and inhibition theories appear to be 'good' theories, with the latter perhaps being favored. Yet some doubt is thrown on the claim of all the theories that aggression is a causal factor in depression, there being evidence to suggest that a drive frustration theory of depressive illness could perhaps be tenable (quotations in original- p. 126).

Certainly this study is not without problems. First of all, there is no explanation of how the characterization of endogenous or neurotic depression was made. Second, since the subjects had been on psychotropic medication (the 24 hour period in which the drug was stopped would not be enough to stop its effects) some of the results may be contaminated by the effects of the medication. Also, the predictions he made based on the three theories appear to bias in favor of the inhibition theory, which is in part similar to the classical psychoanalytic theory. In other words, many of the predictions concerning the inhibition of aggression hypothesis could also have been made for the classical psychoanalytic theory. Unfortunately, because the results did not examine each variable on its own, and simply compared the overall expected differences between groups, it is impossible to examine more specific hypotheses, such as the relationship between self-directed hostility and depression. One of the strengths of this study is the use of a projective measure of aggression instead of the typical self-report inventory.

Another interesting corpus of research attempts to assess the relationship between hostility and depression using Silverman's (1976) subliminal psychodynamic activation technique. This method involves the subliminal tachistoscopic presentation of words or phrases thought to be either conflict-arousing or resolving, for example "mommy and I are one."

Rutstein & Goldberger (1973) used this methodology to test Freud's (1917) theory that suicide (and depression in general) is the result of the turning of hostile impulses inward (see Rutstein & Goldberger, 1973, for a discussion of other studies examining suicide and hostility). In this study they tested the hypothesis that suicidal subjects would show increases in inward hostility and depression following subliminal presentation of aggressive stimuli compared to themselves following presentation of a neutral stimuli, and compared to control (non-suicidal) subjects. They also believed that these effects would not be found following supraliminal presentation of these stimuli, or following libidinal stimuli. Subjects were 64 female inpatients, 32 of whom had made serious suicidal attempts before or during hospitalization. The other 32 had never made a suicidal attempt and were not diagnosed as depressed.

The stimuli used contained both pictures and words. The aggressive stimuli contained the words "Destroy Mother" along with the picture of a young woman with a knife about to stab an older woman. The stimuli intended to gratify the subject's libidinal wishes was "Mommy Loves Me" along with a picture of a little girl embracing a young woman. The control (neutral) stimuli contained the words "People Are Walking" with a picture of two men walking (4 other control stimuli were also used).

The Multiple Affect Adjective Check List and the Rorschach, which was scored for aggression inward and outward, as well as libidinal content (following Holt, 1968, cited in Rutstein & Goldberger, 1973) were the measures used. To summarize, the methodology involves each subject serving as her own control and being seen for four experimental sessions ("subliminal aggressive," "subliminal libidinal," "subliminal control," and "supraliminal aggressive"). These sessions were counterbalanced. Each session involved a baseline and a "critical" (after presentation of the given stimuli) assessment of the subject's functioning, using both the Rorschach (different cards for baseline and critical) and the adjective checklist (see Rutstein & Goldberger [1973] for a more thorough discussion of the methodology and procedure).

They found that, as expected, the suicidal group showed a significant increase in depression as measured by the adjective checklist following the subliminal aggressive stimulus, but not following the control stimuli. However, no change was found on the amount of inward-aggression on the Rorschach, and when compared with the controls, no significant differences were found. The control group demonstrated no significant changes following the subliminal aggressive stimuli. When comparisons were made between conditions for the suicidal subjects, it was found that there was more outward aggression following the supraliminal aggressive stimuli compared with the other conditions. Similarly, the controls scored higher on outward aggression following supraliminal aggressive stimuli when compared with subliminal aggressive stimuli. When compared with each other, the suicidal group demonstrated more hostility (as measured by the checklist) than the controls following the supraliminal aggressive stimuli.

In trying to explain the lack of a predicted difference between the suicidal subjects and the controls in terms of inward hostility following the subliminal aggressive stimuli, they reiterate that the control subjects were also psychiatric patients, and therefore may have been affected by this stimuli. However, the lack of any change in the measure within-group following this stimuli brings into question this explanation. One other problem with this study is that part of the directions involve the statement to subjects that: "I am interested in slight changes in mood that people experience over brief periods of time. Therefore, please indicate how much of these moods and feelings you experience now" (p. 163). The fact that they ask for change may have influenced subjects to respond differentially. Finally, we do not know the effects of the pictures used, and it is conceivable that they are conflict arousing in ways that are not expected (for example, two men walking together could generate sexual orientation conflicts), thereby confounding the results.

Slipp & Nissenfeld (1981) used this methodology with 48 depressed females, as measured by the BDI (no cut-off point was given). This stimulus used to arouse aggressive wishes was the same as that used in the previous

study. Another stimuli was "Mommy and I are one," along with a picture to two women merged like Siamese twins. This was believed to arouse fantasies of symbiotic merging, and was believed to resolve conflicts around loss or dependency. Finally, the authors wanted to explore the role of parental demands for achievement in depression. Subjects also therefore received the subliminal stimuli "Succeed for Mother" (or father, depending on which was the dominant parent pressuring for success), accompanied by a picture of an older woman (or man) standing behind and looking over the shoulder of a young woman at a desk. A second success-related stimuli was used ("Succeed for myself") and accompanied by a picture of a woman standing alone on a platform and speaking before an audience; this was assumed to be adaptation-enhancing, and therefore would lead to a lessening of depression.

Changes in depressive symptomatology before and after the presentation of the stimuli were assessed via an adjective checklist and the TAT, scored using the scales developed by Welch, Schafer, & Dember (1961) for depression and well-being. Also, post-test measures of self-esteem and self-object differentiation were obtained from an adjective rating scale (see Slipp & Nissenfeld [1981], for a more thorough discussion of the methodology).

The results demonstrated that only the symbiotic stimuli ("Mommy and I are one") brought about significant changes. It produced an increase in feelings of well-being on the TAT, and a trend toward heightened self-esteem on the self-concept scale. When the measures of mood were combined into a single measure of depression, it was found that the symbiotic stimuli significantly decreased the overall depression score. The authors were unable to explain their failure to replicate earlier findings from dissertations (see Slipp & Nissenfeld, 1981) on the increase in depression following aggressive stimuli, except that in previous studies the subjects were more disturbed. Therefore, perhaps the level of intensity of the aggressive conflicts were not strong enough to be affected by the subliminal stimuli. Also, as mentioned in regard to the previous study, the so-called neutral stimuli could conceivably be far from neutral. For example, the picture of a woman by herself talking to an

audience could possibly arouse dependency or loneliness conflicts, objective self-awareness fears, etc.

These results are in contrast to those of Oliver & Burkham (1982), who set out to extend the results of the dissertation by Nissenfeld (1979-- the results of which were later published in Slipp & Nissenfeld [1981], as just discussed). In the Oliver et al. (1982) study, 30 heterogeneously depressed female inpatients made up the subject pool. All of the patients scored at least 16 on the BDI. The stimuli used were: a baseline (neutral) stimuli ("Girls are looking") and three critical stimuli-- one control ("People talking"), and two symbiotic ("Mommy and I are one," and "Mommy loves me as I am"). They found no significant effects on a variety of projective tests, adjective checklists, and self-esteem measures for any of the independent variables. The investigators were unable to explain this failure to replicate the earlier findings of Nissenfeld (1979), although the small sample size created a relatively low power test of the hypotheses.

The last study discussed here which used this methodology was done by Newman and Hirt (1983). Their study attempts to extend the results of three doctoral dissertations which found that subjects' mood or self-esteem was decreased following the presentation of a subliminally aggressive stimuli. This previous research also found no change in the conscious expression of aggression. In the Newman and Hirt (1983) study subject's level of field articulation on coping with aggressive wishes was also examined. They propose that field-dependent individuals would be more likely to use introjection, as their ego-boundaries are weaker. Therefore, depression (thought to be in part related to introjection and dependency) would be more prominent in field-dependent persons. Also, field-dependent persons were proposed to show greater physiological response to aggressive wishes, due to their propensity for affective discharge.

Subjects were 60 undergraduates (30 male and 30 female), 32 of whom were field-dependent (according to the rod-and-frame test), and 28 of whom were field-independent. The measures used both before and after tachistoscopic presentation included the Differential Emotion Scale for

Depression (a self-report inventory), a self-perception question to measure self-esteem, and physiological measures (skin conductance and heart rate). The procedure used was similar to the previously discussed studies except that they used a verbal passage as a primer before the tachistoscopic presentation. One was "neutral" and the second contained a passage about two children's reactions to their mother's death. Subjects were asked to recall both passages to insure attentiveness. Half of the subjects received a "neutral" subliminal stimulus (the words "hike" or "swim") while the other half received aggressive stimuli (the words "attack" or "kill").

They found that there was a main effect for field articulation, but not for type of stimuli. Field dependent subjects revealed higher depression scores regardless of the stimuli presented. Although this finding appears to be in contrast with the psychoanalytic theory, subsequent analyses showed that this effect was attributable to differences in mood as shown on the self-report inventory such that field-dependent subjects demonstrated more distress and inner-directed hostility. No effects were found on the self-esteem measure. In terms of the physiological measures it was found that the response for field-dependent subjects was consistently greater on skin-conductance (demonstrating higher anxiety levels). A main effect for type of stimulus was also found, the response being greater for the aggressive stimuli.

One final methodology used to examine depression is the content analysis of dreams. Barrett and Loeffler (1992) scored the dreams of 20 depressed and 21 non-depressed female college students for anger, apprehension, sadness, and confusion. They found that the depressed subjects demonstrated significantly less anger, while results for sadness, apprehension and confusion failed to reach statistical significance.

In trying to reach any conclusions based on this review of the research examining the link between hostility and depression, one is immediately struck by the lack of consensus among theorists about what is in fact being studied, how to study it, etc. In an excellent review, Buss (1961) addresses many of the problems that have plagued the study of hostility. He begins with the basic and yet crucial problem of definition, and describes how the

terms aggression, hostility, and anger are often used interchangeably, even though they are not the same thing.[10] He describes aggression as: "...*a response that delivers noxious stimuli to another organism...*" (italics in original, p. 1); anger as a response with facial-skeletal and autonomous components (other theorists, for example Tomkins [1963], consider anger to be a primary affect); and hostility as: "...an attitudinal response that endures: *an implicit verbal response involving negative feelings (ill will) and negative evaluations of people and events"* (italics in original, p. 12). Obviously, the definition one chooses to use can greatly affect one's results, and yet most of the studies reviewed do not address this crucial point. This is important especially considering the psychoanalytic theory, which is primarily concerned with aggression turned against the self, and does not necessarily suppose increased hostility or anger towards others (See Cochrane [1975b], for a more thorough discussion of these issues).

Another of the major problems with many of the studies on hostility is that they do not consider inhibitions to acting out or displaying one's hostility or aggressiveness. Again, based on psychoanalytic theory one might expect a depressed individual to have excessive hostility or aggression but also to be very inhibited from expressing this (or at least turn it against themselves instead of directing it outward). Therefore, any instrument that does not take this into account is likely to be useless. Finally, another important aspect of hostility that is proposed in psychoanalytic theory, and has been ignored in most of the studies mentioned, is the direction of the hostility (inward or outward).

A review of the literature on hostility scales for TAT responses demonstrates just how variable this concept is. Hostility or aggression has been scored by: simple scales based on assigning "weights" for the hostile content (Stone, 1956; Murstein & Wheeler, 1959; Hafner & Kaplan, 1960; Beit-Hallahmi, 1971), scoring hostility as either overt or covert (Gluck, 1955), scoring the type, intensity, and directness of the expression of hostility (James & Mosher, 1967; Fiester & Siipola, 1972), and scoring both hostility and

[10] See Pedder (1992) for a review of psychoanalytic viewpoints on aggression.

punishment/guilt or other inhibitions to the expression of hostility (Mussen & Naylor, 1954; Lesser, 1958; Saltz & Epstein, 1963; Henry, 1981). It is clear that by using these different scales one would expect to get different results (see Buss, 1961, for a review of some of the earlier hostility scales).

Three scales which appear more adequate for testing psychoanalytic hypotheses were created by Purcell (1956), Jensen (1957), and Murstein (1968). Purcell (1956) scored TAT responses for aggressive content (both quantity and quality), anticipated punishment from both external sources (i.e. hero rejected) and internal sources (i.e. self-depreciation), as well as the remoteness of the aggression from overt behavior (taking into account place, level, object of aggression, time, and social context). Jensen (1957) created a system which assigned weights for aggressive content (with the hero as aggressor or victim), punishment, and defense against aggression (i.e. denial, rejection of an act, etc.). Finally, Murstein (1968) developed a scoring system by combining aspects of earlier systems. He came up with a scale which assigned a weight (1 to 5) for the hostile content (from Hafner et al., 1960), internal punishment and external punishment (from Purcell, 1956), and remoteness of hostile expression (similar to Purcell, 1956). Based on these scores he then came up with ratios of internal punishment to hostility, external punishment to hostility, internal punishment to external punishment, and remoteness of hostility to hostility.

Based on the problems discussed it is not surprising that one is unable to form any solid conclusions about hostility and depression based on this review of the literature. All that can be said for certain is that under certain conditions, the proposed relationships have been found, and sometimes quite rigorously. The present study will attempt to improve on previous methodology by using measures that are more explicit in what they attempt to assess, as well as taking into account both the direction and inhibition of the impulse.

Orality and Depression

The link between orality and depression has received very little empirical attention. Before examining what research has been done, a brief theoretical discussion is warranted.[11] The reason for this is that the term orality, oral fixation or oral character has (like hostility) accrued a wide range of definitions and characteristics over the years. This term was first used by Freud in his Three Essays on the Theory of Sexuality (1949, first published in 1905) to describe a stage of libidinal development. During this stage the main area for libidinal gratification was the mouth and oral cavity, and hence the name "oral stage." Since this initial theory, however, considerable changes and additions have altered the way that this term is used, and what it denotes. For example, Abraham (1924, as discussed above) split the oral stage into two substages, the oral incorporative and the oral sadistic. Later theorists, most notably Rado, began to move away from the libido or biologically centered description of orality. For Rado the concept of orality included not only pleasurable mouth sensations, but also other pleasurable feelings associated with feeding, for example security, warmth, and nourishment. Hirschfeld, Klerman, Chodoff, Korchin & Barrett (1976) take this idea a step further by proposing that: "The pleasure experienced at the mother's breast, including the security, warmth, and nourishment, are the precursors of the narcissistic gratification that is later experienced as self-satisfaction and self-esteem." (p. 377).[12]

Later theorists, such as Fenichel, added dependency to the attributes of the oral character, and today the concepts of orality and dependence are often used interchangeably (one sometimes hears the term "oral dependence"[13] used in this regard). Chodoff (1972) notes that this trend has continued in psychoanalysis, such that: "...for many psychoanalysts, not only those within the strict Freudian persuasion, the oral character has come to have lost its

[11] For a more extensive review of the psychoanalytic concept of orality, see Sandler and Dare (1970), or Mendelson (1974).

[12] Perhaps, then, it is the lack of this narcissistic gratification that is experienced as depression.

[13] Masling (1986) has found in his extensive research that only the concept of oral dependence, and not oral aggression, (as defined by Abraham [1927]) was able to predict overt behavior.

moorings in psychosexual and constitutional orality and to have become synonymous with exaggerated affectional and supportive needs and with traits expressing an excessive dependency" (p. 670).

Robertson (1979b) believes that this is how most analysts prefer to view this concept now, and there has been some empirical evidence which corroborates this. If one looks at the traits that have been found to hold reliably together under the heading "oral," one finds both actual mouth activities and interpersonal processes thought to stem from this stage. Gottheil (1965) and Gottheil and Stone (1968) found through factor analysis, for instance, that the oral traits dependency, passivity, and demandingness were correlated. Lazare, Klerman and Armor (1966) found passivity, dependence, and self-doubt to load on an "oral" factor. For the interested reader, Fisher and Greenberg (1985) have reviewed extensively the research in this area, and also come to the conclusion that there is a good deal of support for the notion of an "oral" cluster of character traits.

A good description of how the term is used most often today is that of Shave (1974): "The oral dependency needs have been described as being the most basic human needs, remaining so throughout life. The need to feel important, loved, wanted, needed and cared for represent the oral needs" (p. 311). Shave continues:

> This oral need of man is not left behind as a simple stage, proposed in Freudian theory, but becomes diffused and less obvious as emotional maturity is reached. Emotional maturity is reached when the individual has diffused his oral dependency needs in a great number of part objects that ensures emotional comfortableness, while the emotionally immature individual is dependent on too few part objects (p. 312).

It is this second type of person who, due to their excessive dependency needs on only one person, is prone to depression when confronted with an object loss. This idea may help to shed light on other research which has demonstrated the importance of social support in overcoming depression

(Oatley & Bolton, 1985; Harlow, Goldberg, & Comstock, 1991). Perhaps someone with social support has the necessary part objects as described by Shave.

I could find only five empirical studies which attempted to use content analysis or projective measures to examine directly the relationship between orality and depression.[14] There has been a good deal of research relating orality to a host of other disorders, and a summary of these studies can be found in Fisher and Greenberg (1985) and Greenberg and Bornstein (1988).

The first empirical study that attempted to examine the relationship between depression and orality was done by Wiener (1956). He used an oral content scale developed for the Rorschach to compare depressed patients with alcoholic patients (both of whom are assumed in psychoanalytic theory to be orally fixated). He hypothesized that the neurotic depressives would demonstrate more ambivalence and hostility than the alcoholics. The oral content scale consisted of finding all references of food objects, anatomy used in ingestion, eating or preparing food, use of the mouth, etc. These responses were further scored as either positive, neutral (the mouth is used for non-eating but non-hostile purposes), or hostile (i.e. devouring, biting).

Subjects were 27 (15 men and 12 women) patients diagnosed as passive aggressive character disorder with alcohol addiction and 15 (10 women and 5 men) patients diagnosed as neurotic depressives. The study did not explain how these diagnoses were obtained.

It was found that the depressive patients displayed more hostile and neutral oral responses, and less positive responses than the alcoholic patients (both groups produced a similar amount of oral responses overall). Within the depressive group, a similar amount of positive and negative oral responses were produced. This is what was expected based on the psychoanalytic theory of ambivalence about dependency needs. Unfortunately, due to the lack of a control group it is impossible to compare these results with non-disturbed individuals. Also, no reliability or validity information was given

[14] There has been some research which has used self-report measures to assess this relationship. Examples of studies in this area include Lazare, Klerman & Armor (1966), Paykel, Klerman & Prusoff (1976), and Alnaes & Torgersen (1991).

about the oral content scale.

An undergraduate honors thesis that attempted to examine this relationship was undertaken in this same year (Josephthal, 1956). Josephthal used the Blacky Test, a projective test designed to examine many aspects of psychoanalytic theory, and tested 20 hospitalized female depressives (determined by the diagnosis in their medical records), 20 hospitalized female non-depressives, and 17 non-hospitalized "normal" women. The Blacky protocols were scored according to Blum (1950), and the scoring was found to be quite reliable.

A Chi-square was used to examine the differences between the three groups in terms of the scoring categories of the Blacky Test. Based on an "eclectic" psychoanalytic theory, Josephthal predicted that the depressives would give more disturbed responses in the oral eroticism and oral sadism categories than the other two groups. More disturbance on the guilt feelings dimension for the depressives was also predicted.

Josephthal found that the number of differences obtained was not different from what would be expected by chance, so the results must be interpreted with caution. Regarding the specific hypotheses based on psychoanalytic theory, there was a decided lack of significant results, such that none of the hypotheses were confirmed. Furthermore, the pattern of results that were obtained appeared random and "meaningless."

In attempting to explain the lack of any significant results, Josephthal set out to examine the Blacky Test more thoroughly. He found, by comparing different groups of subjects, that the test did not show any differences in the amount of psychological disturbance between "normal" and "abnormal" (hospitalized) subjects. In order to explain this result he examined the hypothesis that the female subjects were not identifying with Blacky (the dog and "hero" in the cards) while telling stories. This hypothesis was based on the fact that the majority of subjects referred to Blacky as male. Analysis of specific responses demonstrated that in fact the subjects were not freely identifying themselves with Blacky, which led Josephthal to conclude that the test fails as a projective device for women.

Neuringer (1968) has discussed other research which also questions the test's validity for women. Due to this problem, Josephthal concluded that the original research question he set out to explore was not adequately addressed.

The third study was undertaken by Bornstein, Poynton and Masling (1985). Subjects were 417 male undergraduates, split into two samples (N= 276 and 141) based on time of testing. Two measures were used, the Depressive Experiences Questionnaire (DEQ), a 66 item self-report measure, and the Rorschach. Previous research using the DEQ has shown a three factor structure in this measure; factor one is labeled dependency, factor two is labeled self-criticism, and factor three is labeled efficacy (Blatt, D'Afflitti & Quinlan, 1979). The scoring system used for the oral content of the Rorschach was that of Masling (1986), originally developed in Masling, Rabie and Blondheim (1967). This measure scores both oral percepts (foods, food organs, food providers, activities of the mouth) and dependent percepts (supplicants, nurturers, gifts, gift givers and good luck).

They found that factor 2 (self-criticism) correlated significantly with the oral score for both samples, while factor one correlated significantly with the oral score only in the second sample. The overall DEQ score correlated significantly with orality in both samples. A separate analysis of each item of the DEQ showed that 16 of the items correlated with orality in the first sample, with 12 correlating in the second sample. When the samples were combined 19 items showed positive correlations. The authors conclude: "Although the correlations between individual items and orality, and between total DEQ score and orality are small and account for relatively little of the variance, the relationship is statistically quite dependable and stable, as shown by the consistent findings across two samples. We have thus demonstrated that orality and depression have common elements, as psychoanalytic theory had predicted..." (p. 247). They state that one reason for the relatively small correlations could be due to their use of a normal (not clinically depressed) population.

A study by O'Neill and Bornstein (1990) used the same oral scale as in the previous study to examine dependency and gender in 101 psychiatric

inpatients (39 men, 62 women). In addition to the Rorschach, all patients completed the MMPI. A median-split was undertaken on the oral scores, and the results demonstrated that orality was significantly related to depression for females, but not for males. However, further examination of the sample suggested that a greater proportion of the men versus women were alcoholic, possible leading to distorted depression scores.

The final study was undertaken by O'Neill and Bornstein (1991), and also used the Masling scale. They examined the relationship between orality and depression, as assessed by the BDI and the MMPI, in 40 psychiatric inpatients (20 male, 20 female) with a variety of diagnoses. In contrast to the previous study, they found that the predicted relationship between orality and depression was significant for males, but not for females. Unfortunately, they do not attempt to explain the discrepancy between this study and the previously mentioned paper (which they also authored).

The literature review also revealed relatively few oral content scales, which is not surprising considering the relatively small empirical literature in this area. In a study designed to test the relationships between infant feeding behavior and later adult personality traits, Thurston and Mussen (1951) developed a TAT scoring scheme for oral personality traits as defined by several theorists. These included needing to be ministered to, dependency, talking, craving to receive, pessimism, aggressive demands, as well as oral references (food, drink). No reliability information was given on this measure.

The previously mentioned study of Masling, et al. (1967) used a TAT measure of orality along with the Rorschach measure. This scoring scheme included oral dependent themes (passive dependence, asking for or receiving help, presence of parental figures or nurturers, food sources, food organs, food providers and objects, belief in good luck, magic, optimistic story endings, helplessness, loneliness or depression, mouth behavior) and oral sadistic themes (depriving others or being deprived, devouring figures and aggression, overwhelming figures, burdens, oral assault). This measure was reported to have adequate reliability. Furthermore, this measure has been used extensively (see Masling, 1986, for a review of studies using this

measure).[15]

Story (1968) developed a scoring scheme for free association material which rated the intensity of oral drive-implicating content. The categories, in order of descending weight, are as follows: mouth or throat activities; oral objects, mouth parts; attributes of oral object parts or foods, hunger, thirst, objects associated with receiving or giving; oral sadistic themes, protective figures giving or receiving, places where food is prepared or consumed, food containers, utensils, tobacco, abdomen and breasts; objects or activities referring in their modal sense to passivity, incorporation, dependency or oral sadism. The rational for the various weights was not given; however, the reliability reported was quite high.

Finally, orality has been measured in other studies using different methods, but none of these appeared to be as adequate in terms of content analysis for the present study as those already discussed (see Masling & Schwartz [1979] for a summary of studies using both projective and objective methods to assess orality).

In deciding on which scale to use for the present study,[16] it was believed that the scale of Masling was the best as it is the most theoretically germane and has been used extensively (Masling, 1986). However, this scale has never been used with psychotherapy transcripts. In fact, no studies which examine orality in psychotherapy transcripts were found. Although the present study used five minute verbal samples from psychotherapy sessions, it was thought that this scale would be amenable to data gathered in this fashion, and Masling (personal communication, 1991) also believed that the scale was applicable in these circumstances.

[15] A study by Whitson (1983, cited in Masling, 1986) found that scores derived from this measure had essentially no correlation with oral scores derived from the Lazare-Klerman-Armor Trait Scales, a self report measure. This highlights a problem often found in research, in which paper-and-pencil tests do not seem to measure the same thing as projective tests. Unfortunately, this discrepancy has not been addressed in terms of the oral scales.

[16] Considering the problems addressed above with regards to the Blacky Pictures Test, it was not considered for the present study even though it does have oral scales in its scoring scheme.

METHOD

The present study attempted to examine two of the variables which have been linked to depression by psychoanalytic theorists. As noted in the above review, the presence of inwardly-directed hostility is proposed by all of the "classical" theorists, as well as many ego-psychologists (e.g., Jacobson, 1971). The other characteristic noted by the early theorists is the presence of excessive oral or dependency demands. Although the theories of Abraham, Freud, and Rado are certainly not identical, these two variables were believed to be important by each of them. Therefore the hypothesis to be tested was that persons exhibiting depressive symptomatology would demonstrate greater inwardly-directed hostility and greater excessive dependency and orality than persons who are not experiencing depression. Although both hostility and orality have been studied in relation to depression, no examination of these variables in combination has been undertaken.

Subjects

The initial subject pool consisted of 564 psychotherapy clients that had been seen at the Michigan State University Psychological Clinic. The data used was collected for research purposes as part of an ongoing data collection effort. At the initial intake interview, all clients were offered the opportunity to participate in the research project in exchange for a discount on their psychotherapy fees. If they agreed, they signed a Research Consent Form (Appendix B). From this initial pool of subjects, 30 were chosen for the present study, as described below. Subject ages ranged from 19 to 60, with the average age being 31. Males averaged 29, with a range of 22 to 46, while females averaged 33, with a range of 19 to 60. Both SES and race were not reported, but the clinic is a low cost community agency which serves primarily low-income clients.

Measures

After agreeing to participate, all subjects filled out the Symptom Checklist (SCL-90-R, Derogatis [1983]- see Appendix C). This is a 90-item

symptom checklist developed for use with both clinical and "normal" populations, in which subjects rate their degree of experience with a number of problems (i.e "feelings of worthlessness") on a scale from 0 (not at all) to 4 (extreme). Derogatis (1983) describes it as a measure of "...current, point-in time, psychological symptom status..." (p. 4). The ninety items load on nine symptom dimensions (including one which measures depression) and a global severity index (GSI). This measure has been shown to have excellent reliability and validity in several studies (see Derogatis, 1983). Although it does not have formal validity scales, it does contain global measures which can aid in detecting individuals who either "fake good" or "fake bad" while responding.

The other measure used was the Hopkins Psychiatric Rating Scale (HPRS- see Appendix D), a scale made up of the nine symptom dimensions of the SCL-90-R. This was filled out by an advanced trainee during the intake interview, who rated the client on each symptom dimension on a seven-point scale (from 0 [none], to 6 [extreme]). The use of this along with the client's self-reported symptomatology avoids the problem of relying entirely on self-report data to assess depression (Lewinsohn & Teri, 1982; Kagan, 1988).

Participants' scores on the SCL-90-R and the HPRS were used to assess level of depression. Derogatis (1983) states that the SCL-90-R has been used and researched as a screening measure for assessing psychiatric disorders. This research has lead to the development of a formula for assessing the "caseness" (the value or score on the measure that serves to define a positive case) of a particular participant, such that "...if the respondent has a GSI score (on Norm B, the non-patient norm) greater than or equal to T-score 63, or any two primary dimension scores are greater than or equal to T-score 63, then the individual shall be considered a positive diagnosis or case" (p. 28). This formula has provided "...acceptable levels of sensitivity and specificity across several populations. The definition presented (above) has been developed via detailed comparisons of large samples of psychiatric patients and non-patient cohorts..." (p. 28).

The Gottschalk-Gleser Hostility Scales (Gottschalk, Gleser & Springer, 1963; Gottschalk & Gleser, 1969-- Appendix E) and the orality scale of Masling (Masling, 1986-- Appendix F) were used to assess levels of hostility and orality (both of these measures will be discussed more fully below). The data consisted of transcripts of three five-minute segments from the first and third psychotherapy sessions of each subject. The first and third sessions were chosen because I wanted to assess the subject's psychological condition at the beginning of therapy, before any possible treatment effects might have occurred. Three different segments were used in an attempt to assess more stable (trait) characteristics of the subjects. Although the Gottschalk-Gleser scales were originally developed to tap transient feelings, Gottschalk (1986a) states that "...affect scores derived from three or more five-minute verbal samples... approximate trait measures in the sense of providing a measure of the relatively unvarying central tendency of a psychological characteristic" (p. 44). Gottschalk et al. (1969) have offered some evidence for the validity of this assumption. For the final scores, the average score of these three segments was used.

The first five-minute sample was taken from the beginning of the first session, at the point in which the client began describing the circumstances which brought him/her into psychotherapy (for the most part this constituted the very beginning of the session, but if the therapist began by explaining ground rules, etc., the sample began when the client began to "tell their story"). The second sample was taken from a period towards the end of the first session. Specifically, it was taken when the tape counter read "600." The third segment was taken from the third session, at a point when the tape counter read "400." Although this procedure does not guarantee a similar amount of data (words) for each subject (due to speed of speech, amount that the therapist speaks, etc.), the scales include a formula which takes into account the number of words in the transcript when calculating the magnitude of each affect.

Once these transcripts were obtained the verbal material was scored using the Gottschalk-Gleser Scales (Gottschalk et al., 1969; Gottschalk,

Winget, & Gleser, 1969). After extensive review of the literature these scales were chosen as they are the most pertinent to the variables under question, as well as being the only scales which are theoretically coherent with certain aspects of psychoanalytic theory. In addition, they have been extensively researched and demonstrate satisfactory reliability and validity, as well as having published norms (Gottschalk et al., 1969; Gottschalk, 1979; Gottschalk, 1986a). Furthermore, directions for using these scales have been published in a thorough and understandable manual, which allows for their use with (psychoanalytically) non-sophisticated raters (Gottschalk, Winget, & Gleser, 1969). Finally, a computer scoring system has been developed for these scales and has been found to be as effective as hand scoring (Gottschalk, Hausmann, & Brown, 1979; Gottschalk & Bechtel, 1982; Deffner, 1986; Gottschalk & Bechtel, 1989).

The Gottschalk-Gleser Scales are verbal content analysis scales, and as such share certain underlying assumptions and theoretical aspects with other content analysis methods. A full discussion of the verbal content analysis method is beyond the scope of the present work, but some of the underlying assumptions are addressed in Lolas (1986) and Viney (1986). The basic reason for using verbal analysis is that language is believed to reflect certain psychic structures and states. Lolas (1986) states that: "As the locus of intersubjectivity, language behavior not only permits inferences about individuals, it also shows the societal dimensions of the mind by relating inner experience to overt behavior" (p. 18). Lolas summarizes the main assumption underlying language behavior as such: "Our main contention is more an axiom than a theorem: there is a link between communicative structures and psychic structures" (p. 19).

The most concise description of the reasoning behind the use of verbal content analysis comes from Gottschalk and Lolas (1986), in which they state that:

> the words people choose to express themselves reveal significant information about how they are feeling and

> thinking. That words may mask genuine feelings and thoughts is not incompatible with the validity of content analysis as a measurement method. Even when words are used to cover up mental experiences or to deceive, content analysis may help elucidate the genuine subjective state of the individual. And whereas the reliability of assessing mental processes through the analysis of verbal communication reaches a convincing level of significance, the assessment of mental processes based on non-verbal communication is fraught with low reliability (p. 83).

The Gottschalk-Gleser scales were originally developed for use with samples of speech gained through free-association, which is then tape recorded and scored on three hostility scales. These scales are based on "psychoanalytic, linguistic, and learning theory principles," and are the most sophisticated and comprehensive verbal content scales available. Due to their psychoanalytic perspective, one of the advantages of these scales over those previously discussed is that they attempt to take into account repressed affect and defensive and adaptive mechanisms in the speech content. Gottschalk et al. (1969) state that "We assume that the verbal content of spontaneous speech, like dream content, contains the workings of primary and secondary process thinking..." (p. 16). However, these scales are not tied to any theoretical position, as Gershon, et al. (1968) state in their study which utilizes these scales:

> In this discussion, we have avoided the metapsychological problems of the relationship of hostility as a feeling or impulse to aggression as a primary instinctual drive. The initial formulations concerning the role of hostility in depression anteceded the development of Freud's theory of the dual instincts of libido and aggression. The way in which hostility has been defined and measured in this study is similar to the usage found in the hypotheses of Freud and Abraham, which were phrased in terms of hostility as a feeling-state (p. 234).

Another advantage of these scales is that they take into account the

direction of hostility, an important psychoanalytic variable (especially in the study of depression). The three scales are labeled the Hostility Directed Outward Scale (HDO), the Hostility Directed Inward Scale (HDI), and the Ambivalent Hostility Scale (AH). The HDO Scale measures: "...the assaultive and angry impulses and feelings that a person is aware of and can describe in various self-report test procedures." (Gottschalk et al., 1969, p. 158). This scale is further divided into covert and overt hostility. The AH Scale includes aspects of both outward and inwardly-directed hostility; however it has been shown in past research to be different enough from the other two scales to warrant discrete classification. Basically it measures statements by the speaker concerning hostility directed towards him/her from the outside world.[17] The HDI Scale measures "...transient and immediate thoughts, actions, and feelings that are self-critical, self-destructive, or self-punishing" (Gottschalk, Winget & Gleser, 1969, p. 93). A concise description of these scales can be found in Gottschalk, et al., 1963.[18]

Although the scales were developed for use with five minute verbal samples, a good deal of research has used these scales with psychotherapy transcripts, and they have been found to be valid when used in this manner (see Rubin [1986] for a discussion of studies using these scales with psychotherapy transcripts). Furthermore, Gottschalk (1986b) recommended the use of his scales with psychotherapy transcripts, and they have been recommended for use in this way in an NIMH report (see Kiesler, 1975).

Once the transcripts were scored for hostility, they were scored by myself and two upper-level undergraduate psychology students for oral content using the Masling Scale (1986). The students underwent extensive training in the use of this scale, and were blind as to the purposes of the study and the status of the subjects (I was blind to the depression scores of the participants).

The orality scale was first outlined in a paper by Masling et al. (1967).

[17] It should be pointed out that this definition of ambivalence is not in line with ambivalence as described by Freud, Abraham or Rado.

[18] Gottschalk & Hoigaard-Martin (1986) have recently used the same methodology and created a depression scale for use with verbal samples.

The definition of oral dependence and oral sadism was derived from Schafer (1954). Masling, following Abraham, divided oral responses into oral dependent and oral sadistic categories. The oral dependent responses included food sources, food providers, passive food receivers, food organs, supplicants, nurturers, gifts, gift givers, and good luck symbols. The oral sadistic responses included devouring, fighting or killing, overwhelming figures, figures which deprive, deprivation, faulty oral capacity, oral assault, and burdens. In this first study he used both the Rorschach and the TAT as stimuli for the responses. However, only the Rorschach was used in the later studies.

After the first series of studies were conducted using this scale, Masling found that "...the oral aggressive phase was difficult to differentiate from the second of Abraham's anal stages-- the anal-sadistic. More to the point, it did not predict anything. Only the oral-dependent concept seemed able to predict overt behavior" (Masling, 1986, p. 74). The scale has therefore since been altered and now only scores oral dependent responses, such that "...the operational definition of the concept includes references both to activities and the organs of the mouth as well as to dependent and nurturant behavior" (p. 74).

The final version of the scale contains 15 content categories, including statements which deny oral material and statements which use baby-talk (The scoring guide can be found in Appendix F). In Masling's system, each oral response is scored "1," with a maximum score of 25. However, two changes were necessary in using this scale for the present purposes. First, since the amount of verbal material is likely to be highly variable (due to the speed with which subject's talk, etc.) it was proposed that a ratio of oral responses to total word count would be the best method of scoring. For example, a person who used 5 oral responses in a 100 word passage would get the same oral score as a person who used 50 oral responses in a 1000 word passage. Second, the upper limit of 25 was ignored.

Interscorer reliability has been assessed many times and "...has always been in the range of 89% to 95% agreement" (Masling, 1986). Furthermore,

the scale is relatively easy to master and can be used by inexperienced raters. The reliability was continually checked in the present study to insure similar reliability coefficients.

Finally, it should be noted that although the scoring scheme is simple and straightforward and can be scored objectively, it does ignore some data which might be quite relevant. As Masling (1986) stated: "The system is not designed to elicit the greatest amount of information from single subjects but to produce a meaningful score from a large number of subjects quickly and reliably." However, for the present purposes it appears to be the most relevant, as well as the most researched, scale available.

Design and Data Analysis

Based on the methodology described above, a pool of 30 subjects with a wide range of scores on the SCL-90-R was obtained. Because a relatively small sample size was being used, it was believed that a random sample of 30 subjects would likely not vary a great deal in terms of depressive symptomatology. Due to the lack of variance a true test of the hypotheses would be difficult. Therefore, for each gender, an attempt was made to get 5 subjects with a depression T-score of 70 or above (depressed), 5 with a T-score of 60-70, and 5 with a score between 50 and 60 (normal).[19] Scores were also checked on the global measures for evidence of "faking good" or "faking bad." Finally, in an effort to control for differences in the overall amount of pathology or severity, an attempt was made to insure that all subjects had a GSI T-score in the range of 50-70.

The HPRS was also be used so that measurement of depression was not based solely on the clients' self-report. An HPRS depression score of 4 or greater (along with the criterion stated above) was required for the "Depressed" subjects (those with a T-score above 70), a score of 3 was required for the "average" subjects, and an HPRS depression score of 2 or below was required for the "Non-depressed" subjects (those with a T-score

[19] The middle group was included here in order to avoid inflated correlations due to the use of extreme groups, a problem which can be avoided by including a moderate group (Shavelson, 1988).

under 60). Correlational analysis was used, as statistics such as ANOVA would afford less power in this design (Humphreys, 1978).

Hypotheses

Before addressing the specific hypotheses of this study, an important point with regards to the theory needs to be addressed. The classical psychoanalytic theory of depression, as described herein, is a multi-faceted and complex theoretical perspective on the etiology and maintenance of depression. It is therefore difficult (if not impossible) to fully test this theory. In order to adequately test this specific theory one would need to use subjects who had experienced some type of object loss, or repeated disappointments at the hand of a love object, during childhood. Furthermore, the study would have to address variables such as identification, ambivalence, introjection, and a host of other processes all of which pose serious problems for the researcher. Therefore, the present study was an attempt to examine some important correlates of this theory, without actually being a direct test of the theory.

Keeping this caveat in mind, the hypotheses were as follows:

1) There will be a positive correlation between inwardly-directed hostility and depression scores.

2) There will be a positive correlation between orality and depression scores.

3) Multiple regression analysis will establish that both inwardly-directed hostility and orality contribute to depression scores.

Although not actually hypotheses, three other points need to be addressed:

1) Although many of the theorists mentioned herein posit the presence

of "ambivalent hostility" in depression, the relationship between ambivalent hostility and depression was not assessed in the present study since the definition of ambivalence used in the Gottschalk-Gleser scales is different than that used by Abraham, Freud, and Rado. Furthermore, the relationship between depression and the other hostility measures was examined, although no directional hypotheses were made.

2) Although somewhat different results might be expected for males versus females, it is difficult to be specific in this regard due to past inconsistencies in the research. For example, Gottschalk et al. (1969) report more outward hostility for men than women, but no difference on inward hostility or ambivalent hostility. Also, they found that the relationship between inward hostility and depression was much stronger for women than for men. However, the study of Rubin et al., (1992) did not corroborate these results. They found that men and women did not differ in their expression of outward hostility, and that women were higher than men on inward hostility. Finally, the paper of Masling et al. (1979) describes differing results for males and females in many studies assessing orality. Therefore there were no specific hypotheses regarding possible gender differences; nevertheless, gender differences were examined using non-directional tests.

3) Aside from using traditional Fisherian tests of significance, confidence intervals were given for each correlation and beta-weight. The method used for this was derived from Hunter and Schmidt (1990), who believe that confidence intervals give more information about the precision of the sample values as point estimates than the dichotomous "yes-or-no" results of simple tests of significance (see also Cronbach, 1975). The other reason for utilizing confidence intervals was the low power of this study, due to the sample size of 30. According to Cohen (1992), assuming a medium effect size (a correlation of about .30), a study using an alpha of .05 would need to have 85 subjects to have adequate power. The importance of power is that without it one runs the risk of failing to reject the null hypothesis when

it is in fact false. Although this is not a new concept, Sedlmeier and Gigerenzer (1989) state that most researchers still ignore the power of their tests, which, paradoxically, leads to a lower chance of obtaining significant results if there is a true effect.

The confidence intervals used in this study were a combination of the best case and the worst case one-sided 95 percent intervals, making a 90 percent interval. The following figure will demonstrate this technique, assuming a correlation (for example) of .24 between variable A and variable B.

FIGURE 1
Formation of confidence intervals

Best Case interval (one-sided 95 percent)--	$-.06 \geq 1.00$
Worst Case interval (one-sided 95 percent)--	$-1.0 \geq .54$
Combined interval (two-sided 90 percent)--	$-.06 \geq .54$

This figure reveals that, in this example, we can be 90 percent sure that the true correlation between variables A and B lies between -.06 and .54. The reason for using this type of interval was that it allows one to set a constant error rate, instead of dealing with the often very large beta (type II) error which plagues much research (Sedlmeier et al., 1989). The tradeoff for this is that, due to the large sampling variability, the intervals were quite large. When no directional hypotheses were made, the 95 percent interval was used.

Finally, aside from the correlation and confidence interval, the inference probability and odds ratio were reported to give further information about the strength of the relationships. The inference probability is defined as the probability that the correlation is greater than zero (or less than zero, if the

correlation is negative). The odds ratio is calculated by dividing the inference probability by 1 minus the inference probability. It gives the odds that the correlation is not zero.

RESULTS

Reliability

The alpha reliability of the SCL-90-R depression scale was assessed and found to be quite adequate (alpha = .90). The hostility scales were all scored using the computer scoring scheme of Gottschalk and his associates. This scoring system has been found to have adequate coding reliability, and is immune to the problems of rater inconsistencies, biases, etc. However, it is difficult to interpret stability because affects, by definition, are expected to be rapidly changing. Therefore, one might expect low test-retest reliabilities, even though Gottschalk et al. (1969) believe that using three or more speech samples will allow one to approximate a trait measure of hostility. Schöfer et al. (1979) assessed reliability using a split-half procedure, and found correlations for all of the scales to be about .50. Table 1 gives the correlations between different speech samples for inward hostility and orality.[20]

TABLE 1
Intercorrelations between verbal samples for inward hostility and oral scores

Inward hostility	HIN1	HIN2	HIN3
HIN1	1.000		
HIN2	-0.061	1.000	
HIN3	.171	-.008	1.000

Orality	ORAL1	ORAL2	ORAL3
ORAL1	1.000		
ORAL2	.393	1.000	
ORAL3	.352	.114	1.000

This table demonstrated that there was a great deal of variability in both scores, suggesting that they are in fact measuring a more "state" characteristic. In order to assure reliable measurement of orality, three raters

[20] Intercorrelations for the hostility-out scales can be found in Table 2 of Appendix G.

were used, all of whom had extensive training in the use of this scale. When 90% inter-rater reliability was achieved, all transcripts were scored by all three raters. For the final score, only those words agreed upon by all three raters were used, to ensure even greater reliability (inter-rater reliability was therefore not calculated). Therefore, the high variability demonstrated was somewhat disappointing, in that the aforementioned problems with the hostility scales might be expected to be absent with the oral scale, which is measuring orality, a supposedly more stable personality characteristic. In this sample, then, the oral scale appears to be measuring a more state based characteristic which is quite variable. In order to approximate the more stable underlying personality characteristic, the average of the three scores was used (Spielberger, 1966).

Descriptive statistics:

Table 3 contains the descriptive statistics for all of the major variables, including DEPRESS (depression score), GSI (Global Severity Index), HSCORE (Hopkins rating), HOTOT (total hostility-out), HOOVE[21] (overt hostility-out), HOCOV (covert hostility-out), HIN (hostility-in), and ORAL (oral score).

TABLE 3
Descriptive statistics

	DEPRESS	GSI	HSCORE	HOTOT	HOOVE
MEAN[22]	19.400	0.981	2.900	1.416	0.559
STANDARD DEV	11.581	0.447	1.626	0.193	0.122
MEDIAN	19.000	1.100	3.000	1.403	0.533

	HOCOV	HIN	ORAL
MEAN	1.297	0.548	0.017
STANDARD DEV	0.202	0.150	0.009
MEDIAN	1.282	0.562	0.016

[21] As a quick check of the convergent validity of this scale, hostility scores were correlated with the hostility scale from the SCL-90-R. This scale correlated .42 with HOOVE, and only .02 with HOCOV, as would be expected.

[22] Gottschalk et al. (1969) provide tables to compare means with their original normative sample. Using this table, the means of the present study put these subjects in the 60-70th percentile for hostility-in, the 80-90th percentile for total hostility-out, the 50th percentile for overt hostility-out, and the 90th percentile for covert hostility-out.

As a function of the sampling technique, in which an attempt was made to get subjects with a wide range of depressive symptomatology, depression scores were bi-modally distributed, and therefore a median split was undertaken in order to dichotomize depression scores. Point-biserial correlations were then used to analyze the relationship between depressive symptomatology (as measured by the SCL-90-R), inward and outward hostility (as measured by the Gottschalk-Gleser Scales), and orality (as measured by the Masling scale). Due to the artificial median split that was undertaken, each correlation was divided by .8 in order to correct by 20% (Hunter et al., 1990).

An attempt was also made to correct all correlations for attenuation due to measurement error, according to the formula of Hunter et al., (1990--see Figure 2).

FIGURE 2
Formula for correcting for attenuation

$$r_{xy\ \text{corrected}} = r_{xy\ \text{observed}} \Big/ \sqrt{r_{xx}\, r_{yy}}$$

r_{xx} = reliability of variable x
r_{yy} = reliability of variable y

Unfortunately, the variability of most of the scales was such that correcting for attenuation was not applicable. Therefore, the only corrections which were undertaken were for correlations with DEPRESS; all other correlations were uncorrected.

Table 4 gives the corrected correlations below the diagonal and the original correlations above.

TABLE 4
Correlation matrix for all variables

	DEPRESS	GSI	HOTOT	HOOVE	HOCOV	HIN	ORAL
DEPRESS	**1.000**	0.888	0.073	0.196	0.031	0.183	-0.074
GSI	1.000	**1.000**	0.047	0.067	0.030	0.059	-0.029
HOTOT	0.096	0.047	**1.000**	0.161	0.969	0.473	0.054
HOOVE	0.258	0.067	0.161	**1.000**	-0.035	0.234	0.197
HOCOV	0.041	0.030	0.969	-0.035	**1.000**	0.420	0.035
HIN	0.237	0.059	0.473	0.234	0.420	**1.000**	0.056
ORAL	-0.097	-0.029	0.054	0.197	0.035	0.056	**1.000**

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL= oral score.

As can be seen from this table, there was a very large correlation between depression scores and GSI. Although an attempt was made to use subjects who had variable depression scores but similar GSI scores, this was not possible. As might be expected, those subjects with significant levels of depression also tended to have high levels of other symptomatology, as reflected by this correlation.

Hypotheses

In order for the most information to be given regarding the hypotheses, 90 percent confidence intervals were reported for each of the hypothesized relationships, as well as the inference probability and the odds ratio, as described above. Significant correlations are those in which zero is not in the interval.

Hypothesis #1-- There will be a positive correlation between inwardly directed hostility and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
.24[23]	$-.06 \leq p \leq .54$	.91	10.1/1

[23] This is the corrected correlation, as are all following correlations and beta weights which involve depression.

Although this correlation failed to reach traditional significance, the inference probability demonstrated that in all likelihood the true correlation was not zero, and more than likely it was positive.

Hypothesis #2-- There will be a positive correlation between orality and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
-.10	$-.39 \leq p \leq .20$	.71	2.4/1

This hypothesis was not corroborated, as shown by the extremely low correlation and odds ratio.

Hypothesis #3

The third hypothesis predicted that using multiple regression analysis, depression scores would be significantly related to orality and inwardly-directed hostility. These results are found in Table 5, including 90 percent confidence intervals and inference probabilities for the beta weights and the multiple correlation.

TABLE 5
Regression equation for depression scores on inward hostility and orality

	Beta	Confidence Interval	Standard Error	Inf. Probability
HIN	.243	$-.046 \leq \beta \leq .532$	.176	.92
ORAL	-.111	$-.413 \leq \beta \leq .191$	.184	.73
$R = .26$		$-.02 \leq R \leq .54$	.17	.94

This hypothesis received marginal support, although the multiple correlation just failed to reach traditional significance levels. The inference probability suggests that the true multiple correlation was not zero.

Although no direct hypothesis was made, multiple regression was performed using each of the independent variables in order to assess their influence on depression scores. Because HOTOT is made up of HOCOV and HOOVE, HOTOT was not included in this equation to avoid problems of multicollinearity. These results are found in Table 6, using 95 percent confidence intervals.

TABLE 6
Regression equation for depression scores on orality and overt, covert, and inward hostility

	Beta	Confidence Interval	Standard Error	Inf. Probability
HOOVE	.238	$-.067 \leq \beta \leq .543$	.186	.90
HOCOV	-.033	$-.374 \leq \beta \leq .308$	.208	.56
HIN	.202	$-.133 \leq \beta \leq .537$	.204	.84
ORAL	-.154	$-.462 \leq \beta \leq .154$	.188	.79
R = .35		$.07 \leq R \leq .63$	.17	.98

This table demonstrated that this multiple correlation was significant, suggesting that this model fits the data well. In this model overt and inward hostility accounted for most of the variance.

The relationship between depression scores and the other hostility scales was undertaken using 95 percent two-sided intervals, as no directional hypotheses were made. These results are shown in Table 7, found in Appendix G.

Insert Table 7 about here

Only the correlation between depression and overt hostility approached

significance, as demonstrated by the inference probability of .92.

Further examination of Table 4 revealed three other significant correlations. The first was between total outward hostility and covert hostility (r = .97). This is to be expected, as total outward hostility is made up of the sum of covert and overt hostility. Since overt hostility did not correlate significantly with total outward hostility, in this sample HOTOT was more related to HOCOV than to HOOVE. The second significant positive correlation was between total outward hostility and inward hostility (r = .47), and the third was between covert hostility and inward hostility (r = .42). This demonstrated that in this sample outward hostility (especially covert) was positively related to inward hostility.

Gender Differences

In order to assess the importance of gender, correlations were undertaken between each of the variables and gender. The results were all displayed using two-tailed 95th percentile confidence intervals, as shown in Table 8.

TABLE 8
Correlations between gender and all variables

	r	Confidence Interval	Inf. Probability	Odds Ratio
Gender and ORAL	.49	$.22 \leq p \leq .77$	1.00	NC
Gender and HIN	.43	$.14 \leq p \leq .73$	1.00	NC
Gender and HOTOT	.19	$-.16 \leq p \leq .54$	.85	6/1
Gender and HOOVE	.05	$-.32 \leq p \leq .42$	.60	1.5/1
Gender and HOCOV	.16	$-.19 \leq p \leq .52$	.82	4.5/1
Gender and DEPRESS	.26	$-.07 \leq p \leq .60$	.94	15.7/1
Gender and GSI	.26	$-.07 \leq p \leq .60$	.94	15.7/1

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL=oral score

As can been seen from these intervals, significant relationships were found between gender and orality and gender and inwardly-directed hostility. Also, the relationships between gender and total outward hostility, covert hostility, depression scores, and global severity approached significance, as demonstrated by the inference probabilities. In all of these cases women scored higher that men.

Because previous research has suggested that the relationship between hostility and depression might be different for men versus women (see above), each hypothesis was examined separately for each gender.

Males

The descriptive statistics for males are found in Table 9.

TABLE 9
Descriptive statistics for males

	DEPRESS	GSI	HOTOT	HOOVE	HOCOV	HIN	ORAL
MEAN	16.467	0.870	1.380	0.553	1.264	0.484	0.013
STANDARD DEV	10.710	0.452	0.127	0.131	0.126	0.128	0.005
MEDIAN	11	0.960	1.367	0.533	1.280	0.460	0.013

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL= oral score

Table 10 gives the correlation matrix for each of the variables for the males, using the same corrections as described above (corrected correlations are below the diagonal).

TABLE 10
Correlation matrix for all variables for males

	DEPRESS	GSI	HOTOT	HOOVE	HOCOV	HIN	ORAL
DEPRESS	**1.000**	0.848	0.558	0.226	0.548	0.203	-0.080
GSI	1.000	**1.000**	0.392	0.070	0.421	-0.155	-0.034
HOTOT	0.734	0.392	**1.000**	0.176	0.924	0.229	-0.308
HOOVE	0.300	0.070	0.176	**1.000**	-0.171	0.031	0.030
HOCOV	0.720	0.421	0.924	-0.171	**1.000**	0.211	-0.360
HIN	0.227	-0.155	0.229	0.031	0.211	**1.000**	-0.363
ORAL	-0.110	-0.034	-0.308	0.030	-0.360	-0.363	**1.000**

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL= oral score

Each hypothesis was examined for males, using 90 percent confidence intervals.

Hypothesis #1-- There will be a positive correlation between inwardly-directed hostility and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
.27	$-.07 \leq p \leq .61$	.90	9/1

Although this correlation failed to reach traditional significance levels, the confidence interval demonstrates that the true correlation was probably not zero, and more than likely it was positive.

Hypothesis #2-- There will be a positive correlation between orality and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
-.11	$-.52 \leq p \leq .30$	.67	2/1

This hypothesis was not corroborated, as shown by the extremely low correlation and odds ratio.

Hypothesis #3

The third hypothesis predicted that using multiple regression analysis,

depression scores would be related to orality and inward hostility. As might be expected due to the previous findings, this hypothesis was also not corroborated, as demonstrated by Table 11. However, the inference probability of the multiple correlation was at the 90th percentile, suggesting that the true multiple correlation was not zero.

TABLE 11
Regression equation for depression scores on orality and inward hostility in males

	Beta	Confidence Interval	Standard Error	Inf. Probability
HIN	.311	$-.119 \leq \beta \leq .741$	.262	.88
ORAL	.003	$-.464 \leq \beta \leq .470$	.285	.05
R = .31		$-.08 \leq R \leq .70$	.24	.90

Although no directional hypothesis was made, multiple regression was performed using each of the independent variables in order to assess their influence on depression scores. These results, using 95 percent confidence intervals, are found in Table 12.

TABLE 12
Regression equation for depression scores on orality and covert, overt, and inward hostility in males

	Beta	Confidence Interval	Standard Error	Inference Probability
HOOVE	.430	$.00 \leq \beta \leq .87$	.268	.95
HOCOV	.841	$.493 \leq \beta \leq 1.0$	.212	1.0
HIN	.213	$-.228 \leq \beta \leq .654$	.269	.79
ORAL	.257	$-.258 \leq \beta \leq .772$	.314	.79
R = .88		$.63 \leq R \leq 1.0$	.15	1.0

This table demonstrated that the regression model fit the data well, with both overt and covert hostility accounting for most of the variance.

The relationship between depression scores and the other hostility scales in males was undertaken using 95 percent intervals, as shown in Table 13 of Appendix G.

Insert Table 13 about here

As demonstrated by these intervals, for men there was a significant relationship between depression scores and outward hostility, especially covert. The relationship between the different scales was also examined, using 95 percentile confidence intervals. These results can be found in Table 14 of Appendix G.

Insert Table 14 about here

These intervals demonstrated that for men there was a significant negative relationship between covert hostility and orality, and the other correlations, although not statistically significant, are more than likely not zero.

Females

The same analyses were undertaken for females as for males. The descriptive statistics are found in Table 15.

TABLE 15
Descriptive statistics for females

	DEPRESS	GSI	HOTOT	HOOVE	HOCOV	HIN	ORAL
MEAN	22.33	1.093	1.451	0.565	1.329	0.612	0.021
STANDARD DEV	12.028	0.397	0.242	0.117	0.257	0.147	0.010
MEDIAN	25.00	1.300	1.497	0.560	1.377	0.643	0.020

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL= oral score

In order to examine each of the main hypotheses, point-biserial correlations were used, and the matrix is found in Table 16, with corrected correlations below the diagonal.

TABLE 16
Correlation matrix for all variables for females

	DEPRESS	GSI	HOTOT	HOOVE	HOCOV	HIN	ORAL
DEPRESS	**1.000**	0.928	-0.234	0.150	-0.271	0.026	-0.278
GSI	1.000	**1.000**	-0.239	0.039	-0.258	0.029	-0.296
HOTOT	-0.310	-0.239	**1.000**	0.168	0.980	0.558	0.021
HOOVE	0.200	0.039	0.168	**1.000**	0.031	0.457	0.314
HOCOV	-0.360	-0.258	0.980	0.031	**1.000**	0.490	0.019
HIN	0.034	0.029	0.558	0.457	0.490	**1.000**	-0.143
ORAL	-0.370	-0.296	0.021	0.314	0.019	-0.143	**1.000**

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL= oral score

Hypothesis #1-- There will be a positive correlation between inwardly-directed hostility and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
.03	$-.39 \leq p \leq .46$	.55	1.2/1

As can be seen from the confidence interval, this correlation was essentially

zero, and did not corroborate the hypothesis.

Hypothesis #2-- There will be a positive correlation between orality and depression scores.

r	Confidence Interval	Inference Probability	Odds Ratio
-.37	$-.68 \leq p \leq -.06$	.97	32.3/1

This hypothesis was not corroborated, and was in fact refuted by the significant negative correlation.

Hypothesis #3

The third hypothesis predicted that using multiple regression analysis, depression scores would be significantly related to orality and inward hostility. The results of this analysis are found in Table 17.

TABLE 17
Regression equation for depression scores on orality and inward hostility in females

	Beta	Confidence Interval	Standard Error	Inf. Probability
HIN	-.019	$-.462 \leq ß \leq .424$	.270	.53
ORAL	-.373	$-.756 \leq ß \leq .011$	.234	.94
R = .37		$-.01 \leq R \leq .75$	.23	.94

Although the multiple correlation failed to reach traditional significance levels, it was quite large and more than likely not zero.

Although no directional hypothesis was made, multiple regression was performed using each of the independent variables in order to assess their influence on depression scores. These results are found in Table 18.

TABLE 18
Regression equation for depression scores on orality and covert, overt, and inward hostility in females

	Beta	Confidence Interval	Standard Error	Inf. Probability
HOOVE	.386	$-.198 \leq \beta \leq .97$	.356	.86
HOCOV	-.340	$-.835 \leq \beta \leq .155$	.302	.87
HIN	-.046	$-.704 \leq \beta \leq .612$	.401	.55
ORAL	-.491	$-.96 \leq \beta \leq .-.02$	.286	.96
R = .62		$.28 \leq R \leq .96$	.21	1.0

This table demonstrated that this regression model fit the data well, with orality accounting for most of the variance.

The relationship between depression scores and the other hostility scales for women was undertaken using 95 percent intervals, as no directional hypotheses were made. These results are found in Table 19 of Appendix G.

Insert Table 19 about here

These intervals demonstrated that for women there was a significant negative relationship between depression scores and covert hostility.

The relationship between the hostility and oral scales was also analyzed, and the results are found in Table 20 of Appendix G.

Insert Table 20 about here

This table demonstrated significant relationships between outward hostility

(both overt and covert) and inward hostility, as well as a substantial (although not significant) relationship between orality and overt hostility.

In order to further examine these gender effects, correlations for women versus men were examined to see if they differed significantly. Table 21 gives the difference between the correlations for males versus females on each variable, as well as the 95 percent confidence interval.

TABLE 21
Differences between correlations for males versus females

	difference	Confidence Interval	Inf. Probability	Odds Ratio
DEPRESS and HIN	.24	$-.41 \leq p \leq .88$	.76	3.2/1
DEPRESS and ORAL	.26	$-.37 \leq p \leq .89$	.79	3.8/1
DEPRESS and HOTOT	1.00	$.53 \leq p \leq 1.00$	1.00	NC
DEPRESS and HOOVE	.10	$-.51 \leq p \leq .71$	.63	2.7/1
DEPRESS and HOCOV	1.00	$.55 \leq p \leq 1.00$	1.00	NC
HIN and HOTOT	.33	$-.14 \leq p \leq .80$	.92	12.5/1
HIN and HOCOV	.38	$-.11 \leq p \leq .87$	.94	15.7/1

DEPRESS=depression score, GSI=Global Severity Index, HOTOT=total hostility-out, HOOVE=overt hostility-out, HOCOV=covert hostility-out, HIN=hostility-in, ORAL=oral score

This table demonstrated that the relationship between outward hostility and depression scores, especially covert, was much stronger for males versus females. Furthermore, the relationship between inward hostility and outward hostility (especially covert) is stronger for females than males, although this difference just failed to reach traditional significance levels.

DISCUSSION

This study attempted to examine the relationship between depressive symptomatology and orality and hostility. It was hypothesized, based on selected themes found in psychoanalytic writings on depression, that subjects with higher levels of depression would exhibit greater hostility directed against the self and greater orality. The following discussion will first examine issues of scale variability, and problems with the methodology will also be addressed. Next, the results will be examined, and put in the context of other research in this area. Finally, the relevance of these results for theory and future research will be evaluated.

In order to gain a full understanding of the results of this study, a number of issues regarding the scales and the methodology need to be addressed. Perhaps the biggest problem encountered in this study was with the high variability of the scores over different times. Each scale will be addressed separately below.

Hostility Scales

Perhaps the major assumption in using the Gottschalk-Gleser scales in the present context was that the use of three five minute samples would give an adequate estimate of the "traits" in question. This question has been addressed before, and Gottschalk (1986a) states that three samples is adequate for all of their scales except perhaps hostility-out (especially for males), as the generalizability is lower. However, it appears from these results that this assumption might be questioned, as all of the scales demonstrated high variability over time (low generalizability was also found by Gershon et al., 1968; Schöfer, et al., 1979). Because the final score used in this study was an average of the scores for the three segments, it was obviously affected by high variability. These results highlight an important issue regarding reliability, and one that is often overlooked in current research. Most researchers are well-aware of inter-rater reliability, and are usually diligent in

reporting this in their studies. However, test-retest reliabilities are often ignored. For example, the previously mentioned study of Lemaire et al. (1981), assessed hostility repeatedly over a six week period, but did not address test-retest reliability. Because these scales were not necessarily designed to have high test-retest reliabilities, this issue is often ignored, but it seems to be an important area that will need to be examined in the future so that a better understanding of what these scales are actually measuring can be determined. Based on this study, the use of these scales as "trait" measures appears to be questionable.

This problem also highlights the state-trait issue regarding affects such as hostility.[24] Researchers in the area of affect usually accept their transient nature, but often describe these transient states as being affected by some underlying "trait" for that certain affect. For example, Spielberger (1966) hypothesized that these transient states would be influenced by "differences between individuals in the probability" that the states would be manifested under varying circumstances. While this may certainly be true, it seems from the present study that perhaps more samples are needed to in fact begin to tap into this "probability."

Before dismissing the use of three segments to assess more enduring personality characteristics, the specific use of these scales in the present study needs to be addressed. Although these scales have been recommended for use with psychotherapy transcripts (Gottschalk,1986b; Kiesler, 1975), this is not the way they were originally designed to be used. The actual methodology entails a subject being told to "talk about any interesting or personal life experiences you have had." One fact which becomes immediately obvious is that this is a much more standardized situation in contrast to a psychotherapy session. Furthermore, in the original methodology experimenters are instructed to say very little to the subject, and simply let them talk. This too is quite different than many psychotherapy sessions, in which the therapist (especially depending on their theoretical bent)

[24] In fact, the whole issue of "traits" has become somewhat controversial lately, although this will not be addressed here (discussions can be found in Mischel, 1969; Ebel, 1974; Cronbach, 1975).

might speak and lead the client a great deal. In fact, examining the relationship between what the therapist says and the client's responses (and hostility scores) would seem to be an interesting road for future research.

One final point about these scales involves the issue of fully repressed hostility. As Gottschalk et al. (1969) mention, these scales are not necessarily able to measure fully repressed hostility, although they state that some of the defensive and adaptive mechanisms in language signal the presence of suppressed and repressed hostility. According to some theorists, however, it is this type of hostility which might lead to depression. As Klerman et al. (1970) point out, it remains an open question whether or not these scales are able to tap preconscious or unconscious hostility or aggression. They do appear to be, however, the best hostility scales available today, and they continue to be widely used. The question of repressed hostility in these scales, then, would seem to be an important question for future research. This problem applies to all hostility measures which I found, including those that have been developed for projective tests. It seems that the creation of a measure which might allow for a better test of the "repressed hostility" hypothesis is needed. And finally, as addressed earlier in regard to the ambivalent hostility scale, there is some question as to how similar the conceptualization of hostility is between these scales and Freud's and other's writings. This seems to be a problem in a good deal of research, in which the measures used are from a different theoretical background than what is being tested. In effect, this makes a true test of hypotheses very difficult (Meehl, 1978; Dar, 1987).

Orality Scale

As with the hostility scales, the Oral scores proved to be quite variable. This was especially noteworthy because orality, unlike hostility, might be assumed to be more stable trait than hostility (an affect), and therefore not vary all that much.[25] To my knowledge, the test-retest reliability of this scale

[25] Some variability based on the current state of the subject (for example, if they are hungry) might be expected to alter oral responses, however.

has never been assessed, because it has never been used repeatedly on the same subject. This would seem to be an important avenue for future work.

It should be pointed out, however, that the Oral scale (like the hostility scale) was used differently in this study than the manner for which it was developed. The standard procedure for using this scale is that subjects respond to a set of Rorschach cards, a situation that is much less variable than psychotherapy sessions. In this respect the same problems mentioned above in using the hostility scales for psychotherapy sessions hold true for the Oral scale. As this was the first study to use this scale with psychotherapy transcripts, more work is needed in this manner before any decision about their usefulness in this area can be established.

Another aspect of the Oral scale which seemed problematic is that it includes scoring of both the vicissitudes of the drives (an id- or libido-centered description), and object relations (a more ego-oriented approach). As mentioned earlier, most analysts today use the term "oral" to mean both psychosexual fixation and needs such as dependency, self-esteem, etc. (see Chodoff, 1972; Shave, 1974; Robertson, 1979b). Although factor analytic studies have corroborated this notion (Gottheil, 1965; Gottheil and Stone, 1968; Lazare, Klerman and Armor, 1966), this is not entirely in line with orality as described by Freud and Abraham. It also seems possible that this description is too broad to be meaningful in a study such as this. In this regard, Masling (1986) separated the total oral score into dependent responses (passive, nurturant, and supplicant images, as well as responses mentioning pregnancy and reproductive organs), and oral responses (food, food providers, food related content, oral activity, and digestive organs) for one study. The correlation between these two subscores was -.06, demonstrating that this scale is not homogeneous, and in fact seems to be measuring too different things.

Initially this separation seemed possible to do in this study. However, a quick subjective examination of the protocols revealed that certain subjects, who had an excessive amount of oral responses, may have been alcohol dependent because much of the sessions were spent discussing drinking.

Weiner (1956) demonstrated that alcoholics exhibit different levels and types of orality compared to depressives. Furthermore, the use of alcohol may serve to lower depression scores, thereby distorting the relationship between orality and depression (O'Neill & Bornstein, 1990). It is therefore possible that the negative correlation found between orality and depression scores for women in this study might have been in part due to the presence of alcohol dependent subjects, who might have lower depression scores combined with high oral scores. Future work examining the link between depression and orality will therefore have to account for the effect of alcohol or other addictive disorders.

Methodology

Certain methodological issues must also be taken into account in interpreting the results from this study. The first important issue relates to the sample. Much of the theoretical background for this study was from the psychoanalytic literature, which in many cases is based on what might be assumed to be a more disturbed population than in the present work. Mendelson (1974) points out that most of the early theory is predicated on what might be called "psychotic" rather than "neurotic" depressions. The sample in this study consisted entirely of outpatients, and might therefore be less disturbed than the population that much of this theory is based on. In terms of the issues involved, both Stone (1986) and Parkin (1976) believe that mild depression can be quite different psychologically than more severe depression in terms of the unconscious dynamics that accompany it (see also Bibring, 1953). There has also been some research which has suggested that the relationship between hostility and depression is different for more severe depression compared to mild depression (see below).

Another problem with the sample was that they were assessed only for depression, and therefore were probably quite heterogeneous on other personality characteristics which might interact with the variables in question (Cronbach, 1975). There is a growing body of evidence that there might in fact be many types of depression, each with its own symptom structure and

dynamics (Riley, Mabe & Davis, 1991; Blazer, Woodbury, Hughes, George, Manton, Bachar & Fowler, 1989; Gershon et al., 1968; Rosenthal & Gudeman, 1967; Rosenthal & Klerman, 1966; Hamilton et al., 1959). Some authors have begun to try to examine the personality structures of these different types of depression, as well as the effect of underlying personality disorders on depression (Alnaes et al., 1991), although many conflicting results have been reported (Overholser, Kabakoff, & Norman, 1989; Matussek & Feil, 1983; Paykel, Klerman & Prusoff, 1976; Lazare & Klerman, 1968). From a theoretical standpoint, this issue has been addressed by Freedman (1986), Arieti & Bemporad (1980), Basch (1975), and Blatt (1974). Blatt and colleagues have also been able to demonstrate some empirical evidence to back up their theory of two types of depression. In one study, they demonstrated that "depression that focuses on dependency may be characterized by different types of defenses [than depression based on self-critical attitudes]-- particularly denial and displacement-- rather than turning against the self in marked negative attitudes including self-criticism." (Blatt, Quinlan, & Chevron, 1990, p. 112). Factor analytic studies by Grinker, Miller, Sabshin, Nunn, & Nunnally (1961) demonstrated several independent factors in depression, one of which described a depression primarily concerned with experiences of deprivation and manipulation to obtain oral supplies, and another that focused on feelings of guilt and restitution. Finally, Westen and colleagues (Benjamin, Silk, Lohr, & Westen, 1989; Nigg, Westen, Lohr, Gold, & Silk, 1992) have explored the effect of underlying borderline personality disorder on depression. For example, Benjamin et al. (1989) found that depressed borderline patients exhibited more hostility, interpersonal sensitivity, and paranoia on the SCL-90-R than did pure depressed patients.

Although the effect of personality on depression (and vice versa) is still not well understood, its influence is unquestionable, leading to a great deal of heterogeneity under the heading of depression. As far back as 1917 Freud recognized this dilemma: "Melancholia, whose definition fluctuates even in descriptive psychiatry, takes on various clinical forms the grouping together of which into a single unity does not seem to be established with certainty"

(p. 243). This notion was addressed by Milrod (1988), who outlined three major types of depression. The first is based on a narcissistic injury which is the result of the "...self representation falling too far short of the goals and standards in the individual's wished-for self image" (p. 87). Milrod believes that this depression involves an *intrasystemic* process. A second type of depression is caused by the self-representation falling too far short of the "moral and ethical values built into the ego ideal," leading to guilt and superego punishment. He describes this type of depression as involving an *intersystemic* process. Finally, the third type "...occurs when an ambivalent love object continues to be the essential source of libidinal supplies for the self representation" (p. 86). Milrod believes that it is this third type that Freud was addressing in "Mourning and Melancholia," and he goes on to warn that: "Many authors have made the mistaken assumption that the same structure and the same dynamics apply to all depression. Some have even confused the dynamics of mourning with those of depression" (p. 87).

In this study other personality characteristics of the sample were not examined for two reasons.[26] First, the small sample size would have made any statistical tests of these subgroups impossible. Second, and perhaps more importantly, Chodoff (1972) has warned against assessing enduring personality characteristics during the period of illness, as this may affect what is uncovered.

Another methodological issue which may have affected the results of this study involved the use of the first few psychotherapy sessions. The initial sessions were used in order to minimize any treatment effects, but it is possible that this strategy might have obfuscated any possible results due to the "face-saving techniques" (Goffman, 1967) which are assumed to occur in the early stages of any relationship. In other words, it is possible that during the early stages of psychotherapy, clients are still concerned with how their therapists view them, so they might be less likely to reveal their dependent or

[26] Another area which was not able to be assessed was the presence of any manic symptoms, which could have affected the results. For example, Blackburn (1974) found more outward hostility for manics than depressives. Hirschfeld et al. (1979) found that manic patients exhibited less orality than either "normals" or depressed patients, while Alnaes et al. (1991) found that cyclothymic patients had a much greater level of orality than bipolar patients.

hostile impulses. This notion received some corroboration in the study of Weissman et al. (1971), which demonstrated that the depressed patient's behavior during initial interviews with a psychiatrist was quite different, and much less hostile, than her behavior outside the interview (it should be pointed out, however, that this is referring to behavior, and not verbal hostility scales). Other research (Leff, Roatch, & Bunney, 1970) has demonstrated that initial psychotherapy interviews did not always uncover the core conflicts which were behind the depressive episode. Finally, it is possible that at this early stage of therapy the client is feeling nurtured and taken care of, so they are not yet experiencing oral frustration.

Finally, this study did not address what the therapists said, which could certainly have had a major effect on what the client said. In this regard, gender of therapist/patient interactions were also not examined, although Gottschalk et al. (1969) have found them to be important.

Results[27]

Before addressing the specific hypotheses, the correlation between depression scores and global severity needs to be addressed. In designing this study, the aim was to get a sample with varying degrees of depression, but with similar global severity levels. This was to ensure that the results could be reasonably interpreted as being due to differing levels of depression, and not simply the subject's level of "sickness." As pointed out earlier, however, this proved to be impossible, as those subjects with higher levels of depression almost invariably had higher GSI scores. An examining of Table 4 reveals, however, that there were no significant correlations between GSI and any of the independent measures, and that each of these correlations was smaller than for the same measure and depression scores. Therefore, it seems reasonable to assume that any findings obtained for depression are not simply due to the severity of overall pathology.

The first hypothesis assumed a positive relationship between depression scores and inwardly-directed hostility. Although this correlation did not reach

[27] The reader is again referred to Appendix A for quick reference to previous research.

traditional levels of significance, it was in the expected direction and at the 91st probability level. This result is not unlike those found in work by Gottschalk et al. (1969) and associates. In their original validity studies for these scales they found the correlation between inward hostility and the BDI to be between .34 (outpatients) and .47 (inpatients). Gottschalk et al. (1979) found this correlation to be .37, and Schöfer et al. (1979), using a random non-patient sample in Germany, found a small but significant correlation between depression, as measured by the mood adjective check list, and inward hostility (.22). Lemaire et al. (1981) found that mildly depressed students demonstrated more inwardly-directed hostility than controls, and other studies, using different measures and methodology, have also found a significant relationship between depression and inwardly-directed hostility (cf. Newman et al., 1983; Bulatao 1961, cited in Gershon, et al., 1968), although some conflicting results have also been reported (Foulds et al., 1965; Slipp et al., 1973).

Before any final conclusion can be reached regarding this relationship, however, one point regarding the hostility-in scale needs to be addressed. Because the Gottschalk-Gleser scales are based in part on psychoanalytic theory, some of the scoring category for hostility-in entails statements about feeling depressed. Therefore, based on these statements alone one might expect at least a slight positive correlation between depression scores and inward hostility. This issue was addressed by Gershon, et al. (1968), who modified this scale by separating the self-critical statements from verbal expressions of depression. Verbal expressions of depression were scored in a separate category, which they called "affect-in." The remainder of the hostility-in scale was named the "modified hostility-in scale." Even with this modification, however, they found a significant positive correlation between depression scores and inward hostility, suggesting that this relationship cannot be accounted for simply due to expressions of depression.

The second hypothesis, which assumed a positive relationship between depression scores and orality, was not corroborated. Very little empirical study of this relationship has taken place, but studies by Paykel et al. (1976)

and Hirschfeld and Klerman (1979), also found little relationship between orality (assessed via the Lazare-Klerman-Armor scale) and depressive symptoms. Hirschfeld et al. (1979) did, however, find significantly lower levels of orality in manic patients, and Alnaes et al. (1991) found that both depressed and cyclothymic patients had higher oral scores than patients with other psychiatric disorders. Finally, Matussek et al. (1983) found that "neurotic depressives" demonstrated little orality but some hostility. Results from the current study and some of those just discussed, then, appear to discount the relationship between orality and depression (other studies used either only males or only females, and will therefore be discussed below). Before dismissing this hypothesis, however, problems with the orality scale, as described above, as well as the sample, should be taken into account.

Multiple regression analysis demonstrated a marginally significant prediction of depression scores based on orality and hostility scores. Examination of the beta weights revealed, however, that inward hostility was the primary source of this prediction, as would be expected based on the results discussed thusfar. In order to examine more fully the relationship between hostility and depression scores, a further regression analysis was undertaken using all of the independent variables. This equation proved significant, with overt hostility and inward hostility accounting for most of the variance. With this sample, then, hostility directed both towards the self and others did have a significant relationship with depression scores, albeit a slight one.

The only other relationship which approached significance for the whole sample was a positive correlation (at the 92nd probability level) between depression scores and overt hostility. This is in contrast to the studies of Gottschalk et al. (1969), which found that outward hostility was negatively correlated with depression scores. Results more in line with the present study were reported by Schöfer et al. (1979), who obtained a significant correlation between depression, as measured by the mood adjective check list, and overt hostility ($r = .16$). Lemaire et al. (1981) also found that depressed subjects expressed more outward and total hostility than non-

depressed subjects. These results have also been corroborated in research using other methods, such as that of Paykel (1971), who found a subgroup of depressed patients which he called "hostile depressives." In this regard, Mayo (1967) compared psychotic and neurotically depressed patients, and found that psychotic patients were higher on criticism and projected hostility, as well as on guilt. Therefore, it appears that, at least for a portion of depressed patients, depression is associated with higher levels of overt hostility.

Because previous research has suggested that the relationship between depression and variables such as hostility and orality might be different for males versus females, each analysis was undertaken separately by gender. If it is true that men and women are different in their handling of hostility and orality, then results which are based on mixed samples may tend to obscure relationships that are more obvious when studying only one gender.

An examination of gender differences on each of the variables revealed that women scored significantly higher on the orality and inward hostility scales than men. Previous research using the orality scale with Rorschach protocols did not reveal any significant gender differences (Masling, 1986; however, see O'Neill & Bornstein, 1991), so this finding is somewhat unexpected. Furthermore, Wiener (1956) found no sex differences on his oral measure with neurotic depressives. The higher inward hostility for women is also surprising based on the normative data of Gottschalk et al. (1969), which showed no significant gender difference on hostility-in. The previously mentioned work of Rubin et al. (1992), however, did find higher levels of inward hostility for women (this research was carried out at the same clinic as the present study).

Women also scored higher on the depression measure, as might be expected based on previous research (for analysis of higher rates of depression in women, see Nolen-Hoeksema,1987; Herman, 1983). In fact, women were higher than men on all variables, although not always significantly. In the normative data of Gottschalk et al. (1969), the only significant gender difference was for Hostility-out, with men scoring higher;

however, this difference was not significant in their patient sample.

When examining males only,[28] the relationship between depression scores and inward hostility was nearly significant, and not unlike the results of earlier studies. The relationship between depression scores and orality, however, was insignificant, corroborating the earlier work of O'Neill et al. (1990). This is in contrast to the studies of Bornstein et al. (1985) and O'Neill et al., (1991), which found a significant correlation between these variables in men. These results are confusing, because these studies all used the same oral scale. Although all of these studies (except Bornstein et al., 1985) used psychiatric patients, a more detailed analysis of differences in the samples used might prove interesting, and help shed light on the conflicting results. At this point, then, the relationship between orality and depression in men remains unclear.

Other significant relationships for men in the present study were found between depression scores and outward hostility, especially covert. In Gottschalk's scoring system covert hostility-out refers to statements of people other than the participant involved in fighting or other hostile acts. Gottschalk et al. (1969) assume that this may be a defensive reaction, and therefore represent unconscious or repressed hostility. This finding could be interpreted as lending corroboration to the inhibition of aggression theory of Kendell (1970). This result also corroborates the results of Foulds et al. (1960), who found that for melancholic men there was a high level of projected hostility, while for women this was much lower. The previously mentioned work of Paykel (1971) and Mayo (1967) also seems to fit with these results.

In the present study multiple regression analysis, using only inward hostility and orality, revealed a marginally significant equation, with inward hostility accounting for most of the variance. When all of the independent variables were included, however, a highly significant equation was found,

[28] Because the results by gender were based on samples of 15 subjects, the standard errors were quite large. These small sample sizes are especially problematic in multiple regression (Tabachnick & Fidell, 1983) and, therefore, the following findings should be considered starting points for future research using larger samples.

which accounted for 77% of the variance in depression scores. In this equation, covert hostility was a major contributor, while the effect of overt hostility was also significant. The beta weights for inward hostility and orality were not significant. Furthermore, the fact that the beta weight for orality was positive, even though the correlation between orality and depression scores was negative, suggests that in this equation orality was acting as a suppressor variable. In this regard it should be noted that marginally significant negative correlations were found between orality and inward hostility and covert hostility (both correlations = -.36). In conclusion, for men there appears to be a significant relationship between depression scores and both hostility directed against the self and others, while the relationship between depression scores and orality appears insignificant.

For women, significant positive relationships were found between the different hostility measures; if a subject displayed more inward hostility she tended to display more outward hostility also. This was in contrast to some previous work which has suggested a negative relationship between inward and outward hostility (Lemaire et al., 1981). The hypothesized relationship between depression scores and inward hostility was not supported. This is in contrast to the work of Gottschalk et al. (1969), which found this relationship to be quite strong for women-- often stronger than for men. This finding also contradicts that of Rubin (1986), who found a correlation of .54 between depression and inward hostility for women. As mentioned earlier, one possible reason for these conflicting results might be the presence of alcohol dependent subjects in the present study, although the actual effect of alcohol dependence on depression scores and hostility in this study is unknown.

Studies using other methodologies and measures have also demonstrated mixed results regarding the relationship between depression and inwardly-directed hostility in women. The earlier cited work of Rutstein et al. (1973) found corroboration for this relationship using Silverman's subliminal psychodynamic activation technique, while Slipp et al. (1981) did not; they mention that their study used less disturbed people than the Rutstein et al. (1973), so perhaps this relationship only holds for more depressed

patients, a notion that has received some corroboration in dissertations cited in Slipp et al., (1981).

Other studies have also demonstrated that this relationship only holds for more severely depressed people. Friedman (1970) found that this relationship was not significant for the whole sample, which included controls, but it did hold within the depressed patient sample. In order to examine this possibility in the current study, correlations were undertaken between depression scores and the independent measures for just the 15 depressed subjects. The correlation between depression scores and inward hostility was insignificant, but the correlation between depression scores and covert hostility was significantly negative (-.71, before correction), suggesting that within this depressed population the greater the covert hostility, the lower the depression. Perhaps, then, if depressed persons are able to express some of their hostility outward (especially in disguised covert fashion), they can direct the hostility away from themselves and in turn deter more severe depression. This dynamic has also been suggested by Lemaire et al. (1981), and Wessman et al. (1960).

With regard to the second hypothesis, the relationship between depression scores and orality was significant, although in the opposite direction to what was predicted. Similar results were reported by Josephthal (1956), who found higher levels of orality (as measured by the Blacky test) for normals and non-depressed women patients than for those who were depressed. The studies by O'Neill and colleagues (O'Neill et al., 1990; O'Neill et al., 1991) found mixed results for this relationship; the first found a significant positive relationship, the second found no relationship. In this sample, then, women who demonstrate more orality admit to fewer depressive symptoms, although the previously mentioned effects of possible alcohol dependence should be considered.

Although not hypothesized, a significant negative relationship between depression scores and covert hostility was found, showing that the more depressed the women were, the less covertly hostile they were. This is in contrast to Lazare et al. (1968), who found that in a subgroup of depressed

women (those who also had hysterical traits), hostility was quite high during depression. Perhaps these contradictory results can be explained in part by referring to the study by Gershon et al. (1968), which found two patterns for hostility in depressed women such that it was higher with patients who had hysterical personality features compared to those who did not. The negative correlation between depression scores and covert hostility was also contradicted by Wessman et al. (1960), who found, using the Rosenzweig Picture Frustration Test, that women were more extrapunitive and less intrapunitive when they were feeling more depressed (it should be noted, however, that this study used "normal" college students). Furthermore, there is some difference between covert hostility and extrapunitiveness. Wessman et al. (1960) suggest that at the point when this outward hostility begins to turn inward, more severe depression begins. This notion was corroborated in a study by Zuckerman, Persky, Eckman, & Hopkins (1967), which, in contrast to Wessman et al. (1960) study, used all male subjects. Zuckerman et al. (1967) found that hostility scores derived from the Buss-Durkee inventory correlated positively with depression in normals, but not in depressed outpatients.

In order to examine the effect of gender on hostility and orality in depression, the differences between these correlations for men versus women were examined. The relationship between depression scores and both total outward hostility, and, more specifically, covert hostility, was much greater for men than women. Men with high levels of covert hostility tended to have higher depression scores, while women with high levels of covert hostility tended to have lower levels of depression. Furthermore, the relationship between inward hostility and covert hostility was much greater for women than men, demonstrating that for women, but not for men, the amount of hostility directed against the self is related to the amount of covert hostility. These results strengthen the conclusion that hostility and its relation to depression is quite different for men versus women, and suggest that analyzing men and women together may serve to obfuscate important relationships.

In summary, then, this study adds to the body of evidence which demonstrates the important relationship between hostility and depression. Although many of the correlations did not account for a great deal of variance, significant effects were found, often corroborating previous research. The fact that the correlations were small should not be surprising, however, due to the subject matter and methodology. Masling et al., (1979) state that: "... it is as naive to expect to find impressive correlations between experiment and a psychoanalytic description of personality as it would be to expect to find a real person who is identical with a character in a novel" (p. 265).

The relationship between orality and depression, however, seems much more tentative. For women, a negative relationship between orality and depression scores was found, but for reasons stated above, this finding should not be considered conclusive. For men, no relationship was found. Aside from the issues already discussed, the effect of the sample should also be noted. As with the relationship between hostility and depression, it is likely that this sample was less severely depressed than those on whom the original theories were based. This was addressed by Milrod (1988):

> Depressed patients have lost their sense of worth and are engaged in efforts to regain it. If easily regained, the depression is short-lived and will hardly become a clinical problem. When restorative efforts are unsuccessful or blocked, regression to early oral modes of gaining self-esteem are brought into play... Although orality plays a universal role in the depressive's efforts to restore self-directed libidinal supplies, it is more obvious in the more severe depressions (pp. 94-95).

Because there has been so little research examining this relationship, it remains a question in need of further empirical analysis. One possible road for future research would be to divide the Masling Orality scale into two scales as he did (see Masling, 1986) and examine the relationship of each subscale to depression. This would allow for the testing of the "dependency"

hypothesis put forth by Hirschfeld, et al. (1976) and Birtchnell (1984).

In conclusion, this study demonstrated that there are significant gender differences found on the orality, hostility, and depression measures, and the relationships between them. Future research in depression will need to be aware of this, so that studies can be designed explicitly to examine these differences and the theoretical reasons for them.

Although there have been some findings in the area of hostility and its relationship to depression, one can not help but be struck by the large amount of conflicting results. Certainly part of this is due to the wide range of samples, measures, and methodologies used to assess this relationship. Masling et al. (1979) point out how much of the research in psychoanalytic theory is plagued by this problem:

> The field is dominated by single, non-replicated studies. With few exceptions, authors have published only one study on a particular topic, thus denying the field the opportunity of profiting from sustained, continuing programmatic research efforts. The next investigator of the topic has then adopted his own measures and his own operational definitions, and published his one study, which invariable contradicted the results of other studies (p. 295).

A further problem is that often studies (this one included) attempt to isolate a few variables, without accounting for the importance of a host of variables on the depressive experience (see Cronbach, 1975). Psychoanalytic writings on depression have emphasized the importance of hostility, orality, a severe superego, a lofty ego-ideal, loss of self-esteem, and narcissistic character structure. As Bellak (1981) pointed out, many of these ideas are testable, but perhaps future studies should attempt to assess a wider range of phenomenon so that the possible confounding effects of unexamined variables can be minimized.

Theory

Finally, I will address how the results described herein fit with existing theories of depression. Although, for the many reasons described above, it is difficult to say that this study was a true test of the early psychoanalytic theory of depression, the results do coincide with certain theoretical viewpoints better than others.

The hypothesized relationship between depression and inwardly-directed hostility, as described by Freud, Abraham, and other early psychoanalysts, does seem to hold for a certain group of depressed patients. Other theorists, however, posit a relationship between outwardly-directed hostility and depression, an idea which also found some corroboration. The presence of outwardly-directed hostility is in line with what Rado called "coercive rage," in which the patient would attempt to "terrorize the beloved one." Another theoretical viewpoint which receives some corroboration from these results is that of Bowlby (1963), who believes that "... the problem in understanding pathological mourning, it seems, is that of understanding not the simple presence of hostility directed against the lost object but its repression and/or displacement towards other objects including the self" (p. 524). This notion receives some corroboration from the significant correlation between depression scores and covert hostility. It should be remembered that covert hostility consists of statements about someone else killing or hurting something, which Gottschalk et al. (1969) believe implies some form of defensive adaptation. Shave (1974) supposes that in depression anger may be repressed, but it is not necessarily turned against the self. Instead, it finds its outlet in unconscious guilt, and it is this guilt, and not aggression turned against the self, which leads to death wishes, etc.

Other theorists, although acknowledging that orality and hostility sometimes play a role, see depression more as an ego phenomenon, especially exemplified by the feeling of helplessness. The idea is most closely linked with Bibring (1953), although other theorists (Rubinfine, 1968) have made this connection. Bibring (1953) differentiates between the "ego killing itself" and the "ego letting itself die"; he believes that aggression is only important

in the first case. In effect, he highlights the important notion that there are perhaps more than one type of depression, as did Milrod (1988-- see above). Therefore, in studies which mix together different types of depression, small correlations might be expected, as more powerful ones are perhaps being hidden.

As a quick examination of the "helplessness" hypothesis, all references to helpless or passive states were scored, and then correlated with depression scores. As would be expected based on Bibring's theory, this correlation was significant (corrected r = .47), lending some corroboration to this idea (interestingly, this relationship was much stronger for men than for women). This relationship is certainly an area that is ripe for further study.

In the final analysis, what can be said about psychoanalytic theories of depression? Certainly some of their tenets have proven vigorous under experimental scrutiny, even with the many flaws in design and methodology discussed herein. In the future, however, it seems that research must move to a more biopsychosocial view, one that takes into account the underlying personality, the social context, the interpersonal interactions, other psychopathology, and biology. Goldberg (1975) concludes that:

> ...psychoanalysis has made unique and fundamental contributions to our understanding of depression, but it has not explained it; yet without the concepts of psychoanalysis there will be no explanation of depression. No one discipline today seems capable of carrying the burden alone... fractionation of the observing field may be another problem; we notice the child's aggression and depression while we are unaware of the mother's feelings and reactions and totally oblivious to the social factors that may be operating. This is not a call for a holistic approach but rather a reminder that observation per se is an artifact in scientific investigations (pp. 137-138).

This was echoed by Basch (1975), who stated that:

> A satisfactory causal explanatory theory of depression must consider the entire gamut of the depressive

> syndrome, must be independent of any given school of psychological thought or method of therapy, must go beyond clinical appearances, and should not contradict what has been properly established to be the case in other sciences (p. 530).

Recently, a few theorists have moved in this direction, although the majority of work in this area continues to be narrow and one-dimensional. Two examples of more encompassing theories include the work of Basch (1975) and Freedman (1986), who have brought new and interesting ideas into this area. Until we are able to devise more precise experiments which are not too far removed from theory, however, we will remain unable to tease apart fact from artifact.

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APPENDICES

Appendix A[29]
Previous Research

Abbreviations--
- F = female
- M = male
- NC = unable to calculate
- RPFT = Rosenzweig Picture Frustration Test
- HDHQ = Hostility and Direction of Hostility Questionnaire
- G-GHS = Gottschalk-Gleser Hostility Scales
- BDI = Beck Depression Inventory
- Buss-Durkee = Buss-Durkee Hostility Inventory
- ORT = Object Relations Technique
- ACL = Adjective Checklist
- DEQ = Depressive Experiences Questionnaire
- MAS = Masling Orality Scale

Hostility

Caine, 1960

Subjects-- 26F psychiatric in-patients, Measures-- precursor to HDHQ, Findings-- depressed patients higher on self-criticism and guilt, lower on projection of hostility than paranoid patients, Effect Size-- r = .70, .54, respectively.

Foulds et al., 1960

Subjects--20M, 20F psychiatric in-patients, Measures-- HDHQ, Findings-- More outward hostility in depressed patients (only for Males), Effect Size-- NC.

Wessman et al., 1960

Subjects-- 25F students, Measures-- RPFT, Findings-- depressed subjects demonstrated more extrapunitive, and fewer intropunitive, responses.positive correlation between both covert hostility-out and hostility-in and depression, Effect Size-- NC.

Mayo, 1967

Subjects-- 8M, 16F psychiatric in-patients, Measures-- HDHQ, Findings-- melancholics more outward hostility (criticism of others, projected delusional hostility) than neurotic depressives, both groups less inward hostility with clinical improvement, Effect Size-- r = .62, .65, respectively.

Gershon et al., 1968

Subjects-- 6F psychiatric in-patients, Measures-- G-GHS, Findings-- positive correlation between hostility-in and depression, Effect Size-- r = .45.

[29] The formulas for calculating effect sizes, reported as "r", are taken from Hunter and Schmidt (1990).

Gottschalk et al., 1969
Subjects-- 4M, 15F psychiatric in-patients, Measures-- G-GHS, Findings-- negative correlation between hostility-out and depression, positive correlation between hostility-in and depression, Effect Size-- r = -.28, .35, respectively.

Gottschalk et al., 1969
Subjects-- 12M, 12F psychiatric in-patients, Measures-- G-GHS, BDI, Findings-- positive correlation between hostility-in and depression, Effect Size-- r = .48.

Gottschalk et al., 1969
Subjects-- 20M, 30F psychiatric out-patients, Measures-- G-GHS, BDI, Findings- positive correlation between hostility-in and depression, Effect Size-- r = .34.

Friedman, 1970
Subjects-- 155M, 379F psychiatric in-patients, Measures-- Buss-Durkee, Findings-- Significant correlation between internalization of anger and depression, Effect Size-- r = .30.

Klerman et al., 1970
Subjects-- 3F psychiatric in-patients, Measures-- G-GHS, Findings-- No significant results, Effect Size-- NC.

Philip, 1971
Subjects-- 36F psychiatric in-patients, Measures-- HDHQ, Findings-- more intropunitiveness for patients who did not improve, Effect Size-- r = .34

Rutstein et al., 1973
Subjects-- 64F psychiatric in-patients, Measures-- ACL, Rorschach, Findings-- increased depression following subliminal aggressive stimulus for suicidal patients, but no effect on inward hostility, Effect Size-- r = .27.

Blackburn, 1974
Subjects-- 51M, 55F psychiatric in-patients, Measures-- HDHQ, Findings-- depressed patients demonstrated more intropunitiveness than compared to normative data, this decreased with clinical improvement, Effect Size-- NC, r = ..37 for second finding.

Cochrane, 1975
Subjects-- 76M, 124F psychiatric in-patients, Measures-- ORT, Findings-- difficult to interpret regarding individual variables, Effect Size--NC.

Pilowsky et al., 1975
Subjects-- 15M, 53F psychiatric in-patients, Measures-- Depression questionnaire, anger and sadness levels, Findings-- nonendogenous depressives higher anger ratings than endogenous, Effect Size-- r = .28.

Gottschalk et al., 1979
Subjects-- 35 psychiatric out-patients (gender not given), Measures-- G-GHS, Findings-- positive correlation between hostility-in and depression, Effect Size-- r = .37.

Schöfer et al., 1979

Subjects-- 203M, 203F random normative sample, Measures-- G-GHS, Findings-- positive correlation between both covert hostility-out and hostility-in and depression, Effect Size-- r = .16, .22, respectively.

Lemaire et al., 1981

Subjects-- 6M, 12F students, Measures-- G-GHS, Findings-- depressed subjects demonstrated significantly more inward and outward hostility than controls, Effect Size-- r = .81, .75, respectively.

Slipp et al., 1981

Subjects-- 48F psychiatric in-patients, Measures-- ACL, TAT, Findings-- No change in depression following subliminal aggressive stimulus, Effect Size-- NC.

Oliver et al., 1982

Subjects-- 30F psychiatric in-patients, Measures-- ACL, TAT, Findings-- No change in depression following subliminal symbiotic stimuli, Effect Size-- NC.

Newman et al., 1983

Subjects-- 30M, 30F students, Measures-- self-esteem scale, physiological measures, Findings-- No main effect on depression following subliminal aggressive stimulus, Effect Size-- NC.

Rubin, 1986

Subjects--15M, 25F psychiatric out-patients, Measures-- G-GHS, Findings-- a positive correlation between depression and hostility-in was found for females, but not for males, Effect Size-- r = .54.

Barrett et al., 1992

Subjects-- 41F students, Measures-- content analysis of dreams, Findings-- depressed subjects dreams contained significantly less anger than nondepressed subjects, Effect Size- r = .42.

Orality

Josephthal, 1956

Subjects-- 57F psychiatric in-patients, Measures-- Blacky Pictures Test, Findings-- no significant relationship between orality and depression, Effect Size-- NC.

Wiener, 1956

Subjects-- 15M, 12F psychiatric in-patients, Measures-- Rorschach, Findings-- depressives had more hostile and neutral oral responses than alcoholics, Effect size- r = .50, .47, respectively.

Bornstein et al., 1985

Subjects-- 417M students, Measures-- DEQ, MAS, Findings-- overall depression score, dependency score, and self-criticism score all significantly correlated with orality, Effect Size-- r = .20, .11, .15, respectively.

O'Neill et al., 1990

Subjects-- 39M, 62F psychiatric in-patients, Measures-- MMPI, MAS, Findings-- depression significantly related to orality for females but not for males, Effect Size- (for gender/orality interaction) r = .27.

O'Neill et al., 1991

Subjects-- 20M, 20F psychiatric in-patients, Measures-- MMPI, BDI, MAS, Findings-- depression significantly related to orality for males but not for females, Effect Size-- (males) r = .44, (females) r = .14.

Appendix B
Research Consent Form

Dear Client:

The clinic is conducting an evaluation to assess the helpfulness of the services offered here in meeting the needs of our clients. We expect that through this evaluation we will be able to find better ways to serve you.

In order to carry out this evaluation, we request your assistance. We will ask you to fill out one or two questionnaires during your initial intake interview, after your last therapy session and sometime after your therapy has ended. In addition, we would like to tape record occasional therapy sessions. These questionnaires and tapes will help us understand your reasons for coming to the clinic and how useful therapy has been for you. All questionnaires and tapes will be held in strict confidence and you will remain completely anonymous. Your right to therapy will not be affected by your decision on whether or not you participate in the evaluation. You also have the right to drop out of the evaluation at any time.

If you are willing to participate in this research, please sign the statement below.

Sincerely,

The Staff of the Psychological Clinic

I hereby agree to take part in this evaluation research and grant permission for some of my/my child's therapy sessions to be tape recorded. I grant this permission with the understanding that names, questionnaires and recorded materials will be held in strict confidence.

_____
Name

_____
Date

Appendix C
SCL-90-R Test

INSTRUCTIONS: Below is a list of problems and complaints that people sometimes have. Please read each one carefully. After you have done so, please circle one of the numbers to the right that best describes how much that problem has bothered or distressed you during the past couple of weeks including today. Circle only one number for each problem and do not skip any items. Please read the example before beginning.

CATEGORIES: 0 - Not at all
1 - A little bit
2 - Moderately
3 - Quite a bit
4 - Extremely

EXAMPLE: How much were you bothered by: 1. Backaches
By circling #1, this person answered that he/she was a little bit bothered by backaches.

1. Headaches	0	1	2	3	4
2. Nervousness or shakiness inside	0	1	2	3	4
3. Unwanted thoughts, words, or ideas that won't leave your mind	0	1	2	3	4
4. Faintness or dizziness	0	1	2	3	4
5. Loss of sexual interest or pleasure	0	1	2	3	4
6. Feeling critical of others	0	1	2	3	4
7. The idea that someone else can control your thoughts	0	1	2	3	4

8. Feeling others are to blame for most of your troubles	0	1	2	3	4
9. Trouble remembering things	0	1	2	3	4
10. Worried about sloppiness or carelessness	0	1	2	3	4
11. Feeling easily annoyed or irritated	0	1	2	3	4
12. Pains in heart or chest	0	1	2	3	4
13. Feeling afraid in open spaces or on the streets	0	1	2	3	4
14. Feeling low in energy or slowed down	0	1	2	3	4
15. Thoughts of ending your life	0	1	2	3	4
16. Hearing voices that other people do not hear	0	1	2	3	4
17. Trembling	0	1	2	3	4
18. Feeling that most people cannot be trusted.	0	1	2	3	4
19. Poor appetite	0	1	2	3	4
20. Crying easily	0	1	2	3	4
21. Feeling shy or uneasy with the opposite sex	0	1	2	3	4
22. Feeling of being trapped or caught	0	1	2	3	4
23. Suddenly scared for no reason	0	1	2	3	4
24. Temper outbursts that you could not control	0	1	2	3	4

25. Feeling afraid to go out of your house alone.	0	1	2	3	4
26. Blaming yourself for things	0	1	2	3	4
27. Pains in lower back	0	1	2	3	4
28. Feeling blocked in getting things done	0	1	2	3	4
29. Feeling lonely	0	1	2	3	4
30. Feeling blue	0	1	2	3	4
31. Worrying too much	0	1	2	3	4
32. Feeling no interest in things	0	1	2	3	4
33. Feeling fearful	0	1	2	3	4
34. Your feelings being easily hurt	0	1	2	3	4
35. Other people being aware of your private thoughts	0	1	2	3	4
36. Feeling others do not understand you or are unsympathetic	0	1	2	3	4
37. Feeling that people are unfriendly or dislike you	0	1	2	3	4
38. Having to do things very slowly to insure correctness	0	1	2	3	4
39. Heart pounding or racing	0	1	2	3	4
40. Nausea or upset stomach	0	1	2	3	4
41. Feeling inferior to others	0	1	2	3	4
42. Soreness of your muscles	0	1	2	3	4

43. Feeling that you are watched or talked about by others	0	1	2	3	4
44. Trouble falling asleep	0	1	2	3	4
45. Having to check and double-check what you do	0	1	2	3	4
46. Difficulty making decisions	0	1	2	3	4
47. Feeling afraid to travel on buses, subways, or trains	0	1	2	3	4
48. Trouble getting your breath	0	1	2	3	4
49. Hot or cold spells	0	1	2	3	4
50. Having to avoid certain things, places, or activities because they frighten you	0	1	2	3	4
51. Your mind going blank	0	1	2	3	4
52. Numbness or tingling in parts of your body	0	1	2	3	4
53. A lump in your throat	0	1	2	3	4
54. Feeling hopeless about the future	0	1	2	3	4
55. Trouble concentrating	0	1	2	3	4
56. Feeling weak in parts of your body	0	1	2	3	4
57. Feeling tense or keyed up	0	1	2	3	4
58. Heavy feelings in your arms or legs	0	1	2	3	4
59. Thoughts of death or dying	0	1	2	3	4
60. Overeating	0	1	2	3	4

61. Feeling uneasy when people are watching or talking about you	0	1	2	3	4
62. Having thoughts that are not your own	0	1	2	3	4
63. Having urges to beat, injure or harm someone	0	1	2	3	4
64. Awakening in the early morning	0	1	2	3	4
65. Having ideas or beliefs that others do not share	0	1	2	3	4
66. Sleep that is restless or disturbed	0	1	2	3	4
67. Having urges to break or smash things	0	1	2	3	4
68. Having ideas or beliefs that others do not share	0	1	2	3	4
69. Feeling very self-conscious with others	0	1	2	3	4
70. Feeling uneasy in crowds such as shopping or at a movie	0	1	2	3	4
71. Feeling everything is an effort	0	1	2	3	4
72. Spells of terror or panic	0	1	2	3	4
73. Feeling uncomfortable about eating or drinking in public	0	1	2	3	4
74. Getting into frequent arguments	0	1	2	3	4
75. Feeling nervous when you are left alone	0	1	2	3	4
76. Others not giving you proper credit for your achievements	0	1	2	3	4

77. Feeling lonely even when you are with people	0	1	2	3	4
78. Feeling so restless you couldn't sit still	0	1	2	3	4
79. Feelings of worthlessness	0	1	2	3	4
80. Feeling that familiar things are strange	0	1	2	3	4
81. Shouting or throwing things	0	1	2	3	4
82. Feeling afraid you will faint in public	0	1	2	3	4
83. Feeling that people will take advantage of you if you let them	0	1	2	3	4
84. Having thoughts about sex that bother you a lot	0	1	2	3	4
85. The idea that you should be punished for your sins	0	1	2	3	4
86. Feeling pushed to get things done	0	1	2	3	4
87. The idea that something serious is wrong with your body	0	1	2	3	4
88. Never feeling close to another person	0	1	2	3	4
89. Feelings of guilt	0	1	2	3	4
90. The idea that something is wrong with your mind	0	1	2	3	4

Appendix D
Hopkins Psychiatric Rating Scale

Clinician-

Please rate the client on each of these variables, with 1 being absent and 5 being extremely characteristic.

Intake Ratings

Hopkins Psychiatric Ratings

1. Somatization	1	2	3	4	5
2. Obsessive-Compulsive	1	2	3	4	5
3. Interpersonal Sensitivity	1	2	3	4	5
4. Depression	1	2	3	4	5
5. Anxiety	1	2	3	4	5
6. Hostility	1	2	3	4	5
7. Phobic Anxiety	1	2	3	4	5
8. Paranoid Ideation	1	2	3	4	5
9. Psychoticism	1	2	3	4	5
10. Global Pathology Index	1	2	3	4	5

Feel I had adequate information to rate (1 = Yes, 2 = No)

Appendix E
Gottschalk-Gleser Hostility Scales

Hostility Directed Outward Scale: Destructive, Injurious, Critical Thoughts and Actions Directed to Others

I. Hostility Outward-Overt
Thematic Categories

a3* Self killing, fighting, injuring other individuals or threatening threatening to do so.

b3 Self robbing or abandoning other individuals, causing suffering or anguish to others, or threatening to do so.

c3 Self adversely criticizing, depreciating, blaming, expressing anger, dislike of other human beings.

a2 Self killing, injuring or destroying domestic animals, pets, or threatening to do so.

b2 Self abandoning, robbing, domestic animals, pets, or threatening to do so.

c2 Self criticizing or depreciating others in a vague or mild manner.

d2 Self depriving or disappointing other human beings.

al Self killing, injuring, destroying, robbing wild life, flora, inanimate objects or threatening to do so.

bl Self adversely criticizing, depreciating, blaming, expressing anger or dislike of subhumans, inanimate objects, places, situations.

cl Self using hostile words, cursing, mention of anger or rage without referent.

II. Hostility Outward-Covert
Thematic Categories

a3 Others (human) killing, fighting, injuring other individuals or threatening to do so.

b3 Others (human) robbing, abandoning, causing suffering or anguish to other individuals, or threatening to do so.

c3 Others adversely criticizing, depreciating, blaming, expressing anger, dislike of other human beings.

a2 Others (human) killing, injuring, or destroying domestic animals, pets, or threatening to do so.

b2 Others (human) abandoning, robbing, domestic animals, pets, or threatening to do so.

c2 Others (human) criticizing or depreciating other individuals in a vague or mild manner.

d2 Others (human) depriving or disappointing other human beings.

e2 Others (human or domestic animals) dying or killed violently in death-dealing situation or threatened with such.

f2 Bodies (human or domestic animals) mutilated, depreciated, defiled.

al Wild life, flora, inanimate objects, injured, broken, robbed, destroyed or threatened with such (with or without mention of agent).

bl Others (human) adversely criticizing, depreciating, expressing anger or dislike of subhumans, inanimate objects, places, situations.

cl Others angry, cursing without reference to cause or direction of anger. Also instruments of destruction not used threateningly.

dl Others (human, domestic animals) injured, robbed, dead, abandoned or threatened with such from any source including subhuman and inanimate objects, situations (storms, floods, etc.).

el Subhumans killing, fighting, injuring, robbing, destroying each other or threatening to do so.

fl Denial of anger, dislike, hatred, cruelty, and intent to harm.

* The number serves to give the weight as well as to identify the category.

The letter also helps identify the category.

Hostility Directed Inward Scale: Self-Destructive, Self-Critical Thoughts and Actions

I. Hostility Inward
Thematic Categories

a4* References to self (speaker) attempting or threatening to kill self, with or without conscious intent.

b4 References to self wanting to die, needing or deserving to die.

a3^ References to self injuring, mutilating, disfiguring self or threats to do so, with or without conscious intent.

b3 Self blaming, expressing anger or hatred to self, considering self worthless or of no value, causing oneself grief or trouble, or threatening to do so.

c3 References to feelings of discouragement, giving up hope, despairing, feeling grieved or depressed, having no purpose in life.

a2 References to self needing or deserving punishment, paying for one's sins, needing to atone or do penance.

b2 Self adversely criticizing, depreciating self; references to regretting, being sorry or ashamed for what one says or does; references to self mistaken or in error.

c2 References to feeling of deprivation, disappointment, lonesomeness.

al References to feeling disappointed in self; unable to meet expectations of self or others.

bl Denial of anger, dislike, hatred, blame, destructive impulses from self to self.

cl References to feeling painfully driven or obliged to meet one's own expectations and standards.

* The number serves to give the weight as well as to identify the category.

The letter also helps identify the category.

^ This code is reduced to a weight of 2 if the injury is slight. It is then written Ia3.

Appendix F
Masling Orality Scale

1. Foods and drinks
    a. Anything that can be eaten or drunk in its present slate is scored—meat, bread, milk, whiskey, carrot, mushroom ("mushroom-shaped cloud" is not scored).
    b. An animal is scored only if it is invariably associated with being edible (e.g., chicken). Duck or turkey is not scored unless phrases descriptive of food are used (e.g., "roast duck," "turkey leg"). Descriptions of animal life in the sea (e.g., crabs, lobsters, fish on Card 10) are not scored unless they are qualified as edible ("boiled lobster").

2. Food sources
    a. Obvious sources of food—restaurant, bar, saloon, picnic, birthday party.
    b. Inferred sources—breast, bra, well-endowed woman, buxom woman.

3. Food objects—kettle, decanter, silverware, drinking glass. Score "pot" and "cauldron" on Card 3 only if the act of cooking is implied.

4. Food provider—waiter, cook, bartender.

5. Passive food receiver—bird in nest, piggy bank. References to either "fat" body shapes or "thin, slender" shapes (e.g., fat man, thin man, skinny legs, big stomach, flat stomach) are scored.

6. Beggars, those praying for help—person saying prayers, two dogs begging, person asking forgiveness.

7. Food organs—mouth, stomach, lips, jaw, liver, intestines, teeth.

8. Oral instruments—lipstick, clarinet, tuba, cigarette, whistle, dentures, toothbrush, telephone, megaphone.

9. Nurturers—parent, mother, father, doctor, nurse, God, Jesus, genie, angel, life preserver, Good Fairy.

10. Gifts and gift givers—Xmas tree, Santa Claus, cornucopia.

11. Good luck—wishbone, rabbit's foot, or horseshoe if these are in the context of a good-luck talisman; four-leaf clover.

12. Oral activity—eating, talking, gossiping, arguing, singing, shouting, smoking, kissing, dogs howling or barking, lipstick stains.

13. Passivity and helplessness
    a. Explicit statements of helpless or passive condition—"he looks confused," "unable to protect himself," "he is lost."
    b. Embryo is scored. Baby is not scored unless there is some suggestion of passiveness, frailness.

14. Pregnancy and reproductive organs—placenta, womb, ovaries, pregnancy. Vagina, penis, pelvis, and sex organs are not scored.

15. Baby talk in the subject's responses—teeny-weeny person, bunny rabbit, playing patty-cake, pussycat.

16. Negations of oral percepts are scored—"there is no mouth here," "she is not pregnant," "empty cupboard," "woman with no breasts," "definitely not a Christ figure."

Appendix G
Additional Tables

TABLE 2
Intercorrelations between verbal samples for outward hostility

Outward hostility	HOTOT1	HOTOT2	HOTOT3
HOTOT1	1.000		
HOTOT2	-.126	1.000	
HOTOT3	.263	.053	1.000
Overt hostility	**HOOVE1**	**HOOVE2**	**HOOVE3**
HOOVE1	1.000		
HOOVE2	-.063	1.000	
HOOVE3	.043	.084	1.000
Covert hostility	**HOCOV1**	**HOCOV2**	**HOCOV3**
HOCOV1	1.000		
HOCOV2	-.053	1.000	
HOCOV3	.347	-.015	1.000

TABLE 7
Correlations between depression scores and outward hostility

	r	Confidence Interval	Inf. Probability	Odds Ratio
DEPRESS and HOTOT	.10	$-.26 \leq p \leq .45$	.70	2.3/1
DEPRESS and HOOVE	.26	$-.10 \leq p \leq .61$	.92	11.5/1
DEPRESS and HOCOV	.04	$-.33 \leq p \leq .41$	.58	1.4/1

TABLE 13
Correlations between depression scores and outward hostility in males

	r	Confidence Interval	Inf. Probability	Odds Ratio
DEPRESS and HOTOT	.73	$.49 \leq p \leq .97$	1.00	NC
DEPRESS and HOOVE	.30	$-.11 \leq p \leq .71$	.92	11.5/1
DEPRESS and HOCOV	.72	$.48 \leq p \leq .96$	1.00	NC

TABLE 14
Correlations between scales for males

	r	Confidence Interval	Inf. Probability	Odds Ratio
HOTOT AND HIN	.23	$-.18 \leq p \leq .64$	.86	6.1/1
HOTOT AND ORAL	-.31	$-.68 \leq p \leq .06$	.94	15.7/1
HOCOV AND HIN	.21	$-.20 \leq p \leq .62$	.84	5.3/1
HOCOV AND ORAL	-.36	$-.69 \leq p \leq .00$	.98	49/1

TABLE 19
Correlations between depression scores and outward hostility in females

	r	Confidence Interval	Inf. Probability	Odds Ratio
DEPRESS and HOTOT	-.31	$-.72 \leq p \leq .10$	.93	13.2/1
DEPRESS and HOOVE	.20	$-.25 \leq p \leq .65$	.81	4.2/1
DEPRESS and HOCOV	-.36	$-.75 \leq p \leq -.03$	.96	24/1

TABLE 20
Correlations between scales for females

	r	Confidence Interval	Inference Probability	Odds Ratio
HIN and HOTOT	.56	$.32 \leq p \leq .79$	1.00	NC
HIN and HOOVE	.46	$.16 \leq p \leq .75$	1.00	NC
HIN and HOCOV	.49	$.22 \leq p \leq .76$	1.00	NC
ORAL and HOOVE	.31	$-.04 \leq p \leq .67$	.94	15.7/1