Psychological Essentialism the Axis I – Axis II distinction

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PSYCHOLOGICAL ESSENTIALISM AND THE AXIS I – AXIS II DISTINCTION

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THESIS ABSTRACT

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This study investigated the extent to which people conceptualize psychiatric disorders within an essentialistic framework. It specifically examined differences between an Axis I disorder, namely Dysthymic Disorder, and an overlapping Axis II disorder, namely Depressive Personality Disorder. Descriptions of a depressed person were manipulated in terms of two variables. The first variable was *disorder*, either an Axis I condition that people have or an Axis II personality trait that describes what people are like. The second variable was *presumed etiology*. Participants were told the depressive symptoms were either caused biologically or psychologically.

Results indicate that people generally do not essentialize an Axis I disorder more than an Axis II disorder; however, significant differences were found in regards to

essentialist beliefs when participants were told that an Axis I psychiatric disorder was biologically caused. For the Axis I disorder, a biological etiology was more essentialized than a psychological etiology. In addition, participants who had themselves sought help or reported having a family member who had sought help for a psychiatric disorder were less likely to essentialize the disorder if it was assigned a psychological etiology.

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Introduction to the Problem

People naturally classify and organize their worlds into groups or categories. Categories tend to be chosen because they allow us to make useful distinctions, for example *raw versus cooked,* or *poisonous versus edible.* Assignment into categories is not arbitrary; rather, people sort and classify things (i.e., organisms, behaviors) based on distinct properties, or the lack of those properties, whether they are consciously aware of this process or not.

Since the time of Plato, many scholars adopted essentialist models of classification, where an essence or set of underlying properties are thought to be necessary and sufficient conditions for category membership. Understanding the category means understanding the essence. Medin and Ortony (1989) and several researchers in developmental psychology (Gelman & Cooley, 1991, Gelman & Wellman, 1991) believe that people have a natural bias toward essentialist thinking.

Studies in philosophy (Hull, 1989, Lakoff, 1987, Zachar 2000) and cognitive psychology, (Medin, 1989, Rosch & Mervis, 1975) have argued that essentialist classification or "the classical category model" is not scientifically justified. For example, Rosch and Mervis (1975) rejected essentialist categories in favor of prototype categories, and Medin rejected essentialist categories in favor of exemplar categories. These models of categorization are very popular in scientific psychology, especially among those who study classification in cognitive and social psychology (Medin, Lynch, & Soloman, 2000, Schneider, 2004).

Both prototype and exemplar models claim that rather than sharing necessary and sufficient features, category members share a *family resemblance*. In family resemblance approaches, categories are defined by a best example and members resemble that example in varying degrees. A robin would resemble a prototypical bird, occupying the center of the category, whereas a penguin does not resemble the prototype and would be placed on the boundary of the category. Rosch and Mervis (1975) have found that people actually organize inferences about the world in this manner. For example, people are able to classify prototypical birds as birds, such as a robin or a blue bird, faster than non-prototypical birds. Research in cognitive psychology, which indicates that there is not a single ideal prototype, rather multiple concrete examples or *exemplars* of a category, has led to the exemplar model as an alternative.

In philosophy, Hull (1989), Dupre' (1993), and Zachar (2000) have also argued that in addition to describing how people think about the world, the world is most accurately conceptualized according to family resemblance models. Hull (1989) showed that Darwin's view of species specifically rejects an essentialist model. Based on work by Ian Hacking (1999) and John Dupre' (1993) in philosophy, Ernst Mayr in evolutionary biology, and Donald T. Campbell (1974) in scientific methodology, Zachar (2000) has applied Darwinian non- essentialism to the classification of psychiatric disorders.

Just as we make distinctions such as raw versus cooked in order to help us interact with our everyday world, psychiatrists make distinctions to help them interact with their professional world. There has recently been much debate among professionals about the classification of psychiatric disorders (Haslam 2003, Wakefield 2000, Zachar 2000; 2003). For example, the DSM classifies disorders as both *symptom* disorders and

personality disorders (i.e., Axis I and Axis II). Some psychologists argue that certain symptom disorders and personality disorders are basically the same thing and cannot reliably be separated, while others argue that they are related but different disorders.

This study will explore the extent to which individuals make certain assumptions and inferences about categories of psychiatric disorders, specifically, essentialistic assumptions. It will examine the similarities, as well as the differences, among how laypeople conceptualize a medical model syndrome on Axis I versus a personality disorder on Axis II, and how theories about biological versus psychological etiologies affect conceptualization.

Literature Review

Folk Biology

In every society, people think about and classify organisms in specific ways. According to Atran (1998), how people classify and organize the organic world can be called "folk biology." Studies of folk biology have found that despite significant variations in plants and animals, humans across many different cultures classify the world of living things in a similar way. When classifying biological organisms, people classify things into species-like groups and consider the organism's internal properties (e.g., number of chromosomes) to be responsible for its identity. This internal property causes the organism to be what it is and thus maintain its identity even if it's outside property changes.

Atran (in Gelman and Hirschfeld, 1999) described two types of classification in folk biology; a taxonomic principle and a causal principle. Both principles pull together the common properties of plants and animals and give them a single name. The taxonomic principle is a hierarchical ordering system, for example, both humans and chimps belong to the higher order category of mammal. In the casual principle, members of each taxon share a "nature" or underlying propensity to develop the appearance and behaviors typical of that category. For example, all acorns share an underlying propensity to grow into an oak tree.

In essentialistic theory, every object or organism has some underlying properties that make it be the kind of organism it is. Individual organisms in a species may differ from one to another, yet they all share a common set of properties that make them belong to the same group. This has traditionally been described as the "essence" of an organism.

According to Gelman and Hirschfield (1999) the philosophical notion of an "essence" is remarkably pervasive over time (at least over the past 2,400 years beginning with Plato) and across radically different philosophical traditions and cultures.

The issue of whether essences actually exist is a philosophically complicated one. Side-stepping that issue, Medin and Ortony (1989), claim that the central component of folk biology is an "essence placeholder." The essence placeholder can be thought of as a way of conceptualizing an organism as having a set of properties that makes it be what it is. The notion of "essence placeholder" doesn't require essences to be real, it merely states that people tend to think about organisms essentialistically.

Children's Understanding of Biological Categories

An important research area for folk biology is developmental psychology. Keil (1989) found that children in the second and fourth grades understand that animals can maintain their identity even when they undergo marked change. In this study, the children were shown pictures of animals and then told a doctor altered the appearance of the animals significantly. For example, they were told a tiger had its fur bleached and a mane sewed onto it, and now it looked similar to a lion. The children were then asked if the tiger was still a tiger, or if it had become a lion. Results showed that children from both second and fourth grades believed that the tiger would remain a tiger, even though it resembled a lion. Keil suggested that children understand "tigerness" in terms of hidden or internal properties. This conclusion is also based on the fact that similar transformations for artifacts (e.g., changing a coffee pot into a bird feeder) did not result in the children conserving the label name.

Piaget believed that pre-operational children's understanding is limited to appearances. They supposedly lack a causal understanding of the world and are not able to think logically. In addition to not understanding the physical world, young children are also supposed to be egocentric (i.e., assume that other share their perceptions (Berk, 1998).

With respect to children's understandings of the physical world, Spelke (1994) showed that infants can demonstrate complex causal understanding, such as knowing that two objects cannot occupy the same space at the same time. They understand this at an age when Piaget believed they are limited to what they can see, thus lacking abstract understanding. Spelke's research and similar studies lead other psychologists to prove that Piaget also underestimated the psychological abilities of children. The research program studying the development of psychological mindedness is called the theory of mind program.

Theory of Mind

Theory of mind research has shown that children start to reflect on their own thought processes, as well as those of others, and form beliefs about mental activities much earlier than Piaget originally believed was possible. By the age of three, children distinguish thinking from other mental activities (Estes, 1994; Flavell, Green, & Flavell, 1995). They realize that thinking takes place inside their heads and that a person can think about something without seeing it or talking about it. By age four, they understand that a person can have false beliefs. Children's understanding of false beliefs means that they can distinguish between internal representations and external reality.

The theory of mind paradigm studies children's understandings of unseen internal events, specifically beliefs and desires. Several researchers in the theory of mind tradition became interested in folk biology and how children used their understanding of internal events to classify an organism. For example, Gelman and Markman (1986) were specifically interested in understanding the extent to which three and four year old children draw inferences about objects based on outside appearance or natural category membership.

Gelman and Markman (1986) used pictures of natural categories such as snakes, dinosaurs, birds, squirrels, sand, gold, and diamonds. Children were shown three pictures at a time. A child was shown two pictures, one of a tropical fish and one of a gray dolphin, which both served as targets. The child was told the names of the two pictures, *fish* and *dolphin*, and then he or she learned some nonobvious property about the categories (a fish "breathes underwater" and a dolphin "breathes out of the water"). The third picture (also known as the test picture) was a gray shark and children were told that it was a *fish*. The gray shark resembled the gray dolphin, but actually belonged to the *fish* category (the shark and the tropical fish are both fish). When children were told that a fish breathes underwater and then shown a picture of the shark and told it was a fish, many children inferred that the shark breathed under water as well. Interestingly, pre-school aged children based 68% of their inferences on natural category membership.

Gelman and Wellman (1990a) studied the extent to which four and five year old children realize that internal parts can be more essential than external parts for naming and categorizing an object. They used two test items; insides-relevant and insides-irrelevant. The inside-relevant items were those in which the insides were crucial for

categorizing an object. For example, a dog would be an inside-relevant item, as its heart and guts are more critical than fur. An example of an inside-irrelevant item is a jar which contains jelly. The jelly inside and the label outside the jar are both irrelevant to the jar's identity, thus removing the jelly or the label does not change the jar's identity.

For each item, the child was asked to consider if (1) removal of insides, (2) removal of outsides, and (3) movement, made the object become something different or if it remained the same. For example, if the item was a dog, the researchers asked (1) "*What if you take out the stuff inside of the dog*", (2) "*What if you take off the stuff outside of the dog*?", and (3) "*What if the dog stands up*?" Children were asked to consider all of these questions and decide whether the dog remained a dog or if it became something else entirely. Results indicated that children assumed inside relevant objects became something different when its insides were removed. Thus, they considered insides more critical than outsides. For an item such as a jar, children considered both insides and outsides as irrelevant to its identity (e.g., if you take out the jelly, a jar remains a jar). These results demonstrated that children considered insides critical for object identity, only for a specific kind of object, namely, biological organisms.

Gelman and Wellman (1990b) wanted to find out if pre-operational children as young as three and four years old make inferences about the "insides" of things (or non obvious characteristics), instead of simply classifying them based on external appearance. Each child saw three pictures at a time, for a total of six sets of pictures. These pictures consisted of one target picture and two comparison pictures. For example, a child saw a pig (target picture), a piggy bank, and a cow. A pig and a piggy bank look similar, while a pig and a cow look different. Each child was asked which picture looked most like the

target and which picture had the same kinds of insides as the target. Results indicated that children were able to distinguish between the pictures that look most alike (e.g., pig and piggy bank) and the pictures that contained the same types of insides (e.g. pig and cow). Four year olds were better able than three year olds to distinguish between appearances and insides when classifying objects.

According to Gelman and Wellman (1990b), insides typically remain unobserved (e.g., the bones and heart of a bird). An essence is usually hidden, but it is so important to the classification of an object that without it, the object would have a different identity. People see organisms as having outer appearances that are visible, inner appearances which are non-obvious, as well as essences. Most adults have the ability to disregard the outer appearances of organisms, thus classifying them based on non-obvious, underlying entities. By doing this, adults are able to categorize certain organisms based on what is not readily apparent to the naked eye. It appears that children *are able* to do this at unexpectedly young ages; although, they may not always categorize in this manner.

Gelman and Coley (1990) studied the extent to which children between two and three years old categorize certain objects or organisms based on insides while ignoring more superficial properties. Each child saw several picture sets. There were five pictures in each set. The first picture was the *target* picture, which was an easily recognizable instance of a category, such as a bird or dinosaur. The next four pictures were test pictures. Two test pictures were from the same category as the target picture, and two test pictures were from a different category. One picture consisted of a prototypical member of the category, and the second picture was an atypical instance of the category (this member was likely to be unfamiliar to the child).

For example, in the bird category, the prototypical picture was a blue bird, and the atypical picture was a dodo bird. In the dinosaur category, the prototypical picture was a stegosaurus, and the atypical picture was a pterodactyl. The picture of the prototypical member (blue bird) of the target category looked much like the atypical member of the contrasting category (pterodactyl). Both pictures resembled the target picture.

The researchers were interested in finding if children, who are told to which category an object belonged, would be able to use the category as the basis of further inferences about the object. In traditional philosophical terminology, they would investigate if children thought of organisms as natural kinds. A natural kind is a category where members are similar to each other and one can make inferences about the entire category based on observation of a single member.

For example, if children were told that a bird lives in a nest, and then told an animal was a bird, they should assume that it lives in a nest as well. The child was shown the target picture (a bird), told one characteristic of the object/picture (e.g., lives in a nest, etc.), and was then shown four test pictures (e.g. typical bird, atypical bird, typical dinosaur, and atypical dinosaur). The child was then asked, one by one, if the four test pictures had the same property (i.e. lives in a nest) as the target picture. There were two conditions in this study. The first was a *labeled* condition. In the labeled condition, the target pictures were labeled for the child (e.g. "This is a bird. This is a dinosaur"). In the *no label* condition, the children were not told the names of the target pictures.

As a result, children were more accurate on the typical pictures than on the atypical pictures. They inferred a blue bird lived in a nest and stegosaurus does not, but were less sure about dodo birds and pterodactyls. In addition, they were more accurate in

the label condition than the no label condition. If they were told a dodo was a bird, they inferred that it lives in a nest. Performance on the typical picture was not affected by labeling the picture, but on atypical pictures, children performed significantly better when the picture was labeled.

Summarizing the relevant research, Gelman and Coley (1991) suggest that humans group objects in two ways: intuitive kinds and theoretical kinds. Intuitive kinds are grouped by appearances alone (e.g. grouped by height), while theoretical kinds are grouped by an underlying characteristic of an object (e.g. a bat is a mammal rather than a bird). Theoretical kinds are also scientific kinds because their internal properties are not obvious. Children posses the ability to appreciate theoretical kind categories even before they are educated in classifying objects based on scientific domain-specific knowledge. Young children may have a natural understanding of how organisms fit into specific categories and how categories share nonobvious properties that do not always correspond to outward appearances. Gelman has labeled the tendency to understand organisms essentialistically as the *essentialist bias*.

Because children possess the ability to correctly assume that an organism can remain the same, even with rapid transformation, researchers began to ask whether they possess similar biases/expectations about the constancy of social categories. For example, Hirschfield (1995, 1996) studied whether preschool children believe social identities are changeable. He asked three, four, and seven year old children if a person's race or physique would change as he or she got older. Interestingly, he found that even three year olds alleged that a person's physique would most likely change, but his or her race would not. Additionally, Hirschfield asked three year old children if parents and

their children were likely to resemble each other racially or in body build. The children stated that the parent and child would resemble each other in race, but not physique. This suggests that children believe race is more constant than body shape, and that race, not physique, remains constant over time.

Essentialist Understanding of Social Categories Among Adults

Based on previous writing on essentialism, Haslam and Rothschild (2000) identified conceptual elements that define an essentialist category. These include (1) the existence of necessary or defining characteristics, (2) the existence of sharp category boundaries- you are either a category member, or you are not, (3) naturalness, (4) having inductive potential- knowing that someone is a member of a category allows one to make many inferences about that person, (5) immutability- the category is stable, (6) historical invariance- the category has not changed over time, (7) homogeneneity within categories, and (8) identity based on inherent, intrinsic or underlying properties rather than merely superficial resemblances.

Haslam, Rothschild, and Ernst (2000) conducted a study to determine the extent to which common social categories are understood essentialistically. They specifically asked people to rank 19 categories such as age groups, ethnic groups, political groups, language groups, psychiatric disorders, religions, and social classes.

Factor analyzing the results, they found two factors or dimensions of essentialism. They labeled the first factor "natural kind." This term is similar to Paul Meehl's (1964) definition of natural kinds as a category with non arbitrary boundaries. It includes immutability, naturalness, historical invariance, sharp boundaries, and necessary features. Gender, racial, and ethnic categories best exemplified this factor. They labeled the

second factor "entitivity." This factor includes the elements of homogeneity, inductive potential, "either–or" membership, and shared inhering properties. The social categories that exemplify entitivity are sexual orientation, diseases, and religion. The natural kind factor focuses on something being more biological, unchanging, and having been around for a long time. The entitivity factor focuses on every member of the category being the same in some way.

Gordon Allport (1954) noted that some people tend to consistently group others in ways that are rigid, undifferentiated, dichotomous, intolerant of ambiguity, and resistant to modification. Allport maintained that a person's prejudiced thinking was not just a result of a specific attitude towards a certain group, but a person's perception or thinking about the world as a whole, an attitude he labeled "essentialism."

In reference to Allport, Haslam, Rothschild, and Ernst (2000) wanted to determine if essentialist beliefs are associated with prejudice towards blacks, women, and gay men. The first thing they found out was that people typically rate gender and race highly on the natural kind factor, yet rate sexual orientation highly on the entitivity factor. Thus, these categories are not essentialized in the same way. On the "natural kind" factor, the scores for blacks and women correlated with each other but did not correlate with scores for gays. On the "entitivity" factor, scores for blacks and women correlated, but they were uncorrelated with the scores for gays. This suggests that Gordon Allport was mistaken. There are no underlying essentialistic attitudes that lead to prejudice rather; people, essentialize social categories in different ways.

In this same study, Haslam. et. al. (2000) measured various forms of prejudice. They found that racism and sexism were not associated with essentialism, but anti-gay

prejudice was associated with certain aspects of essentialism. However, these prejudices include essentialist and non-essentialist beliefs. For example, those prejudiced against gays think of the category as discrete and inductively potent (essentialistically), but also as mutable and unnatural (non-essentialistically).

Haslam and Ernst (2000) examined whether people think essentialistically about mental disorders and, if so, whether essentialistic beliefs guide their inferences about these disorders. Participants were asked to read a hypothetical article that stated that new scientific studies were beginning to uncover many untruths and resolve many controversies about some mental disorders. The participants were asked how they thought about the disorders and how the scientific breakthroughs may or may not have changed their opinions of the disorders.

Each hypothetical article had five sections. These included (1) the disorder's criteria (2) a controversy involving two opposing views about the disorder and (3) new scientific evidence found in favor of one of the views, which was the manipulation in this study. These views were essence related beliefs, namely discreteness immutability, naturalness, informativeness, and uniformity.

As stated, each hypothetical article was a summary of scientific findings claiming to resolve a controversy in favor of an essentialist position. For example, controversies involving *naturalness* were reported to have yielded to evidence of biological causation, such as the demonstration that specific genes produce the disorder's symptoms. Controversies involving *uniformity* were presented as having been settled by evidence contradicting the existence of proposed subtypes of the disorder and demonstrating the close resemblance of all of its cases.

Other sections in the hypothetical article included (4) questions asking participants to rate the scientific data and how plausible it was to them and (5) eight questions asking how the scientific evidence did or did not change their view of the disorder. These eight questions were different elements of essentialism, namely informativeness, historical invariance, discreteness, uniformity, immutability, necessary features, inherence, and naturalness.

Results showed that the manipulation of one essence-related belief produced further essentialist inferences, and that essentialist beliefs are used when people think and interpret mental disorders. For example, when participants were told that the disorder was difficult to cure (immutable), they were more likely to infer that is was biologically based, and that people who had the disorder were similar to one another (homogenous). These findings indicate that essentialist beliefs are connected with one another, and people can be influenced to think essentialistically about psychiatric disorders.

Haslam and Giosan (2002) were interested in how laypeople conceptualize mental disorders compared to how professionals think of mental disorders. Undergraduate students completed questionnaires that contained descriptions of 47 DSM-IV disorders (for example, mental retardation, Major Depressive Disorder, Bipolar I Disorder, and Panic Disorder) and conditions that are not disorders (i.e. recurrent adultery, obscene phone-calling, gluttony, chronic lying, and hypothyroidism). Participants rated the conditions on a number of items assessing features proposed as elements of the definition of mental disorder in the professional literature.

Out of the 47 DSM-IV disorders, participants believed that 32 were actually mental disorders. Of the 21 non disorders, participants believed that only four were

disorders. Factor analyzing the results produced three interpretable factors. The first factor was social deviancy, in which the person has conflict with society. This is similar to the anti-psychiatrists' views of mental disorders (Szasz, 1974). The second factor was harmful dysfunction, where some natural function is not operating as it was supposed to and this failure is causing distress. This factor is identical with a famous theory about the nature of mental disorders proposed by Jerome Wakefield (1992; 2000). The third factor was oddness and peculiar behavior.

In a subsequent report on this study, Haslam (2000) claims that if participants believed that a disorder is biologically caused, then they automatically inferred that it is not the person's fault that he or she suffers from the disorder, it is not a character flaw, it is not simply a form of socially deviant conduct, and it is not under the person's control. Participants also believed that biologically caused conditions were culturally universal and more distinct from normality than conditions believed to be socially or environmentally caused. Furthermore, conditions thought to be biologically caused were assumed to be more severe, and thought to produce more impairment and emotional distress (Haslam, 2000).

Symptom Disorders versus Personality Disorders

The Diagnostic and Statistical Manual of Mental Disorders (DSM) evolved from statistical record keeping in psychiatric hospitals in the early 1900s. After World War II, a more detailed diagnostic system was develop and piloted by the Armed Forces. The American Psychiatric Association revised this system and published it as the DSM in 1952. It was revised in 1968 and then more radically revised in 1980. Since the 1980 version, patients were categorized by either meeting or not meeting certain criteria for a

diagnosis. It is not necessary that a patient meet all criteria, rather a certain number of criteria must be met for a given disorder to be present.

The DSM classifies mental disorders on a multi-axial system. Primarily of concern to this study is the Axis I and Axis II distinction. Axis I includes clinical/symptom disorders and other conditions that may be a focus of clinical attention. For example, Generalized Anxiety Disorder is coded on Axis I and has symptoms such as frequent worrying, difficulty in controlling the worry, feeling restless and irritable, and difficulty concentrating. Symptom disorders are thought to be conditions that people acquire, rather than being part of their personality. Axis II includes personality disorders, personality traits, defense mechanisms, and mental retardation. For example, Paranoid Personality Disorder is coded on Axis II. This disorder is characterized by distrustfulness and suspiciousness of others, suspicions that others are exploiting or harming the person, reluctance to confide in others due to unwarranted fears, and holding grudges. Personality disorders are thought to be inherent in people (i.e., part of who they are).

The reason for separating the disorders in this way is to ensure that consideration will be given to the possible presence of an underlying personality problem that might otherwise be overlooked when attention is directed to the Axis I disorders. For example, being chronically suspicious and non-trusting of others might be an important factor in understanding a particular case of anxiety.

In contrast to the DSM model, many psychologists believe that there is limited justification for separating personality disorders from the symptom disorders classified on Axis I. These psychologists believe placement of the disorders is arbitrary and inconsistent. Clark, Watson, and Reynolds, (1995) argue that some Axis I symptom

disorders have personality disorder like features. For example, people who suffer from Dysthymic Disorder feel depressed almost everyday, for the majority of the day, have a poor appetite, feel fatigued, find it difficult to make decisions, and experience difficulty initiating and maintaining sleep. They also feel a sense of hopelessness and helplessness about life, and have chronic feelings of guilt. People who have Depressive Personality Disorder, a disorder that was proposed for the DSM-IV, suffer from many of the same symptoms as people with Dysthymic Disorder, making it difficult to distinguish between an Axis I symptom disorder and an Axis II personality disorder.

There has been considerable debate regarding the difference between symptom disorders which are coded on Axis I and Axis II personality disorders/characteristics which closely resemble mood disorders. In the first edition of the DSM, three broad categories of mental disorders were proposed. As noted by Westen et al. (2002) these categories included psychoses, personality disorders, and psychoneuroses, all of which included depressive symptomatology. The common themes in the DSM-I and DSM-II were the reliance on etiological theories as a basis for taxonomic organization. For example, depression resulting from early childhood experiences constituted a subcategory of mood disorder.

The DSM-III of 1980 shifted from the etiological approach to focus on directly observable phenomena. Researchers accomplished this by developing specific criteria and interviews to assess these criteria (i.e., symptoms, duration, and exclusion specifications) with the aim of providing an empirical basis for distinctions among subtypes of depression. According to Westen et. al. (2002), this version of the DSM also deleted all personality disorder diagnoses characterized primarily by depression, thereby

confining depressive symptomatology to Axis I. This resulted in continuing debate about the existence of a depressive personality style that meets all criteria for a personality disorder.

According to Westen, Heim, Morrison, Patterson, and Campbell (2000) the personality disorders workgroup for the DSM-IV believed that Depressive Personality Disorder should be included and coded on Axis II. They also thought that it could be differentiated from Dysthymic Disorder. It has been argued that Dysthmic Disorder is an overly broad category that includes both mild affective disorders and depressive personality traits. To support their hypothesis, the workgroup developed new criteria for Depressive Personality Disorder and showed that it could be differentiated from Dysthymic Disorder. They did this by developing diagnostic criteria with a focus on psychological symptoms as opposed to physical symptoms. For example, pessimism and brooding rather than insomnia. In response to these changes, the mood disorders workgroup subsequently altered the diagnosis of Dysthmic Disorder by adding criteria with a psychological focus, such as pessimism, and claimed Depressive Personality cannot be distinguished from the new Dysthymia criteria. This created a great deal of tension among the committees which was resolved by publishing proposed criteria for both Depressive Personality Disorder and alternative criteria for Dysthymic Disorder in the DSM-IV appendix.

The debate continues. According to Phillips, Hirschfeld, Shea, and Gunderson (1993), Depressive Personality Disorder (DPD) was considered for inclusion in the DSM-IV because its omission has led to significant controversy between mental health professionals, and because increasing evidence that Axis I and Axis II disorders may be

biologically linked. This theorized biological link is known as the spectrum disorder concept. Phillips et al. maintain that Depressive Personality Disorder should remain a separate diagnosis from Dysthymic Disorder for several reasons. One reason includes age of onset, whereas Depressive Personality Disorder has an early onset, Dysthymic Disorder can begin at any age. Another reason is the course of the disorders. Depressive Personality Disorder is chronic and persistent while Dysthymic Disorder can remit. In addition, Depressive Personality Disorder is characterized by personality traits (e.g., pessimism, given to worry, low self esteem) rather then symptoms.

On the other hand, McClean and Woody (1993) question whether these disorders should be separated into different diagnoses. They note that in the DSM-IV *alternative* criteria, criterion B for Dysthymic Disorder is almost an exact copy of the criterion for Depressive Personality Disorder. Thus, it is likely that DSM-III-R Dysthymic Disorder criteria and DSM-IV criteria for Depressive Personality Disorder may assess the same disorder.

Statement of the Problem

Attribution theories describe how people make inferences about the causes of human behavior (Kagan & Seagal, 1991). One way of explaining behavior is to attribute it to dispositional or *internal* factors. For example, if someone is a successful lawyer, has a nice home and great automobile, the success could be the result of internal attributes, such as intelligence or motivation. Another way of explaining behavior is to attribute it to situational or *external* factors. For example, a successful lawyer may have attended a prestigious college, or may have just been lucky.

Mental disorders can be classified as *personality* disorders or *symptom* disorders. Personality disorders usually reflect a person's *internal* attributes. Personality traits are the ultimate internal factors in attribution theory. As mentioned in the review of literature, many people have the tendency to view organisms and diseases essentialistically, usually as the result of some underlying casual factor. This is referred to as the essentialist bias. Since personality disorders are considered internal factors, they are likely to be essentialized in some way.

Other mental disorders can be categorized as symptom disorders. These disorders may be considered temporary, like suffering from the flu. Someone with the flu will eventually become well. The biological theory of psychiatric disorders has taught people that symptom disorders are disease entities, and therefore have internal attributes, thus, they may also be essentialized.

Increasingly, related disorders are conceptualized as falling on a continuum or a spectrum. For example, in the Schizophrenia family, Schizotypal Personality Disorder is thought of as a mild disorder on the spectrum as it represents vulnerability for Schizophrenia. Schizophrenia proper is considered to lie on the other, more severe, end of the spectrum.

The spectrum disorder model of schizophrenia theory has lead researchers to speculate that other kinds of personality disorders might also represent vulnerabilities for Axis I disorders. For example, is it possible that someone diagnosed with Depressive Personality Disorder might have a greater chance of developing an Axis I mood disorder? Klein, Clark, Dansky, and Margolis (1988) found that patients with Depressive Personality Disorder had more severe depression than individuals without the disorder (in

Phillips et al. 1993). A "spectrum" disorder notion ranging from Depressive Personality Disorder to Major Depressive Disorder is similar to the above noted schizophrenia spectrum.

These considerations raise questions about the advantages and disadvantages of viewing a personality style as a mental disorder. Psychiatrists have debated whether Depressive Personality Disorder and Dysthymic Disorder are the same disorder, or different disorders with overlapping symptoms. Zachar (2000) has noted that categories of psychological disorders are practical kinds, rather than natural kinds. By this he means that scientific professionals adopt certain classification systems if they are useful to them, and then evaluate classifications based on their practical consequences. Assuming that Depressive Personality Disorder and Dysthymic Disorder overlap in many ways, an important question is whether it makes any practical difference whether we label the condition a *personality* disorder or a *symptom* disorder. Do the names and descriptions of the disorders themselves lead people to think differently about those who suffer from them?

In this study, the practical implications I will explore involve asking if Dependent Personality Disorder and Dysthymic Disorder are essentialized in different ways. In addition, the tendency to essentialize will also be investigated with respect to whether a disorder is claimed to have a biological or psychology etiology. The following hypotheses are made:

(1) Depressive personality disorder will be rated as more essentialistic than Dysthymic Disorder because an individual's personality is usually thought of as permanent and not easily changed;

(2) A depressive disorder that is "biologically caused" should be rated as more essentialistic than a depressive disorder that is "psychologically caused;"

(3) Psychologically based disorders will be rated as more mutable than biologically-based disorders;

(4) In terms of stigmatization issues, biologically caused Depressive Personality Disorder will be the most stigmatized of all disorders and psychologically caused Dysthymic Disorder will be the least stigmatized.

Method

Participants

One hundred and twelve undergraduate students (85% women and 15 men, mean age = 23 years) participated in this study. Fifty five percent of participants were Nursing students and 20% were Psychology students. Participants were given an informed consent form (Appendix II) and told that their participation was voluntary and they were free to withdraw at any time without penalty.

Instruments

Essentialist beliefs were measured by Haslam's (2000) Essentialist Beliefs Scale (EBS). This scale contains 8 items measuring essentialist beliefs. These beliefs are (1) discreteness, (2) uniformity, (3) informativeness, (4) naturalness, (5) immutability, (6) stability, (7) inherence, and (8) necessity. The scale has to be slightly re-written for each domain being assessed. The EBS items are scored on an 8-point Likert scale and two of them are reverse scored. The 8 items are summed to create a total score. A higher score indicates a more essentialist conceptualization. For example, the item assessing uniformity states, *How uniform is Dysthymic Disorder? If uniform, people who have*

Dysthymic Disorder are very similar to one another; they have many things in common. If diverse, its members differ greatly from one person to another, and they do not share many characteristics.

The EBS questionnaires used in this study consisted of a description of a natural kind, a non natural kind, and an Axis I and Axis II disorder. In the natural kind category, the participant read and answered questions regarding a *Tiger*. For the non natural kind, the participants responded to essentialist questions about a *Democrat*. Every participant received both the Tiger and the Democrat questionnaires. Only then were participants asked to make decisions about psychiatric categories. Reliability coefficients for the current sample are as follows: Tiger $\alpha = 0.75$, Democrat $\alpha = 0.64$, and psychiatric disorders $\alpha = 0.65$.

On the Depressive Personality Disorder questionnaire and the Dysthymic Disorder questionnaire, the participant was given a brief summary of an individual and this person's current symptoms. A person with a gender neutral name was described as experiencing depressed mood, no energy, difficulty making decisions, feelings of hopelessness and pessimism. The participant was told the individual visited a professional and described these problems. One group of participants was told that the person has Depressive Personality Disorder; it is just part of who they are. The second group was told the person suffers from a condition called Dysthymic Disorder. In addition, participants were told that the disorders were either (1) biologically caused or (2) psychologically caused.

Procedure

Participants were told that this study will explore what people think about psychiatric disorders. Participants completed an informed consent form and were told that participation is voluntary and they may withdraw from the study at any time (see Appendix VIII). The nature of the dependent variable required people to make judgments about complex topics. In order to educate participants about the dependent variable, they were asked to make a judgment about an unambiguous natural kind (e.g., Tiger) and an unambiguous non-natural kind (Democrat).

There were four different forms of the questionnaire. Each of the four forms contained Tiger (see Appendix I) and Democrat (see Appendix II) questionnaires, as well as a demographics form (see Appendix VII). Each participant made a judgment about only *one* disorder and that was *either* biologically caused or psychologically caused. Some participants received the Tiger and Democrat questionnaires, a demographics sheet, and a *Depressive Personality Disorder biologically* caused (see Appendix IV). Some participants received the Tiger and Democrat questionnaires, a demographics sheet, and *Depressive Personality Disorder psychologically* caused (see Appendix III). Some participants received the Tiger and Democrat questionnaires, demographics sheet, and *Dysthymic Disorder biologically* caused (see Appendix V). Some participants received the Tiger and Democrat questionnaires, demographics sheet, and *Dysthymic Disorder psychologically* caused (see Appendix VI).

Results

The results will be presented in three sections. In section one, initial analyses regarding assumptions underlying the study will be conducted. Section two presents the

analyses of the hypotheses. In section three, additional analyses regarding personal psychiatric history will be examined.

Analysis of Dependent Variable Training

To begin, we examined the attempt to teach participants about essentialist versus non-essentialist categories. The differences between the categories of Tigers and Democrats with respect to essentialist beliefs were examined using a paired-sample t-test. Results of this analysis are presented in Table 1.

Table 1

Paired Sample t-test with Tigers and Democrats as the Group Variable and Essentialist Beliefs as the Dependent Variable (N=112)

Tigers		**Democrats**					
m	sd	m	sd	SS	df	Error	t-obs
50.4	9.6	**36.5**	8.3	11248.3	111	14267.0	11.39*

* $p < .001$

According to Table 1, Tigers were rated as being more essentialistic than Democrats (t (111) =11.39, p = .000).

Analysis of Hypotheses

To test hypotheses one and two, a 2 X 2 factorial was used. Hypothesis #1 stated that Depressive Personality Disorder would be more essentialized than Dysthymic Disorder. Hypothesis #2 stated that a depressive disorder that is "biologically caused" should be more essentialized than a depressive disorder that is "psychologically caused."

The independent variables were condition (Dysthymic Disorder versus Depressive Personality Disorder) and presumed etiology (Biological versus Psychological). The results are presented in Table 2.

Table 2

A 2 (Condition) X 2 (Etiology) Analysis of Variance with Essentialist Beliefs as the Dependent Variable (n = 112)

	Condition			
	Dysthymic Disorder		*Depressive Personality Disorder*	
Etiology	mean	sd	mean	sd
Biological	**44.0**	8.5	**39.8**	7.6
Psychological	**38.0**	5.2	**42.0**	9.5

Effect	Sum of Squares	df	F-obs
CONDITION	.38	1	.006
ETIOLOGY	98.4	1	1.537
COND*ETIOLGY	452.5	1	7.063*
ERROR	6919.2	108	
TOTAL	7472.4	111	

* p = .009

According to Table 2, there were no significant main effects for condition or etiology; however, an interaction effect between condition and etiology was found. Follow up t-tests examined the simple effects. These tests indicated that in the Dysthymic Disorder condition, biological disorders were more essentialized than psychological disorders (t (54) = 3.20, p=.002). This is contrary to expectations and will be reviewed in the Discussion section.

Hypothesis three stated the psychologically based disorders will be rated of as more mutable than biologically-based disorders. Hypothesis #3 was tested using a 2X2

factorial design. The relevant independent variable was presumed etiology (Biological versus Psychological). The dependent variable was immutability. The results are presented in Table 3.

Table 3

A 2 (Condition) X 2 (Etiology) Factorial Design with Immutability as the Dependent Variable (n = 112)

	Condition			
	Dysthymic Disorder		*Depressive Personality Disorder*	
Etiology	mean	sd	mean	sd
Biological	**5.1**	2.2	**5.3**	1.8
Psychological	**4.2**	1.8	**4.9**	1.9

Results indicated no main effect ($F(1, 110) = 3.07$, $p=.08$). There was a trend toward a psychiatric disorder with a presumed biological etiology being considered less mutable ($p = .08$).

Hypothesis four stated that in terms of stigmatization issues, biologically caused Depressive Personality Disorder will be the most stigmatized of all disorders and psychologically caused Dysthymic Disorder will be the least stigmatized. To test hypothesis #4, a 2 X 2 factorial design was used. The independent variables were condition (Dysthymic Disorder versus Depressive Personality Disorder) and presumed etiology (Biological versus Psychological). The dependent variable was stigmatization. The results are presented in Table 4.

Table 4

A 2 (Condition) X 2 (Etiology) Factorial Design with Stigmatization as the Dependent Variable (n = 112)

	Condition			
	Dysthymic Disorder		*Depressive Personality Disorder*	
Etiology	mean	sd	mean	sd
Biological	**9.6**	2.4	**9.7**	1.6
Psychological	**9.4**	2.4	**9.5**	2.3

According to Table 4, there were no main effects for condition (F (1, 109) =.116, p=.73), and no main effects for etiology (F (1, 109) =.20, p=.65). Nor was there an interaction effect.

Additional Analyses

The differences between the categories of Tigers, Democrats, and Psychiatric Disorders with respect to essentialist beliefs were examined using a repeated measures analysis of variance. Results of this analysis are presented in Table 5.

Table 5

Repeated Measures Analysis of Variance with Tiger, Democrat, and Psychiatric Disorders as the Group Variable and Essentialist Beliefs as the Dependent Variable (N=112)

Tigers		**Psychiatric Disorders**		**Democrats**					
m	sd	m	sd	m	sd	SS	df	Error	F-obs
50.4	9.6	**41.1**	8.2	**36.5**	8.3	11248.3	2	14267.0	87.5*

* $p < .001$

According to Table 5, there were overall differences between the categories with respect to essentialist thinking. To conduct follow ups, paired-sample t-tests were used. According to these t-tests, tigers were thought of as being more essentialistic than Democrats (t (111) =11.39, p = .000) and Psychiatric Disorders (t (111) = 8.68, p = .000). Psychiatric Disorders were considered significantly more essentialistic than Democrats (t (111) = 5.19 and p = .000).

To examine essentialist beliefs about psychiatric disorders among those who had or had not sought help for a psychiatric disorder, a 2 X 2 ANOVA was conducted. The independent variables were condition (Dysthymic Disorder versus Depressive Personality Disorder) and help (the participant *had* sought help versus the participant *had never* sought help). The dependent variable was essentialist beliefs about psychiatric disorders. The relevant means are presented in Table 6.

Table 6

A 2 (Condition) X 2 (Help) Factorial Design with Essentialist Beliefs as the Dependent Variable (n = 112)

	Condition			
	Dysthymic Disorder		*Depressive Personality Disorder*	
Help	mean	sd	mean	sd
Yes	**41.4**	10.3	**40.7**	12.8
No	**41.3**	7.4	**41.0**	8.3

According to the ANOVA, there was no main effect for help or for condition. Also, there was no interaction effect.

To examine essentialist beliefs regarding biological versus psychological causality among those who had or had not sought help for a psychiatric disorder, a 2 X 2 factorial design was used. The independent variables were presumed etiology (Biological versus Psychological) and help (the participant *had* sought help versus the participant *had never* sought help). The dependent variable was essentialist beliefs about psychiatric disorders. The results are presented in Table 7.

Table 7

A 2 (Etiology) X 2 (Help) Factorial Design with Essentialist Beliefs as the Dependent Variable (n = 112)

	Etiology			
	Biological		*Psychological*	
Help	mean	sd	mean	sd
Yes	**45.5**	10.3	**34.0**	8.9
No	**41.6**	7.9	**40.8**	7.8

Effect	Sum of Squares	df	F-obs
ETIOLOGY	22.9	1	.35
HELP	408.1	1	6.2
ETIOLOGY *HELP	318.6	1	4.9*
ERROR	7053.4	108	
TOTAL	7472.4	111	

*p = .029

According to Table 7, there was an interaction effect (p=.029). Using orthogonal contrasts, it was found that those who sought help and were told that a disorder had a psychological etiology, were less likely than all other groups to rate a disorder as essentialistic.

To examine essentialist beliefs about psychiatric disorders among those whose family members had or had not sought professional help, a 2 X 2 factorial design was used. The independent variables were condition (Dysthymic Disorder versus Depressive Personality Disorder) and Family Help (a member of the participant's *had* sought help versus a member of the participant's *had never* sought help). The dependent variable was essentialist beliefs about psychiatric disorders. The relevant means are presented in Table 8.

Table 8

A 2 (Condition) X 2 (Family Help) Factorial Design with Essentialist Beliefs as the Dependent Variable (n = 112)

	Condition			
	Dysthymic Disorder		*Depressive Personality Disorder*	
Family Help	mean	sd	mean	sd
Yes	**40.9**	8.7	**40.3**	10.6
No	**41.7**	7.1	**41.3**	7.9

According to the ANOVA, there were no main effects and no interaction effects.

To examine essentialist beliefs about biologically versus psychologically caused psychiatric disorders among those whose family members had or had not sought professional help , a 2 X 2 factorial design was used. The independent variables were etiology (Biological versus Psychological) and Family Help (a member of the participant's *had* sought help versus a member of the participant's *had never* sought help). The dependent variable was essentialist beliefs about psychiatric disorder. The results are presented in Table 9.

Table 9

A 2 (Etiology) X 2 (Family Help) Factorial Design with Essentialist Beliefs as the Dependent Variable (n = 112)

	Etiology			
	Biological		*Psychological*	
Family Help	mean	sd	mean	sd
Yes	**44.3**	9.7	**37.9**	8.3
No	**41.2**	7.6	**41.8**	7.6

Effect	Sum of Squares	df	F-obs
ETIOLOGY	4.1	1	.062
FAMHELP	212.0	1	3.25
ETIOLOGY*FAMHELP	310.1	1	4.8*
ERROR	7053.4	108	
TOTAL	7472.4	111	

*p = .031

According to analysis in Table 9, no significant differences were found for the main effects of etiology or family help; however, an interaction effect was found (p = .031). According to post-hoc t-tests, participants who reported having a family member who had sought help for a psychiatric disorder, were more likely to essentialize the disorder if it was assigned a biological etiology ($t(37) = 2.17$, $p=.03$).

Further analyses will become relevant in the Discussion section. These analyses are presented in Table 10.

Table 10

t-Tests with Sharp and Informative as the Dependent variables and Etiology (Biological versus Psychological) as the Independent Variable

	Biological					*Psychological*				
	mean	sd	df	t	Sig.	mean	sd	df	t	Sig
Sharp	**5.7**	2.1	54	5.6	.035	**4.5**	1.6	54	2.2	.030
Informative	**5.9**	1.8	54	2.7	.007	**4.7**	1.4	54	2.8	.006

Although the essentialist beliefs scale has to be taken as a whole, analysis at the item level suggests that biologically based conditions were considered more sharp and informative than psychologically based conditions, according to Table 9. Sharp means that a people belong to a category or they do not. Informative means that if people belong to a certain category, then we know many things about them. For example, if a person belongs to the category of Depressive Personality Disorder, which is considered sharp, we would know that this category is clear-cut, definite, and of an "either/or" variety. If the same category is considered informative, then being in that category would allow people to make many judgments about them.

Discussion

The discussion will examine the initial analyses, the analysis of the hypotheses, and the additional analyses. Limitations and directions for future research will also be explored.

Psychiatric Disorders Compared to Other Categories

When comparing Tigers, Democrats, and Psychiatric Disorders in regards to essentialist beliefs, this study indicated that Tiger, which represents a natural kind, was the most essentialized category. Democrat, which represents a non-natural kind, was found to be the least essentialized. Psychiatric disorders fell between these two categories.

This is an interesting finding, as some theorists (i.e.,Wakefield, 1999) believe that psychiatric disorders are natural kinds and other theorists (i.e., Zachar, 2000) consider them to be practical kinds. The present study shows that laypersons did not show a preference, placing psychiatric disorders somewhere between the natural kind and the non-natural kind categories. Theoretically, the Essentialist Beliefs Scale should discriminate between a natural kind and a non-natural kind. This study showed that the EBS, did indeed, make this discrimination.

Essentialism and Psychiatric Disorders

When assessing essentialist beliefs in regards to psychiatric disorders, there was no difference between Axis I symptom disorders and Axis II personality disorders. One possible reason for finding no significant difference between Axis I and II may be that the labels (i.e., Dysthymic Disorder and Depressive Personality Disorder) used in this study were too subtle for participants to think differently about them. Laypersons may not have well-defined notions of conditions versus personality traits. Another reason may be that since both disorders are behaviorally similar, with identical presentations and symptoms, people did not assume one to be different from the other.

It was hypothesized that a disorder which was biologically caused would be more essentialized than psychologically-caused disorders; however, no significant difference was found. Laypersons may think of a psychologically-based disorder as being just as innate, stable, and debilitating as a biologically-based disorder. They are also likely to perceive a psychiatric disorder as unfortunate and adverse, and give limited thought to the etiology of the disorder.

An interaction effect was found in which symptom disorders with a biological etiology were considered more essentialistic than symptom disorders with a psychological etiology. It could be that laypersons tend to think of psychologically caused conditions as being more flexible than biologically caused conditions. As seen in Table 9, analysis at the item level suggests that these differences are considered to be driven by the items for sharpness and informativeness. Biologically based symptoms disorders are considered conditions that people have or they don't have it, and if you know the person has the disorder, people believe you know a lot of others things about them.

It was expected that psychologically-based disorders would be thought of as more mutable than biologically-based disorders; however, this was not the case. We found no significance, perhaps due to the reasons described above. If laypersons think of psychologically-based disorders along the same lines as biologically-based disorders (where their inferences are dominated by symptoms rather than hypotheses about causes) then it is not surprising that they would not consider one to be more mutable than the other.

Regarding stigmatization, we expected that a biologically caused personality disorder should be the most stigmatized and a psychological- based symptom disorder should be the least stigmatized. Given that laypersons did not consider Axis I and Axis II disorders to be significantly different from one another, one disorder was not more stigmatized than the other, regardless of the etiology.

Effects of Personal History on Judgments about Psychiatric Disorders

Participants who themselves *had* sought help for a psychiatric disorder and were told that the disorder they read about was biologically caused, thought of the disorder as being more essentialistic than psychologically-caused disorders. There are two possible explanations for this finding. The first explanation relates to evolving folk conceptions of psychiatric disorders. Many years ago, a person was considered weak minded, "crazy," or even possessed by evil spirits if he or she exhibited atypical and strange behaviors. Many of these people were placed into psychiatric hospitals, many of which resembled prisons, where they did not receive proper treatment. In contrast to these historical conditions, current societal trends which include television commercials, contain messages that it is "okay" to suffer from depression, that millions of people suffer from this disorder, and that it is not the person's fault that they develop these conditions. In addition, these commercials mention evidence of a biological cause to depression, as they note that it is a "chemical imbalance in the brain." With the help of the media, people now think that psychiatric disorders are like any other biologically based disease (e.g., cancer, heart disease, diabetes), which are often considered to be essentialistic conditions. This may also account for the previously explored finding that no relation exists between stigmatization and essentialistic thinking.

An alternative explanation is that participants de-essentialized a disorder if they had previously sought help for a psychiatric disorder, in an attempt to see their problems as less fixed. In fact, there is evidence that this explanation is likely the better of the two. For those who sought help in the past, psychologically based disorders were rated very similar to the non-essentialized category of Democrat. In other words, the manipulation did not make participants think of biologically based conditions as more essentialist, rather they thought of psychologically based conditions as less essentialistic.

We also found an interaction effect between participants whose family members had sought help for a psychiatric disorder and etiology. Participants who reported having a family member who had sought help were more likely to essentialize the disorder if it was assigned a biological etiology, rather than a psychological etiology. It is likely that those with a family history of psychiatric disorders also de-essentialized psychiatric disorders. Interestingly, psychologically caused disorders had a slightly higher mean for those who reported a family history of mental illness than for those who reported a personal history. It may be more important to see our own problems as fluid than it is to see family member problems as fluid.

Limitations of the Study

One limitation of this study is the number of participants. More participants are needed to provide increased power to the significant findings with respect to the having sought help variable.

A second limitation of this study is the sample, which primarily consisted of undergraduate nursing students. It is not clear how familiar these participants were with psychiatric disorders or psychological terminology; however, they served as an

informative group of laypersons, given that many of them will likely be employed in a health related profession.

A third limitation of this study is the Essentialist Beliefs Scale. The internal consistency for this scale was quite low. The scale may improve with revision by including additional items, thereby increasing the reliability. Transforming the scale so that each pole is assessed separately may make the test less confusing to participants. This limitation is furthered by the use of a stigmatization scale that lacked validation.

A fourth limitation is that many participants were uncomfortable with the questionnaires. Essentialism is a difficult concept to comprehend, and although participants were taught how to think essentialistically about categories by completing the Tiger and Democrat questionnaires, it was obvious they did not fully understand the concept. Many participants grimaced, shook their heads, and appeared confused when reading questions.

Directions for Future Research

Upon future research, it is suggested that an improved scale for measuring essentialist beliefs be developed. As mentioned above, this scale could include more items which may lead to an increase in alphas. For example, the revised scale could ask participants to judge a disorder on mutability by including specific questions on mutability and immutability.

Another suggestion would be to include a sample of mental health professionals (e.g., psychiatrists, psychologists) as participants. They are much more informed about psychiatric terminology and the differences between Axis I and Axis II disorders.

Although the Axis I versus Axis II distinction does not make a significant difference for laypersons, it would likely be different for psychologists and psychiatrists.

A final suggestion would be to compare essentialist thinking with other spectrum disorders with Axis I and Axis II possibilities (i.e., Cyclothymic Disorder versus Bipolar Disorder or Generalized Anxiety Disorder versus Anxious Personality Disorder).

Conclusions

This study explored whether participants thought of Dysthymic Disorder and Depressive Personality Disorder differently, and specifically if they are more or less subject to the essentialist bias. Some researchers believe that these disorders are so similar they cannot reliably be separated; others believe that they can be separated. Zachar (2000) has argued that the decision on whether they should be separated should be based on whether there are any practical differences in using one label versus the other. These differences, of course, would include choosing different treatment strategies, but would also include differences in stigmatization and what the disorder means to those so labeled. This study explored the latter kind of practical differences. The results of this study indicate that for the layperson, the Axis I versus Axis II distinction is not by itself of much importance; however, it becomes important, particularly in the context of what people are told about is the causes of disorders.

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Appendix I

*ON A FIRST TRIP TO THE ZOO, CASEY SAW A NEW KIND OF ANIMAL. CASEY'S PARENTS TOLD CASEY THAT THE ANIMAL WAS A **TIGER**.*

You are being given eight questions about **Tigers**. Based on what you know, please answer the following questions about Tigers.

1. How *sharp* is the category of Tiger? If sharp, membership is clear-cut, definite, and of an "either/or" variety; animals are either tigers or they are not. If fuzzy, animals belong to the category in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut Either/Or			Slightly Clear-cut	Slightly Fuzzy			Very Fuzzy Indefinite

2. How *uniform* is the category of Tiger? If uniform, animals that are tigers are very similar to one another; they have many things in common. If diverse, Tigers differ greatly from one Tiger to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse Differing			Slightly Diverse	Slightly Similar			Very Uniform Similar

3. How *informative* is being a Tiger? If informative, it allows people to make many judgments about animals who are Tigers. In other words, knowing that the animal is a Tiger tells us a lot about that animal. If uninformative, knowing that an animal is a Tiger does not tell us a lot about the animal.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments Very Uninformative			Slightly Uniform	Slightly Informative			Many judgments Very Informative

4. How *natural* is the category Tiger? How artificial is the category of Tiger?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial			Slightly Artificial	Slightly Natural			Very Natural

5. How *immutable* is being a Tiger? If immutable, it is difficult for an animal who is a Tiger to become an animal who is not a Tiger. If mutable, animals who are Tigers can be changed into nonTigers.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed Very Mutible			Slightly Mutible	Slightly Immutable			Not easily changed Immutable

6. How *stable* are Tigers? If stable, Tigers have always existed and their characteristics have not changed much throughout history. If Tigers are less stable, their characteristics have changed substantially over time, and may not always have existed.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Unstable over time			Slightly	Slightly			Stable over time
Changed much			Unstable	Stable			Changed little

7. How *inherent* is being a Tiger? If inherent, Tigers have an underlying reality; although Tigers have similarities and differences on the surface, underneath they are basically the same. If not inherent, Tigers have similarities and differences on the surface, but underneath they can be quite different.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Underlying reality			Slightly	Slightly			No underlying reality
Very much the same			the same	different			Very different

8. Do Tigers have *necessary features*? If so, without certain characteristics an animal cannot be a Tiger. Or do Tigers lack features and characteristics that are necessary for membership?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Many Necessary features			Moderate	Minimal			No necessary features
or characteristics			Features	Features			or characteristics

Appendix II

*PAT HAS BEEN INTERESTED IN POLITICS FOR MANY YEARS. PAT VOTED FOR BILL CLINTON AND JIMMY CARTER. PAT IS A **DEMOCRAT**.*

You are being given eight questions about **Democrats**. Based on what you know, please answer the following questions about Democrats.

1. How *sharp* is the category of Democrat? If sharp, membership is clear-cut, definite, and of an "either/or" variety; people are either democrats or they are not. If fuzzy, people belong to the category of Democrat in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut Either/Or		Slightly Clear-cut		Slightly Fuzzy			Very Fuzzy Indefinite

2. How *uniform* is the category of Democrat? If uniform, people who are Democrats are very similar to one another; they have many things in common. If diverse, Democrats differ greatly from one to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse Differing		Slightly Diverse		Slightly Similar			Very Uniform Similar

3. How *informative* is being a Democrat? If informative, it allows people to make many judgments about other people who are Democrats. In other words, knowing that a person is a Democrat tells us a lot about that person. If uninformative, knowing that someone is a Democrat does not tell us a lot about the person.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments Very Uninformative		Slightly Uniform		Slightly Informative			Many judgments Very Informative

4. How *natural* is the category Democrat? How artificial is the category of Democrat?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial		Slightly Artificial		Slightly Natural			Very Natural

5. How *immutable* is being a Democrat? If immutable, it is difficult for a person who is a Democrat to become a person who is not a Democrat. If mutable, a person who is a Democrat can be changed into nonDemocrat.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed Very Mutible		Slightly Mutible		Slightly Immutable			Not easily changed Immutable

6. How *stable* are Democrats? If stable, people who are Democrats have existed and their characteristics have not changed much throughout history. If Democrats are less stable, their characteristics have changed substantially over time, and may not always have existed.

1	2	3	4	5	6	7	8
Very Unstable over time Changed much			Slightly Unstable	Slightly Stable			Stable over time Changed little

7. How *inherent* is being a Democrat? If inherent, being a Democrat has an underlying reality; although Democrats have similarities and differences on the surface, underneath they are basically the same. If not inherent, Democrats have similarities and differences on the surface, yet underneath they can be quite different.

1	2	3	4	5	6	7	8
Underlying reality Very much the same			Slightly the same	Slightly different			No underlying reality Very different

8. Does a person who is a Democrat have *necessary features*? If so, without certain characteristics the person cannot be a Democrat. Or do Democrats lack features and characteristics that are necessary for membership?

1	2	3	4	5	6	7	8
Many Necessary features or characteristics			Moderate	Minimal			No necessary features or characteristics

Appendix III

Kris feels depressed almost everyday, for the majority of the day. Kris experiences poor appetite, no energy, difficulty making decisions, low self-esteem, feelings of hopelessness, and pessimism. Kris visited a mental health professional and described these problems. The professional explained that these problems are a part of Kris's personality. It is just what Kris is like. It is called ***Depressive Personality Disorder*** *and is PSYCHOLOGICALLY caused.*

You are being given eleven questions about **Depressive Personality Disorder**. Based on what you know, please answer the following questions about Depressive Personality Disorder.

1. How *sharp* is Depressive Personality Disorder? If sharp, membership is clear-cut, definite, and of an "either/or" variety; people either have Depressive Personality Disorder or they do not. If fuzzy, people have Depressive Personality Disorder in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut			Slightly	Slightly			Very Fuzzy
Either/Or			Clear-cut	Fuzzy			Indefinite

2. How *uniform* is Depressive Personality Disorder? If uniform, people who have Depressive Personality Disorder are very similar to one another; they have many things in common. If diverse, people with Depressive Personality Disorder differ greatly from one person to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse			Slightly	Slightly			Very Uniform
Differing			Diverse	Similar			Similar

3. How *informative* is Depressive Personality Disorder? If informative, it allows professionals to make many judgments about people with this disorder. In other words, knowing that someone has Depressive Personality Disorder tells us a lot about the person. If uninformative, the presence of Depressive Personality Disorder does not tell us a lot about the person.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments			Slightly	Slightly			Many judgments
Very Uninformative			Uniform	Informative			Very Informative

4. How *natural* is Depressive Personality Disorder? How artificial is DPD?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial			Slightly	Slightly			Very Natural
			Artificial	Natural			

5. How *immutable* is Depressive Personality Disorder? If immutable, it is difficult for a person with Depressive Personality Disorder to become a person without Depressive Personality Disorder. If mutable, individuals with Depressive Personality Disorder can be changed into someone without Depressive Personality Disorder.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed			Slightly	Slightly			Not easily changed
Very Mutible			Mutible	Immutable			Immutable

6. How *stable* is Depressive Personality Disorder? If stable it has always existed and its characteristics have not changed much throughout history. If Depressive Personality Disorder is less stable, the characteristics have changed substantially over time, and they may not always have existed.

1	2	3	4	5	6	7	8
Very Unstable over time Changed much			Slightly Unstable	Slightly Stable			Stable over time Changed little

7. How *inherent* is Depressive Personality Disorder? If inherent, Depressive Personality Disorder has an underlying reality; although people with Depressive Personality Disorder have similarities and differences on the surface, underneath they are basically the same. If not inherent, people with Depressive Personality Disorder have similarities and differences on the surface, but underneath they can be quite different.

1	2	3	4	5	6	7	8
Underlying reality Very much the same			Slightly the same	Slightly different			No underlying reality Very different

8. Does Depressive Personality Disorder have *necessary features*? If so, without certain characteristics someone cannot have Depressive Personality Disorder. Or does Depressive Personality Disorder lack features or characteristics that are necessary for membership?

1	2	3	4	5	6	7	8
Many Necessary features or characteristics			Moderate Features	Minimal Features			No necessary features or characteristics

9. If you met Kris in a class at school, your chances of becoming friends with Kris are:

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

10. If you were Kris's supervisor at work and Kris had excelled at work, what are the chances that you would recommend Kris for a promotion that would involve more responsibility?

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

11. If Kris was going to marry a significant other, what do you think their chances for having a long and happy marriage are?

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

Appendix IV

Kris feels depressed almost everyday, for the majority of the day. Kris experiences poor appetite, no energy, difficulty making decisions, low self-esteem, feelings of hopelessness, and pessimism. Kris visited a mental health professional and described these problems. The professional explained that these problems are a part of Kris's personality. It is just what Kris is like. It is called ***Depressive Personality Disorder*** *and is BIOLOGICALLY caused.*

You are being given eleven questions about **Depressive Personality Disorder**. Based on what you know, please answer the following questions about Depressive Personality Disorder.

1. How *sharp* is Depressive Personality Disorder? If sharp, membership is clear-cut, definite, and of an "either/or" variety; people either have Depressive Personality Disorder or they do not. If fuzzy, people have Depressive Personality Disorder in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut			Slightly	Slightly			Very Fuzzy
Either/Or			Clear-cut	Fuzzy			Indefinite

2. How *uniform* is Depressive Personality Disorder? If uniform, people who have Depressive Personality Disorder are very similar to one another; they have many things in common. If diverse, people with Depressive Personality Disorder differ greatly from one person to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse			Slightly	Slightly			Very Uniform
Differing			Diverse	Similar			Similar

3. How *informative* is Depressive Personality Disorder? If informative, it allows professionals to make many judgments about people with this disorder. In other words, knowing that someone has Depressive Personality Disorder tells us a lot about the person. If uninformative, the presence of Depressive Personality Disorder does not tell us a lot about the person.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments			Slightly	Slightly			Many judgments
Very Uninformative			Uniform	Informative			Very Informative

4. How *natural* is Depressive Personality Disorder? How artificial is DPD?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial			Slightly	Slightly			Very Natural
			Artificial	Natural			

5. How *immutable* is Depressive Personality Disorder? If immutable, it is difficult for a person with Depressive Personality Disorder to become a person without Depressive Personality Disorder. If mutable, individuals with Depressive Personality Disorder can be changed into someone without Depressive Personality Disorder.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed			Slightly	Slightly			Not easily changed
Very Mutible			Mutible	Immutable			Immutable

6. How *stable* is Depressive Personality Disorder? If stable it has always existed and its characteristics have not changed much throughout history. If Depressive Personality Disorder is less stable, the characteristics have changed substantially over time, and they may not always have existed.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Unstable over time Changed much			Slightly Unstable	Slightly Stable			Stable over time Changed little

7. How *inherent* is Depressive Personality Disorder? If inherent, Depressive Personality Disorder has an underlying reality; although people with Depressive Personality Disorder have similarities and differences on the surface, underneath they are basically the same. If not inherent, people with Depressive Personality Disorder have similarities and differences on the surface, but underneath they can be quite different.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Underlying reality Very much the same			Slightly the same	Slightly different			No underlying reality Very different

8. Does Depressive Personality Disorder have *necessary features*? If so, without certain characteristics someone cannot have Depressive Personality Disorder. Or does Depressive Personality Disorder lack features or characteristics that are necessary for membership?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Many Necessary features or characteristics			Moderate Features	Minimal Features			No necessary features or characteristics

9. If you met Kris in a class at school, your chances of becoming friends with Kris are:

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

10. If you were Kris's supervisor at work and Kris had excelled at work, what are the chances that you would recommend Kris for a promotion that would involve more responsibility?

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

11. If Kris was going to marry a significant other, what do you think their chances for having a long and happy marriage are?

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

Appendix V

Kris feels depressed almost everyday, for the majority of the day. Kris experiences poor appetite, no energy, difficulty making decisions, low self-esteem, feelings of hopelessness, and pessimism. Kris visited a mental health professional and described these problems. The professional explained to Kris that the problems are due to a condition that Kris has. The condition is called ***Dysthymic Disorder*** *and it is BIOLOGICALLY caused.*

You are being given eleven questions about **Dysthymic Disorder**. Based on what you know, please answer the following questions about Dysthymic Disorder.

1. How *sharp* is Dysthymic Disorder? If sharp, membership is clear-cut, definite, and of an "either/or" variety; people either have Dysthymic Disorder or they do not. If fuzzy, people have Dysthymic Disorder in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut Either/Or		Slightly Clear-cut		Slightly Fuzzy		Very Fuzzy Indefinite	

2. How *uniform* is Dysthymic Disorder? If uniform, people who have Dysthymic Disorder are very similar to one another; they have many things in common. If diverse, people with Dysthymic Disorder differ greatly from one person to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse Differing		Slightly Diverse		Slightly Similar		Very Uniform Similar	

3. How *informative* is Dysthymic Disorder? If informative, it allows professionals to make many judgments about people with this disorder. In other words, knowing that someone has Dysthymic Disorder tells us a lot about the person. If uninformative, the presence of Dysthymic Disorder does not tell us a lot about the person.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments Very Uninformative		Slightly Uniform		Slightly Informative		Many judgments Very Informative	

4. How *natural* is Dysthymic Disorder? How artificial is Dysthymic Disorder?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial		Slightly Artificial		Slightly Natural		Very Natural	

5. How *immutable* is Dysthymic Disorder? If immutable, it is difficult for a person with Dysthymic Disorder to become a person without Dysthymic Disorder. If mutable, individuals with Dysthymic Disorder can be changed into someone without Dysthymic Disorder.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed Very Mutible		Slightly Mutible		Slightly Immutable		Not easily changed Immutable	

6. How *stable* is Dysthymic Disorder? If stable it has always existed and its characteristics have not changed much throughout history. If Dysthymic Disorder is less stable, the characteristics have changed substantially over time, and may not always have existed.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Unstable over time Changed much			Slightly Unstable	Slightly Stable			Stable over time Changed little

7. How *inherent* is Dysthymic Disorder? If inherent, Dysthymic Disorder has an underlying reality; although people with Dysthymic Disorder have similarities and differences on the surface, underneath they are basically the same. If not inherent, members have similarities and differences on the surface, but underneath they are quite different.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Underlying reality Very much the same			Slightly the same	Slightly different			No underlying reality Very different

8. Does Dysthymic Disorder have *necessary features*? If so, without certain characteristics someone cannot have Dysthymic Disorder. Or does Dysthymic Disorder lack features or characteristics that are necessary for membership?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Many Necessary features or characteristics			Moderate Features	Minimal Features			No necessary features or characteristics

9. If you met Kris in a class at school, your chances of becoming friends with Kris are:

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

10. If you were Kris's supervisor at work and Kris had excelled at work, what are the changes that you would recommend Kris for a promotion that would involve more responsibility?

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

11. If Kris was going to marry a significant other, what do you think their chances for having a long and happy marriage are?

1	**2**	**3**	**4**	**5**
extremely poor	poor	fair	good	extremely good

Appendix VI

Kris feels depressed almost everyday, for the majority of the day. Kris experiences poor appetite, no energy, difficulty making decisions, low self-esteem, feelings of hopelessness, and pessimism. Kris visited a mental health professional and described these problems. The professional explained to Kris that the problems are due to a condition that Kris has. The condition is called ***Dysthymic Disorder*** *and it is PSYCHOLOGICALLY caused.*

You are being given eleven questions about **Dysthymic Disorder**. Based on what you know, please answer the following questions about Dysthymic Disorder.

1. How *sharp* is Dysthymic Disorder? If sharp, membership is clear-cut, definite, and of an "either/or" variety; people either have Dysthymic Disorder or they do not. If fuzzy, people have Dysthymic Disorder in varying degrees. It can be stronger or less strong.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Clear-cut Either/Or		Slightly Clear-cut		Slightly Fuzzy		Very Fuzzy Indefinite	

2. How *uniform* is Dysthymic Disorder? If uniform, people who have Dysthymic Disorder are very similar to one another; they have many things in common. If diverse, people with Dysthymic Disorder differ greatly from one person to another.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Diverse Differing		Slightly Diverse		Slightly Similar		Very Uniform Similar	

3. How *informative* is Dysthymic Disorder? If informative, it allows professionals to make many judgments about people with this disorder. In other words, knowing that someone has Dysthymic Disorder tells us a lot about the person. If uninformative, the presence of Dysthymic Disorder does not tell us a lot about the person.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Few judgments Very Uninformative		Slightly Uniform		Slightly Informative		Many judgments Very Informative	

4. How *natural* is Dysthymic Disorder? How artificial is Dysthymic Disorder?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Very Artificial		Slightly Artificial		Slightly Natural		Very Natural	

5. How *immutable* is Dysthymic Disorder? If immutable, it is difficult for a person with Dysthymic Disorder to become a person without Dysthymic Disorder. If mutable, individuals with Dysthymic Disorder can be changed into someone without Dysthymic Disorder.

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Easily changed Very Mutible		Slightly Mutible		Slightly Immutable		Not easily changed Immutable	

6. How *stable* is Dysthymic Disorder? If stable it has always existed and its characteristics have not changed much throughout history. If Dysthymic Disorder is less stable, the characteristics have changed substantially over time, and may not always have existed.

1	2	3	4	5	6	7	8
Very Unstable over time Changed much			Slightly Unstable	Slightly Stable			Stable over time Changed little

7. How *inherent* is Dysthymic Disorder? If inherent, Dysthymic Disorder has an underlying reality; although people with Dysthymic Disorder have similarities and differences on the surface, underneath they are basically the same. If not inherent, members have similarities and differences on the surface, but underneath they are quite different.

1	2	3	4	5	6	7	8
Underlying reality Very much the same			Slightly the same	Slightly different			No underlying reality Very different

8. Does Dysthymic Disorder have *necessary features*? If so, without certain characteristics someone cannot have Dysthymic Disorder. Or does Dysthymic Disorder lack features or characteristics that are necessary for membership?

1	2	3	4	5	6	7	8
Many Necessary features or characteristics			Moderate Features	Minimal Features			No necessary features or characteristics

9. If you met Kris in a class at school, your chances of becoming friends with Kris are:

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

10. If you were Kris's supervisor at work and Kris had excelled at work, what are the changes that you would recommend Kris for a promotion that would involve more responsibility?

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

11. If Kris was going to marry a significant other, what do you think their chances for having a long and happy marriage are?

1	2	3	4	5
extremely poor	poor	fair	good	extremely good

Appendix VII

Please write the answers to the following questions on the lines to the left of the item numbers.

_____1. What is your date of birth?

_____2. What is your gender (1) MALE (2) FEMALE

_____3. What is your race (1) CAUCASIAN (2) AFRICAN AMERICAN (3) HISPANIC (4) ASIAN (5) NATIVE AMERICAN (6) OTHER _____

_____4. Have you ever sought help for a mental disorder? (1) YES (2) NO

_____5. Has anyone in your family ever sought help for a mental disorder? (1) YES (2) NO

_____6. What is your college major?

Appendix VIII

Auburn University at Montgomery
Informed Consent
Psychological Essentialism and the Axis I – Axis II Distinction

Ginny Spaulding (graduate student researcher)
Dr. Peter Zachar (Faculty supervisor)

I am a graduate student at Auburn University Montgomery, and I am inviting you to participate in a study which will be used for the completion of my Master's degree. I am studying how people think about psychiatric disorders. You are being asked to participate because you are currently enrolled in a psychology course. If you agree to participate in this part of the study, you will be asked to read descriptions of some psychiatric disorders and tell us what you think about those disorders. Based on the information you are given. This study will take approximately 25 minutes.

Your participation is voluntary and you may withdraw from this study at any time. There are no risks from participating in this study. Through your participation you will also learn more about how the research process works. Your responses to the questionnaires will remain confidential. Your date of birth and the last four digits of your social security number will be used to match the different questionnaire that you will be completing in this study. Your confidentiality will be maintained at all times. Only group analysis will be performed and no individuals will be identified.

If you grant me permission by signing this document, the anonymous data you and others provide will be part of my final thesis report. It may also be submitted for publication in a psychological journal.

Your decision whether or not to participate in this study will not prejudice your future relations with Auburn University Montgomery.

For any question you may have that I do not answer at this time, or concerns about your participation in this study, please contact Dr. Peter Zachar, at Auburn University Montgomery at (pzachar@mail.aum.edu), (334) 244-3311 or Ginny Spaulding at ginny_spaulding@hotmail.com, (334) 538-6265.

Thank you very much for your time and willingness to participate in this study.

Ginny Spaulding
Psychology Graduate Student
Auburn University at Montgomery

YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE DECIDED TO PARTICIPATE, HAVING READ THE INFORMATION PROVIDED ABOVE.

_____ _____
Signature of Participant Date

_____ _____
Witness Date