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Sickness of the soul: Language mediated understandings of depression across cultures

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Sickness of the soul: Language mediated understandings of depression across cultures

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Abstract

Through the use of word association tasks and semi-structured interviews, the present study gathered information on the current dominant understandings of "depression" in America and "*yuutsu*" and "*utsubyou*" in Japan. The results were compared to the findings of a similar study that was conducted in the mid 1970s that aimed to find connections between language and the subjective experience of depression. In comparing the responses from the 1970s and the present, it was found that the dominant understanding of depression has been subject to change. These changes can be attributed to larger shifts in the sociopolitical climate, the proliferation of the pharmaceutical industry, and the medicalization, pharmaceuticalization, and commercialization of everyday distress in both Japan and the United States.

Keywords: depression, *yuutsu*, *utsubyou*, language, Japan, the United States

Introduction

"Sickness of the soul" refers to a translation of the Japanese marketing slogan *kokoro no kaze* (心の風邪). A more literal translation would be "cold of the soul" (Schulz, 2004; Watters, 2010; Kitanaka, 2012). This phrase, that originated to sell pharmaceuticals, changed how depression, or *utsubyou* (うつ病) was understood in Japan. Today, *utsubyou* is widely understood in Japan as a common mental illness, but this word is not regarded in the same way that it was before the 1990s. Additionally, *yuutsu* (ゆううつ) was thought to be the closest equivalent to American conceptions of depression in 1976, but that too has changed. This study aims to explore how the dominant understanding of depression have changed in Japan and the United States over the past few decades and how other social institutions have influenced the understanding of everyday distress as a disorder.

Tanaka-Matsumi and Marsella conducted a study in 1976 to see if the cultural understanding of depression is reflected in the word associations made by Japanese and American university students. The present study revisits this 1976 study to further examine whether or not there are different understandings of depression between these two cultures and to see if cultural understandings of depression had changed since the 1970s after the mass marketing of SSRIs in the US and the marketing strategies used in Japan to raise awareness about *utsubyou*.

Both American and Japanese societies have long histories and culturally specific ways of expressing, understanding, and treating mental illness, the following literature review focuses on the state of psychiatry, other institutions that are connected to mental health, and changes in dominant narratives of depression in both cultures after the 1976 study that are connected to larger social change.

Literature Review

The following section outlines the theoretical framework that this project utilizes, summarizes the previous study that this project revisits, and provides a brief history of the social changes that have occurred since the 1970s in Japan.

Language, Culture, and Subjective Experience of Illness

Arthur Kleinman describes the influence of culturally shaped understandings on illness experience:

> Because language, illness beliefs, personal significance of pain and suffering, and socially learned ways of behaving when ill are part of the process of mediation, the experience of illness (or distress) is always a culturally shaped phenomenon (Kleinman, 1988, p. 65).

This is the perspective with which the present study approaches depression in Japan and the United States.

Japan and the U.S. have distinct languages of expression. Eastern and Western societies vary greatly in the ways they describe symptoms and experiences,, which can be partially attributed to their relatively different styles of thinking. The Sapir-Whorf, or linguistic relativity, hypothesis helps explain how language shapes experience, as it theorizes that language "shapes or limits in some way the cognition and expression of a particular society" (Heine, 2012).

In the East, the culture tends to be more collectivist where "the self is always conceived as part of larger social context which surrounds the individual" (Tanaka-Matsumi and Marsella, 1976, p. 389). These cultures typically utilize a more holistic style of thinking which focuses on the context as a whole and an emphasis on relationships, harmony, interconnectedness and change (Heine, 2012). The Japanese value system revolves heavily around harmony and social order, so "sadness, grief and melancholy are accepted as an inevitable part of human life and

even welcomed at times for their symbolic value, as a reminder of the ephemeral nature of this world" (Kirmayer, 2002). Outside of clinical spheres, very few words existed in the Japanese language for what Western psychiatry understands as "depression.". The language of emotional expression in Japan has historically been largely figurative and deeply rooted in natural and interpersonal relationships.

Western societies tend to be more oriented toward the individual rather than the group. People in Western societies, or Westernized societies, think more analytically, where the object of focus exists independently of the context and is understood and characterized by its attributes (Heine, 2012). When expressing distress in the U.S., people are more likely to cite private emotional experiences rather than collective, shared experiences. These different styles of thinking and communicating across cultures may have also shaped the experience of distress in both cultural contexts. In Japan, the experience of depression includes the body, mind, and environment while in the U.S. it is largely considered a psychological experience.

Symbolic Interactionism and Dominant Narratives of Depression

Ways of understanding and responding to illness are also a part of the socialization process in any culture. Using perspectives from symbolic interactionism (SI), this section explores the ways that people learn about illness through language and meaning, and especially the ways in which meanings are negotiated by various social institutions such as media and medicine.

According to Blumer, the three main ideas of SI are as follows:

1) Human beings act towards things on the basis of the meanings that the things have for them.
2) Meaning is derived from social interaction.

3) Meanings change through interpretation (Blumer, 1969).

Language is important within SI because it is the primary system of meaning that humans share and is crucial for understanding and navigating the social world. The mass media, as an institution, has the power to define and reproduce the meanings, norms, values, and beliefs of the social world, since "those who own the means of communication construct the definition of reality" (Musolf, 1992).

These understandings of how culture and language are related inform the present study because language shapes how individuals within a particular cultural context derive meaning and interpret reality. Words can be interpreted in many different ways, and the dominant ideologies of a culture are reflected in the patterns of word associations of people coming from different systems of meaning. "Depression" in the United States can mean anything from a temporary bad mood to the fluctuations in the economy.

In Japan, the meaning of two words in particular have overlapped with Western conceptions of depression over the past few decades, but the extent to which each word was in common usage has varied. The first word, *yuutsu,* is commonly used to mean "general gloominess of the body and spirit," which connects this word to more traditional understandings of health in Japan (Waters, 2010). These understandings revolved around the notion of *ki* (気), which is understood as the vital energy or invisible life force that was constantly circulating and shifting in response to internal and external forces, such as one's emotions or social forces (Kitanaka, 2012). In 1976, *yuutsu* was selected as the word used in Tanaka-Matsumi and Marsella's word association study because it was the most relevant conceptual equivalent to "depression" in Japan at that time (Waters, 2010).

The second word in Japanese that overlaps with the American word "depression" is *utsubyou*. This word has historically been used as the label for severe and debilitating mental illness in Japan and was rarely used outside of the clinical sphere (Schulz, 2004; Waters, 2010). In more recent years, the term *utsubyou* has regained traction in Japan as the medical label of depression as a disorder or disease (Kirmayer, 2002). This emergence of *utsubyou* in popular discourse has been connected to the marketing tactics of pharmaceutical companies in Japan (Kitanaka, 2012; Watters, 2010). Although the meanings of "*yuutsu*" and "*utsubyou*" overlap with "depression" to an extent, they differ significantly as their meanings encompass thoughts and emotions as well as "full-body sadness" (Waters, 2010).

Tanaka-Matsumi and Marsella (1976)'s Comparative Study on Depression

The 1976 study by Tanaka-Matsumi and Marsella, titled "Cross Cultural Variations in the Phenomenological Experience of Depression," inspired the current research and provided a foundation for understanding word associations between Japan and the United States regarding depression. This particular study used word association tasks, which is one of the most effective ways to understand cross cultural variations in subjective understanding and experience (Szalay and Maday, 1973; Matsumi-Kitanaka & Marsella 1976). This study used the methodological framework developed by Szalay and his colleges, in which numerical values were assigned to word associations based on their order of association, finding that the words that people associated with first were more likely to be chosen by other people within the same cultural context (Szalay & Mayday, 1973). There have been a small handful of studies in the past that have used this method to understand cultural differences in word meanings between students in the U.S. and other East Asian countries (Tanaka-Matsumi & Marsella, 1976; Chan, 1990).

Tanaka-Matsumi and Marsella (1976) sampled three groups of university students in order to compare the top word associations for the words "depression" and its Japanese

conceptual equivalent at the time, *yuutsu.* The groups that were sampled included 150 university students that identified as Japanese Nationals (JN), 158 third-generation Japanese-Americans (JA), and 146 Caucasian-Americans (CA). Word associations from these samples were coded as internal, external, or somatic as particular word clusters emerged. The responses of the JA and CA samples were incredibly similar and pointed to the influence of socialization to a particular culture, so the following section will only focus on the responses of CA and JN responses.

The top word associations for CA students as well as the percentage of times these words were cited were as follows: sad/sadness (43.2%), lonely/loneliness (21.2%), down (13.7%), unhappy (13%), mood (8.9%), low (8.9%), blue (8.2%), gloomy (6.8%), failure (6.1%), upset (6.1%), anxious/anxiety (5.4%), tired/tiredness (4.7%), frustrated (4.7%), alone (4.1%), and suicide (4.1%). This group was much more likely to respond to the stimulus word "depression" with an internal mood referent than with external or somatic referents.

On the other hand, the top association percentages for Japanese Nationals with the stimulus word "*yuutsu"* were: rain (35.3%), dark/black (16%), worries (10%), grey (9.3%), cloudy (8.7%), suicide (8.7%), solitude (8%), exams (7.3%), depressing (6.0%), disease (5.3%), tiredness (4.7%), headache (4.7%), fatigue (4%), melancholy (4%), terrible thing (4%), and gloomy (4%). The JN sample was much more likely to associate *yuutsu* with external referents to their environment as well as referents to somatic states over internal mood states. A few "ethno-cultural idiosyncratic responses" were found that were more frequent and unique to the JN group. These included associations such as "rain," "dark," "grey," "cloudy," "worries," and "exam" that were not as common in the JA or CA groups.

According to Tanaka-Matsumi and Marsella (1976) words that had to do with weather or nature were likely chosen because, "Japanese people look at nature as something to be lived with in harmony... Nature is the source from which the concrete terms expressing complex emotional

states are derived [as] a referent to a particular type of weather frequently evokes a similar image across individuals" (p. 392). Thus, many referents made by the JN sample were likely experienced and understood by other Japanese nationals, and in this way they were able to avoid the "individualization of their mood" (Tanaka-Matsumi & Marsella, 1976, p. 389). The use of predominantly external and somatic referents by the Japanese university students may also speak to a communication style specific to predominantly collectivist societies, which is the indirect rather than explicit expression of emotion. This is different to the patterns of word associations made by the Caucasian American students who largely referred to internal mood states.

The results of this study suggested that significant variations in the subjective meaning and experience of depression existed across these two cultures. These differences were related to culturally shaped narratives and meanings that may have impacted the subjective experience of depression (Tanaka-Matsumi & Marsella, 1976, Watters. 2010). However, a few decades after Tanaka-Matsumi and Marsella's word association study, a number of cultural shifts began to reshape the dominant narrative for understanding depression in Japan and the United States. The following section will attempt to outline some of the major developments in understandings of mental health and illness since the 1970s within the changing sociopolitical climates of both cultures.

Social change after Tanaka-Matsumi and Marsella's Study

Major shifts were happening in America and in Japan during the time period surrounding Tanaka-Matsumi and Marsella's (1976) study. One force of social change was the antipsychiatry movement that occurred in the early 1970s in America and the late 1960s in Japan. In America, one branch of the antipsychiatry movement was lead by the parents of ex-patients and helped promote the shift to consumerism in the aftermath of deinstitutionalization and the movement towards community support programs, where people suffering from mental illness were

empowered to make choices about their own psychiatric treatment (McLean, 2000). In light of the advances in biomedical technology emerging in 1954 with the FDA approval of *Thorazine*, the movement "became committed to promoting a biomedical psychiatry that freed them from [the] blame" of perceived control over the illnesses that were ailing them (McLean, 2000, Pp. 802). In Japan, the antipsychiatry movement was led by academics and aimed to dismantle traditional Japanese psychiatry, which was seen as a means of social control. This movement was "crucial for preparing the conditions for the later medicalization of depression as it left a conceptual vacuum in its wake that was quickly filled by the [third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III)]" (Kitanaka, 2012, p. 51).

Impacts of the DSM-III and the Pharmaceutical Industry on Everyday Distress

The DSM-III was published in 1980, and gave the psychiatric discipline much sought after scientific credibility by developing an entirely new system of classification that made diagnosis a key part of psychiatry, much like other clinical disciplines (Horwitz, 2002). This transition to more medical credibility was aided by increased funding for psychopharmacological research, and pressure from health care organizations to provide "reliable, standardized criteria for diagnosis and treatment" (Lane, 2006).

Further advances in psychopharmacology yielded the development of the Selective Serotonin Reuptake Inhibitor (SSRI) *Prozac,* which was approved by the Food and Drug Administration during the1980s. SSRIs allowed people to "sculpt their personalities" by offering an ability to "regulate dysphoric mood[s] among many people who were formerly viewed as having temperamental or character traits that rendered them shy, inhibited or melancholic" (Kirmayer, 2002). The DSM became the standard for psychiatric diagnosis used by medical professionals in the United States, and the introduction of the DSM-III in Japan marked the re-Americanization of Japanese psychiatry (Kitanaka, 2012, p. 51).

While a relationship had preexisted between the psychiatric community and the pharmaceutical industry, the mass use of *Thorazine* to treat mental illness in the 1950s, publication of the DSM-III, and advances in SSRI research intensified the negotiating of meanings of everyday distress by entities with a vested interest in the medicalization of the phenomenon. Medicalization is the defining of previously nonmedical behaviors and conditions as a medical illness and using some kind of medical intervention to treat it (Conrad, 2005; Chananie, 2005), creating a dominant narrative that encourages people to seek medical help for any problems that they may have. According to Horwitz (2009), "Pharmaceutical companies, the mental health professions, the media, and governmental bodies encourage people to medicalize their emotional suffering" (Pp. 19). While medicalization certainly helped a lot of people alleviate their distress, the following section will focus on how commercial and corporate stakeholders play a major role in how the new pharmaceutical technologies would be framed (Conrad, 2005).

Direct to Consumer Advertising and the Negotiation of Dominant Narrative

Direct to consumer advertising (DTCA) of prescription drugs has been defined as "any promotional effort by a pharmaceutical firm to present prescription drug information to the general public through the lay media" (Grow, Park, & Han, 2006). In 1997, the FDA passed a deregulation policy that made DTCA easier because of fewer restrictions on the content of the advertisements (Arney & Menjivar, 2005; Grow, Park, & Han, 2006; Lane, 2006). Since then, antidepressants have become the most heavily advertised and lucrative category of drugs. The overrepresentation of antidepressant advertisements points to the specific targeting of an illness that many consumers are receptive to, even if these drugs are not in the best interest of the consumer's health (Grow, Park, & Han, 2006)

According to Conrad (2005), "medicalization is now more driven by commercial and market interests than by professional claims-makers. The definitional center of medicalization remains constant, but the availability of new pharmaceutical and potential genetic treatments are increasingly drivers for new medical categories." What gets defined as a medical illness or disorder is increasingly influenced by developments made by pharmaceutical industry and the economic interests of this industry to profit from these developments. Additionally, advertisements in general work to shape the consumer's understanding of reality, which is impactful when it comes to consumer understandings of mild depression (Chananie, 2005).

Numerous studies have looked at the marketing tactics used by pharmaceutical companies and the impacts that they have on consumer behavior and thought about illness (Arney & Menjivar, 2005; Lane, 2006; Grow, Park, & Han, 2006; Chananie, 2005). Many DTCA attempt to cast a wide net by focusing on the more mild symptoms of depression rather than things like suicidal ideation (Arney & Menjivar, 2005). One advertising tactic encourages consumers to self-label by providing them with diagnostic tools such as a checklist of symptoms, often the more mild ones. This contradicts the messages that are often presented simultaneously that consumers need to consult a physician because medical professionals are the only ones that can give official diagnoses (Arney & Menjivar, 2005). Through these advertisements, conceptualizations of mental illness are reshaped as mild symptoms that are precursors to a serious disease. This type of framing can be seen in both American and Japanese advertising for depression or *utsubyou*.

Even though DTCA has been an important part of medicalization in the U.S., one of two countries in the world where DTCA is even legal, "pharmaceutical companies are still very active in medicalization worldwide through physician-directed communications" (Bell and Figert, 2012, Pp. 778). In Japan, where DTCA is illegal, drugs are often marketed to physicians

on top of the educational campaigns that are already used to spread awareness about illnesses without directly marketing a drug (Schulz, 2004). However, pharmaceutical companies often use this tactic because in order to sell a cure, they must first sell the illness (Bell & Figert, 2012; Lane, 2006).

Emergence of Pharmaceuticals in Japan

The discourse surrounding mental illness in Japan was focused heavily on severe mental illness. Up until recently, psychiatry in Japan has been focused almost exclusively on inpatient treatment of major psychoses in private psychiatric hospitals (Kirmayer, 2002). Severe clinical depression, which is what *utsubyou* referred to historically, was held in the same regard as schizophrenia in its severity and stigmatization. *Utsubyou* was almost exclusively treated in institutions and talked about in medical spheres (Schulz, 2004). Japan's emphasis on severe disorders reinforces the stigma associated with psychiatric diagnosis and treatment (Kirmayer, 2002, p. 298). Diagnoses such as mild depression did not exist in Japan until fairly recently and, interestingly enough, the label given to symptoms of mild depression is still *utsubyou* (Schulz, 2004).

Instead of adopting SSRIs that "exaggerated types of personality valued in the United States," such as being more outgoing, Japan continued to use sedatives which were the first popular psychopharmacological medication in Japan (Watters, 2010, p. 213). During the 1980s and early 1990s, large pharmaceutical corporations did not try to market their antidepressants to Japan, as it was understood that there was essentially no market for antidepressants because DTCA of prescription drugs was illegal and new drugs needed the approval of the Ministry of Health and Welfare before they could be sold in Japanese markets. The high cost for carrying out these clinical drug trials in Japan, as well as the difficulty in finding a sample that is willing to

participate, led many Western pharmaceutical companies to avoid Japan altogether. (Kirmayer, 2002).

In the 1990s, Japan experienced a devastating economic collapse. The period following the economic bubble burst that extended through the 1990s and even the 2000s is known as the "lost decade(s)," and left Japan in a "general state of uncertainty" (Kawano, Roberts, & Long, 2014). During this time, there was also a large shift in the understanding of depression and its connection to suicide with the prevalence of overwork suicides. The first overwork suicides catalyzed public interest in finding the connection between overwork, depression, and suicide (Waters, 2010). This also galvanized the Japanese public into thinking about individual depression in terms of its biological and social origins, shaping depression as a social issue rather than an individual problem (Hirai, 2005). In Japan there was, and still is a cultural logic that those who commit suicide do so because of existential reasons and as an act of free will rather than because of an underlying pathological reason, this was called *kakugo no jisatsu*, or "suicide of resolve" (Kitanaka, 2012). It is a common cultural understanding that people commit suicide for socially meaningful reasons, such existential angst or as an act of resistance against an institution that did them wrong (Kitanaka, 2012).

It was not until overwork suicide became a significant social issue that people began to pay more attention to suicide as a result of depression. With overwork suicide gaining national attention alongside major events like the economic collapse and devastating 1995 earthquake in Kobe, public opinion in the ability of the Japanese government to adequately provide for those in distress declined. Focus also shifted towards the technological advances being made in the West regarding the treatment of illnesses like depression. At this time, SSRIs would be introduced in Japan as the cutting edge of technology that would help Japan close the gap between Japanese and American psychiatry (Watters, 2010).

The first company to market SSRIs in Japan was actually a Japanese company, Meiji Seika Kaisha, the first to use the phrase *kokoro no kaze* (心の風邪), followed by GlaxoSmithKline in 2000 with *Paxil* (Schulz, 2004). The metaphor of depression symptoms to common cold symptoms worked as a culturally relevant way of marketing *utsubyou* as a treatable mental illness in a country where mental illness was highly stigmatized and generally not talked about. By framing depression as a "cold of the soul," pharmaceutical companies were able to market their antidepressants as something akin to taking medicine for a cold, and changed the perception of depression/sadness as something minor (like a cold) that still needed to be treated because it could potentially kill you without proper medical attention (Watters, 2010). As Kirmayer (2002) puts it, "in an effort to make the diagnosis more acceptable, it has been compared with the common cold: an acute and transient ailment, but one that affects the *kokoro,* or the heart/mind" (p. 305). This different approach to framing mild depression between Japan and the United States is also tied to tactics used to reflect and reinforce the preexisting belief systems of a culture so that messages are more resonant with the viewers (Chananie, 2005; Grow et al., 2006).

In the years following the introduction of antidepressants as the cure for *kokoro no kaze*, public awareness of depression increased rapidly due to the aggressive and consistent publicity that aimed to "educate" people on depression (Schulz, 2004). According to Schulz (2004), between 1990 and 1995, only 27 books on depression had been published in Japan and depression was hardly talked about; However, between 1999 and 2004, the number of books on depression had increased to 177 and depression was being discussed in every kind of media, turning it "from a bad word to a buzzword" (Schulz, 2004, p. 76). Also, according to Schulz's (2004) analysis of data collected by IMS Health, which gathers data on global healthcare and

pharmaceuticals, depression-related doctor visits increased by 46% between 1999 and 2003 in Japan and the sales of SSRIs like Paxil skyrocketed.

The following sections will illustrate the methodologies of the current study and will include the most recent snapshot of how depression is understood by university students in Japan and the U.S. Though using word associations, the researcher hopes to answer the following questions:

1) Comparing responses of participants from the present study and of Tanaka-Matsumi and Marsella's study from 1976, has the dominant understanding of depression changed over time?
2) To what extent are the changing perceptions of depression reflected in language?

Method

Participants

This study recruited participants from an East Coast American university and an East Coast Japanese university in order to sample from student populations in these particular cultures. The students that were recruited from the Japanese university were participating in a study abroad program that allowed them to be present at the American university at the time the research was being conducted. Both of these samples were convenience samples as they were the only participants that the researcher readily had access to.

The American sample consisted of 661 participants, 82.6% of the sample identified as female, 16.6% identified as male, and 0.7% identified outside of the traditional gender binary. The average age of participants in this sample was 20.7 years of age with the youngest being 17 years of age and the oldest being 51 years of age. 81.1% of participants identified as White/Caucasian, 7.9% identifying as multiracial, 3.3% as East Asian, 3.2% as Hispanic/Latin

American, 2.6% as Black/African American, 0.75% as South Asian/Indian American, and 0.45% as Middle Eastern/Arab American. All respondents who identified as Native American/Alaska Native also identified with another group and were recorded as multiracial. Of the American sample, 97% spoke English as their first language while the remaining 3% spoke a language other than English or Japanese as their first language.

Due to very limited access to Japanese university students, the Japanese sample was made up of only 20 respondents who were studying abroad at the American university while the current research was taking place. Within this sample, 65% identified as female and 35% identified as male. The average age of participants was 19.7 years of age, with the youngest being 18 years of age and the oldest being 26 years of age. Of these participants, 100% identified as ethnically Japanese and all spoke Japanese as their first language.

Materials

A two-part survey was created in order to collect data on participant information, word associations with stimulus words, and contact information for the follow up interview from both samples (see appendix A-C). This survey was created and administered through Qualtrics,. In reality, three different surveys were created: part one for the American sample, part one for the Japanese sample, and part two for both Japanese and American students to fill in contact information.

Two informed consent documents were also created. One would be sent to students electronically and direct them either to the Japanese or English Qualtrics survey link. The other would be a hard copy for the face-to-face follow-up interviews with specific information about giving consent to have the audio from the interview recorded. If consent was given, the audio from the interview was recorded using a personal recording device that aided with transcription.

Procedure

American and Japanese participants were recruited using different procedures due to the researcher's different levels of accessibility to each group. The American sample was recruited to take the Qualtrics survey through a bulk email that was sent to all students attending the American university. Japanese students were recruited to take the survey by an email that was sent through their program coordinator. Through this initial email contact, students could consent to participating in the research by following the link to the Qualtrics survey that would take the participant to either the Japanese or English survey depending on the recruitment email.

The first part of the survey only collected participant information and responses to the word association task. The English version of the survey had 9 items, the last of which was the word association task for the stimulus word "depression." The Japanese version had 9 items, the last two items were the word association task for *yuutsu* (ゆううつ) and *utsubyou* (うつ病). Two academic professionals who spoke Japanese as their first language helped the researcher translate the survey from English to Japanese. "*Yuutsu*" was chosen because, according to Tanaka-Matsumi and Marsella (1976), this word was the most conceptually equivalent to the English word "depression" at the time of their research. The second word, "*utsubyou*" was chosen as it is more equivalent to the word "depression" in present day Japan. Participants were asked to type the first three words that came to their mind when prompted with the stimulus word(s) "depression," or "*yuutsu*" and "*utsubyou*."

Upon completing the word association task, participants were redirected to a separate survey that made up the second part of the larger survey. This section gave students the option to record their contact information if they wished to participate in the follow-up interview. It was specified that a $25 incentive would be randomly awarded to one American participant, regardless of whether they wanted to participate in the follow-up interview or not. Monetary

incentive was not given to Japanese participants due to the limited time that they would be present on the American university campus.

Because this study asked participants to respond to the word "depression" or its conceptual equivalent in Japanese, there was potential that the word or the associations made might cause psychological distress. In the event that individuals felt emotionally distressed upon completing the survey, a list of resources were provided at the end. The list included resources that were located on and off of the American university campus as well as national and international helplines for depression and suicide prevention.

Participants were recruited for the follow-up interview by the information that they provided in part two of the survey if they had consented to being contacted by the researcher. Out of the 288 American participants that were interested in the follow-up interview, the researcher used a random number generator to select 10 to contact. Of these people that were contacted, five responded and four were actually interviewed. All of the people that were interviewed from the American sample were female. Japanese participants were recruited in much the same way, but instead of randomly selecting people to be contacted for the interview, the researcher contacted all participants that expressed interest. Of the 12 participants who were contacted, four were actually interviewed, two were female and two were male.

American students were incentivized to participate in the follow-up interview with $5 that would be given to participants at the time of the interview. Participants could agree to have the audio from the interview recorded on a personal recording device for later transcription. The follow-up interview consisted of about five open-ended questions related to why participants responded to the target word in the ways that they did and how they came to understand the target word(s) over the course of their life. These follow-up interviews were conducted in order to collect additional qualitative information about the target words in both cultures. All survey

and follow-up interview data were collected while participants were on the American University campus.

Responses in the American sample were coded first by the researcher because a vast majority of the word associations came from this sample. At three associations per person, and 661 respondents, the American sample resulted in 1,983 word associations. The Japanese sample only had 120 word associations across both terms, "*yuutsu*" and "*utsubyou*." Once data were collected and categorized, the number of times that a word or variation of that word appeared (such as sad and sadness) was counted. Only words that appeared more than once were included in this analysis to eliminate words that seemed idiosyncratic or random. Once these words were taken out, the American university sample still had 1,821 total word associations. On the other hand, all responses were counted in the Japanese sample due to the relatively small number of associations and because all of the words within this sample fit within the categories that were listed below.

The subjective values of the word associations were calculated in a model similar to Tanaka-Matsumi and Marsella's (1976) procedure, which assumes that the first responses were the most significant to respondents and the third was less significant. Words that were chosen first were also more likely to be chosen again by another participant within the same cultural context, pointing to the understanding of dominant ideologies within that culture (Szalay & Mayday, 1973). A "subjective value score" was ascribed to each word association depending on its placement in a participant's response: the first response having three points, the second having two points, and the third having one point. This method also makes it easier to order word associations hierarchically once the number of times a word appeared was calculated along with the sum of subjective value scores that the word had for each respondent.

The American responses were coded initially by following the framework provided by Tanaka-Matsumi and Marsella's study where the only categories that were recorded were internal emotional states, external referent associations, and somatic functioning and illness. These were vaguely defined through examples that were given so that internal mood states meant words such as "sadness" or "lonely," external referents meant concrete things such as nature and colors, and somatic experiences of the illness such as "headaches" and "fatigue."

Through further analysis of the word associations, the researcher found additional patterns that did not seem to fit within the Tanaka-Matsumi and Marsella (1976) framework that was limited to the internal, external, and somatic categories. In deviating from the original categorization framework, the new categories of interpersonal, behavioral, clinical, and economic emerged. The coding procedures were centered on seven word association categories and they are as follows:

1) *Internal*. This category refers to an internal mood state or relates to the self or identity of the respondent. (I.e. sad/sadness, guilt, hopeless, lonely/loneliness, self-loathing, etc.)
2) *External*. This category is the broadest and includes references to nature, colors, time, and descriptive adjectives. (I.e. cloudy, blue, forever, unpleasant, empty, etc.)
3) *Interpersonal.* This category refers to social ties, social consequences, interpersonal interactions, and perceptions of others. (I.e. stigma, judgement, family, misunderstood, etc.)
4) *Behavioral*. This category refers to directly observable behaviors or actions (I.e. crying, sleep, self-harm, etc.)
5) *Somatic*, This category refers to sensations that the body experiences (I.e. weakness, numbness, fatigue, pain, suffocating, etc.)

6) *Clinical*. This category includes words that are related to psychology, psychiatry, pharmaceuticals, and epidemiology. (I.e. mental health/illness, disorder, drugs/medication, treatable, therapy, widespread, etc.)
7) *Economic*. This category refers to money and economic recession (I.e. poor/poverty, economic recession, the Great Depression, etc.) and while these referents are still external, the researcher found it necessary to create an additional subcategory.

A number of words could potentially fall under more than one category, such as "blue," which Tanaka-Matsumi and Marsella (1976) categorized as a color referent that was put into both internal and external categories. For the present study, color referents only appeared in the external referent category. Furthermore, any words that seemed to have ambiguous meanings, such as "gloom" that could fall under more than one category were fit under one category and kept constant for all American and Japanese responses. The researcher did all of the categorizations with minimal input from alternative perspectives, so the interpretation of these ambiguous words may differ between individuals (see the appendix for the coding manual).

All data from the word association task were coded using the procedure above and analyzed for content. Similarly, all interviews were analyzed for content after transcription and used to gather more information on the understandings of depression in Japan and the U.S.

Findings

Table 1 – Top 11 Word Associations for "Depression" in American University Sample

Rank	Word Association	Frequency	Percent	Score
1	Sad/Sadness	458	23.12%	1250
2	Lonely/Loneliness	161	8.13%	420
3	Hopeless/Hopelessness	71	3.58%	146
5	Dark/Darkness	66	3.33%	120
4	Alone	64	3.23%	109
6	Mental Health/Illness	57	2.88%	121
7	Anxiety	52	2.62%	105
7	Suicide	52	2.62%	100
8	Tired	38	1.92%	60
9	Empty	32	1.62%	65
10	Unmotivated	30	1.51%	52

Table 2 – Top 11 Word Associations for "*Yuutsu*" in Japanese University Sample

Rank	Word Association	Frequency	Percent	Score
1	Sad/Sorrowful	4	6.67%	10
2	Tiredness/Fatigue	4	6.67%	8
3	Disagreeable/Unpleasant	4	6.67%	7
4	*"Utsubyo"*	3	5.00%	9
5	Troublesome	3	5.00%	6
5	Dark/Gloomy	3	5.00%	6
6	To Feel Down	3	5.00%	4
7	Test	2	3.33%	6
8	Study	2	3.33%	5
8	Suicide	2	3.33%	5
9	Anxiety/Insecurity	2	3.33%	4

Table 3 – Top 11 Word Associations for "*Utsubyo*" in Japanese University Sample

Rank	Word Association	Frequency	Percent	Score
1	Psychosis/Mental Illness	6	10.00%	13
2	Serious/Severe	5	8.33%	9
3	Suicide	4	6.67%	9
3	Drugs/Medication	4	6.67%	9
4	Dark/Gloomy	4	6.67%	7
5	Stress	3	5.00%	4
6	Cold of the Soul	2	3.33%	6
7	To Give Up/Discouraged	2	3.33%	5
7	Negative	2	3.33%	5
8	Social Withdrawal	2	3.33%	4
8	Lethargy/Apathy	2	3.33%	4

Table 1.0 gives us the top 11 word associations for the stimulus word "depression" for the North American sample. About half of the most popular word associations made by American university students were the *Internal* referents sad/sadness (23.12%), lonely/loneliness (8.13%), hopeless/hopelessness (3.58%), anxiety (2.62%), and unmotivated (1.51%). The words dark/darkness (3.33%), and empty (1.62%) were coded as *External* referents as one is describing

external stimuli that appeal to the visual senses, while the other is an external concept that can be used to describe internal feelings through analogy. The word "alone" (3.23%) was coded as *Interpersonal* because it is the state of being by oneself or not being in the company of others, and does not necessarily communicate negative affect. Mental health/Illness (2.88%) was categorized as *Clinical* because it is associated with the mind and with health. Finally, tired (1.92%) was categorized as *Somatic* because tiredness is most commonly associated with a bodily experience and associated with exhaustion or fatigue.

Table 2 illustrates the top word associations for *yuutsu* within the Japanese sample. The most common category that came up within the top associations for Japanese students was *External*. The words that were coded as *External* were disagreeable/unpleasant (6.67%), troublesome (5%), dark/gloomy (5%), to feel down (5%), and test (3.33%). Only two of the words in this table were coded as *Internal,* which were sad/sorrowful (6.67%), and anxiety/insecurity (3.33%). Similarly, only two responses were coded as *Behavioral* and these words were study (3.33%) and suicide (3.33%). Finally, tiredness/fatigue (6.67%) was the only word coded as *Somatic*, and *utsubyou* (5%), was the only word categorized as *Clinical. Utsubyou* was coded this way because the dominant response patterns for the stimulus word this word fit within the *Clinical* word association category, which we will explore more below. It is notable that there are no words from this sample that are overrepresented like "sad/sadness" in the American sample, and many words appear at the same rate. This is in a large part due to the very small sample size of Japanese university students, a fact that should be kept in mind while looking through the results.

Finally, Table 3 shows us the most common word associations for the stimulus word "*utsubyou*" that were made by Japanese university students. The largest category present in this table was *Clinical*, which included psychosis/mental illness (10%), serious/severe (8.33%),

drug/medication (6.67%), and "cold of the soul" (3.33%). The next largest categories were *External*, with words like dark/gloomy (6.67%), and negative (3.33%), *Behavioral* with suicide (6.67%) and social withdrawal (3.33%), and *Internal* with stress (5%) and to give up/discouraged (3.33%). Finally, the only *Somatic* referent in the top associations was lethargy/apathy (3.33%). Again, the small sample size has a significant impact on the number of times each word appears and the top associations for "*yuutsu*" and "*utsubyou.*" A larger sample size would give a more concrete list of associations that make up the popular definition of these words.

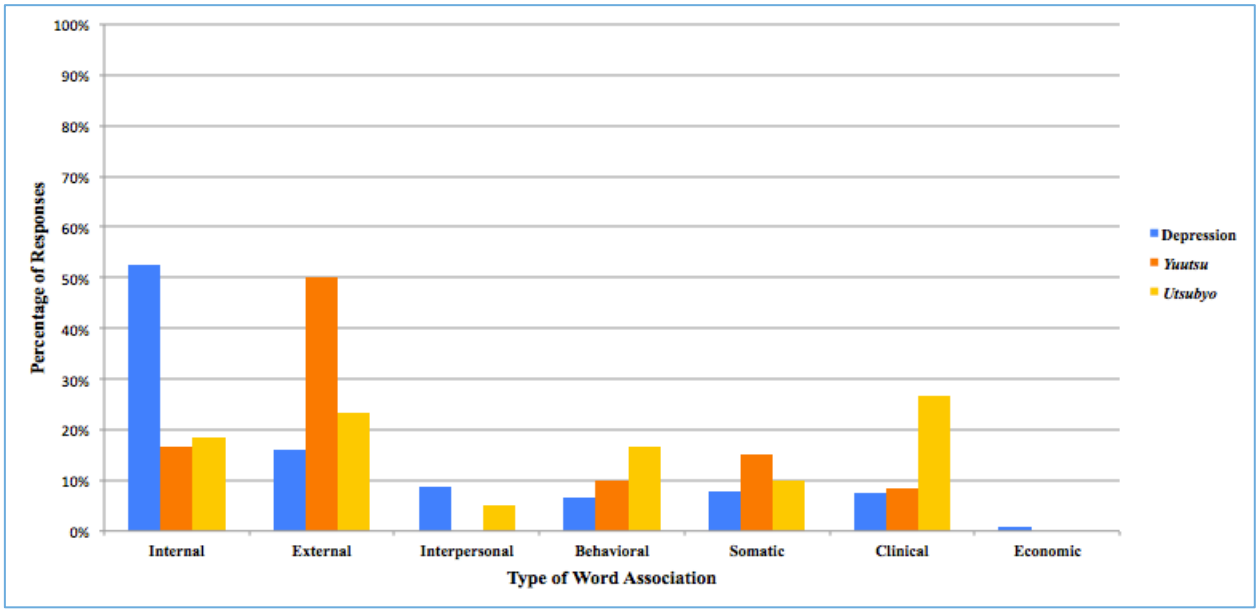

Figure 1 Depicts the percentage of responses that fell under each of the seven word association categories according to the stimulus words "depression" (in blue and on the far left) "*yuutsu*" (in orange and in the middle), and "*utsubyou*" (in yellow and on the far right).

Figure 1 shows us the rates of responses for all stimulus words and word association categories. For the stimulus word "depression," 52.44% of the word associations that were made by American respondents were *Internal*. The next largest response category for this group was *External*, which made up only 16.14% of the American responses. Of the remaining association types, *Interpersonal* accounted for about 8.62% of the total American responses, *Somatic* for 7.69%, *Clinical* for 7.52%, *Behavioral* for 6.64%, and finally *Economic* for 0.93%.

For the stimulus word "*yuutsu*" the more common type of association that was used by the Japanese sample was *External*, which accounted for about 50% of the responses. The next most frequent type of association was *Internal* at about 16.67%, followed closely by *Somatic* at about 15%. Only about 10% of associations with "*yuutsu"* were *Behavioral* and the remaining 8.33% of the associations were *Clinical*. There were no associations made that were coded as *Interpersonal* or *Economic* for "*yuutsu."*

For the stimulus word "*utsubyou,*" the most common type of association that was used by the Japanese sample was Clinical at 26.67%. The next highest response was *External* at about 23.33%, followed by *Internal* at 18.33%, and *Behavioral* at about 16.67%. Finally, *Somatic* made up about 10% of the responses and *Interpersonal* made up only about 5%.

For the most part, both Japanese and American students recounted in the interviews their learning about depression through educational health programs at school. However, Japanese participants were more likely to refer to televised news as a main source of information about depression in Japan. This is not surprising because television is one of the most pervasive vehicles of mass entertainment in contemporary Japan. According to Sugimoto (2010), "the central organization of mass media in general, and television in particular, makes it easy for central image-makers to capture the nation's curiosity" and shape behavior (Sugimoto, p. 252). Although televised media in the United States operates similarly, American participants were less likely to have acquired knowledge about depression through news and much more likely to talk about pervasive DTCAs.

American participants were also far more likely to be open about experiences with depression while Japanese participants were not. All four American participants talked about personal experiences with depression, and/or claimed to know somebody who was suffering from depression. On the other hand, none of the Japanese participants disclosed any personal

mental health information, and only one participant claimed to have a friend who suffered from social anxiety. This openness from the American sample may have been due to the fact that the participants and the researcher had common ground as students of the same university, or that the participants self-selected to do the interview out of a desire to talk about depression. The more reserved responses in the Japanese sample may have been due to the unfamiliar environment as an exchange student, language barriers, styles of communication that differ across cultures or the continued stigmatization of mental illness in Japan.

Discussion

Like the Tanaka-Matsumi and Marsella study, "sad/sadness" was the most common word association in the sample of American students, but instead of being cited by almost half (43.2%) of the sample, it was cited by only about one fourth (23.12%) of the sample. This may be due in part to the much larger number of American respondents resulting in a much more diverse collection of word associations and a smaller percentage of participants citing the same words. Also, compared to the top word associations made by students in 1976, it appears that "sad/sadness," "lonely/loneliness," "anxiety," "tired," "alone," and "suicide" have remained dominant in the understanding of depression within this group. All of the other words that were cited as the top associations in 1976 were still mentioned, but not by enough respondents to make it into the top word associations. The other popular associations from the current sample were "unmotivated," "dark," "empty," and "mental health/illness." It is worth noting that "mental health/illness" was not a popular association in 1976, and the presence of "mental health/illness" as a dominant word association in this sample may be a result of the medicalization of depression that has been exacerbated through marketing and awareness-raising campaigns that have largely been associated with pharmaceutical interests.

The words that came up the most frequently in both the 1976 study and in the present study for the stimulus word "*yuutsu*" were "tiredness/fatigue," "suicide," "test/exams," "dark," "gloomy" and "depressing." Overall, this word appears to have maintained it's meaning for the past few decades and has remained a word that is associated with largely external referents. However, the type of external referents that are the most popular have changed from being more reflective of the natural world with words like "rain" and "cloud" to being more reflective of other adjectives that frame *yuutsu* as being merely an unpleasant or troublesome nuisance. Interestingly, *yuutsu* has consistently been associated with "tests" or "exams," and this may be specific only to the university or high school age population in Japan that has been sampled for both the 1976 study and the current study.

It is worth noting that there was a connection between *yuutsu* and *utsubyou* where participants associated the former with the latter. This was elaborated on during the follow-up interviews with Japanese students. According to the students that were interviewed, *yuutsu* is not considered an illness and it is something that everyone can feel. One may even feel *yuutsu for reasons as mundane as doing something one doesn't want to to*, being upset about something that has happened, worrying about an exam, or even if it is the last day of vacation. *Yuutsu* is more of a word for everyday distress, but one that feels *yuutsu* everyday may have *utsubyou* instead. According to these students, *yuutsu* is something that people in general experience and *utsubyou* is a serious illness that people may contract if they feel *yuutsu* for too long. It makes sense that this word for everyday distress that was not and is not necessarily disordered was the "conceptual equivalent" of depression for Tanaka-Matsumi and Marsella (1976), because mild depression did not exist in Japan during that time (Schulz, 2004). However, since 1976, everyday distress, or *yuutsu,* has developed an even stronger connection to the serious illness of depression, or *utsubyou*. As mentioned earlier, this connection is one of the goals of DTCA in

America, and of the other forms of "educational" advertising in Japan. The interview data show that these advertisements may be gaining headway in their attempts to legitimize an illness in order to sell drugs by framing something that is "normal," *yuutsu*, as a slippery slope to something that is "abnormal," u*tsubyou*. (Lane, 2006; Arney & Menjivar, 2005).

The Tanaka-Matsumi and Marsella (1976) study did not collect data on *utsubyou*, and the responses that were elicited from this stimulus word in the present study are different from the associations made with the other stimulus words. There is much more emphasis on the clinical aspect of this word, and that may have a lot to do with the fact that *utsubyou* has historically been a word for a severe clinical illness in Japan. *Utsubyou* is the only word where medication came up in the top associations. Though this may be a product of the small sample size, it is interesting because see this word is commonly associated with an illness label, a drug treatment, and the phrase "cold of the soul" or *kokoro no kaze*. The emphasis on these words in particular may also be a result of the medicalization of everyday distress in Japan and the commercialization of prescription drugs. The associations to *koko no kaze* is a direct link to this commercialization because it was the slogan that was used by pharmaceutical companies in Japan to raise awareness about depression (Schulz, 2004). The fact that two participants in the Japanese sample who were likely 19 years old, identified that term, points to the success of the marketing strategy of *utsubyou*, and may also suggest that *kokoro no kaze* is still significant to the understanding of *utsubyou* in Japan, but further investigation is needed to be certain.

Overall, depression in America has been classified by the DSM as a mood disorder, and this cultural understanding is reflected in the number of responses from an overwhelming majority in the American sample that referred to internal mood states. On the other hand, both "*yuutsu"* and "*utsubyou"* overlap with "depression" in some ways but do not seem to have the same meaning. Neither association patterns of "*yuutsu*" and "*utsubyou*" seem to give internal

experience much weight. Instead, *yuutsu* focused mostly on external referents, relating to stressors that act on the individual externally or through the environment, while the responses for *utsubyou* seem to gravitate more towards clinical understandings of illness as well as external factors.

Limitations

This study has a variety of limitations, and one of the most significant limitations is experimenter bias. The researcher was responsible for all data collection, coding, interpretation and research behind this project and it is highly likely that personal biases have shaped the findings of this study.

Due to words having more than one meaning, it is very possible that the researcher interpreted or categorized a word based on personal understandings of words. These personal understandings were also likely to have been shaped by researcher's socialization being in the United States and dominant ideologies that the researcher has acquired. It is also very possible that the researcher has unintentionally taken an ethnocentric approach to understanding depression in two very different cultural contexts. These limitations may be ameliorated by having a team of researchers who are from both cultural contexts and to have word categorizations checked by one or more unbiased individuals.

Another issue is the sample size from the Japanese university student population. Because only 20 students responded to the online survey with the word association task, there were only 60 associations per stimulus word, resulting in a total of 120 word associations. Compared to the much larger response rate from the American university students, 661 of which participated in the word association task, resulting in 1,983 individual word associations. From these numbers, it is much more likely that the patterns of word association that were made by

American students are more generalizable to the understanding of depression within this population. Currently, the word association patterns of the Japanese students are not generalizable, and in order to increase certainty that these patterns are a reflection of the population a much larger sample will be needed.

Demographic representation in both samples were also not necessarily reflective of the population where samples were drawn. Within the American university sample, the distribution of gender and race is not representative of the institution where the research was taking place nor was it representative of America's population as a whole, as people who identified as female were overrepresented as well as people who identified as White/Caucasian and multiracial. The overwhelming overrepresentation of women in the American sample may be due in part to the gendered understanding of affective disorders in the United States, especially since a majority of DTCAs for mood disorders is targeted towards women, and mostly white and middle class women who may have more purchasing power (Arney & Menjivar, 2014; Chanenie, 2005).

The Japanese sample is also not particularly representative of the general population of Japan in age and gender distribution, especially considering the overrepresentation of responders who identified as female. Both samples were also from university populations, so the level of education that participants have received is also not representative of the general populations and may have impacted the results of the word association task.

A limitation in the interview process was the language barrier between the researcher and the Japanese students. Even though the researcher has been formally trained in Japanese, communication with this group was imperfect as it required someone to always be speaking in their second language. Because of this, the information that was gathered from these interviews was not always clear and both the researcher and participant could not go into much detail. It is also possible that Japanese studemts were less likely to be more candid with a researcher whi

was not fluent in Japanese or were themselves a Japanese National. This led to much more information being collected in interviews with participants who spoke English as their first language.

Conclusions and Implications

Overall, the results from this study indicate that the understandings of depression in both cultural contexts have been subject to change since the last time word association data were collected on depression, *yuutsu*, and *utsubyou*. It is very likely that these changes in understanding have been due in part to the reshaping of dominant narratives of depression by larger institutional forces. This is important to understand, as the dominant ideologies about experiences of depression and how it should be treated have been constructed by industries with a vested interest in medicalization. While this is good for many people suffering from depression in both cultural contexts, because it destigmatizes depression and makes access to treatment easier and more affordable (for those with adequate resources), it also makes it "difficult to believe in any treatment but medicine" (Schulz, 2004, Pp. 80).

Also, while the dominant narratives may have changed to facilitate medicalization, the overall definitions and maybe even experiences of depression in the U.S. and Japan are still culturally distinct. This reaffirms the need for culturally competent care as the ways that people express distress or view mental illness may impact the course of their treatment and recovery.

From the responses of almost all American participants and a handful of Japanese participants, it became clear that the dominant ideology does not necessarily reflect the lived reality of depression for many people because it has been so broadened by vehicles like DTCA. The narrative of the "chemical imbalance in the brain that can be cured with medicine," while helpful for some, is problematic for others, and is still contested in pharmaceutical research. For

many people, depression is never really "cured" and it is an ongoing struggle that is dismissed when the dominant narrative features a miracle cure.

While efforts to destigmatize depression have been growing, there is also the unintended consequence that people who have not experienced depression directly will not be able to fully comprehend what depression feels like and will not be able to respond to others in a way that is constructive or that validates what they are feeling. This problem is not new, since the stigma of mental illness also prevents people from understanding or responding to it appropriately, but the dominant narrative that is constructed to cast a wide net exacerbates this lack of understanding. More efforts need to be made to raise awareness about the more personal and alternative narratives of depression that counter the dominant understanding. In this way, people may have easier access to more viable alternatives of behavior if they find that they themselves are experiencing symptoms of major or mild depression, or if they know someone who is.

Also, while the de-commercialization of prescription drugs is unlikely in the near future, more should be done to regulate the messages that are sent through mass media platforms. Advertisements could be more truthful about the effectiveness of drugs like SSRIs in treating mild depression, encourage individuals to seek other forms of treatment, and be more representative of the lived reality of depression by showing that not all experiences will look the same. Also, there should be much more transparency when it comes to how much money pharmaceutical companies are putting in to marketing drugs to physicians. Finally, the continued use of pharmaceuticalization as a main course of treatment for problems inhibits the call to action when it comes to combatting larger social issues that lead to poor mental health outcomes in the first place (Horwitz, 2009).

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Appendix A

English-default Survey

Please fill in the participant information below. Note that this survey can be taken in English or Japanese (日本語) by selecting the desired language from the drop-down button located at the upper right-hand side of this screen - please take this survey in your preferred language.

Q1. What is your age (in years)?

- _____

Q2. What is your gender identity?

- Male
- Female
- Not listed (please specify your gender identity) _____

Q3. What is your racial/ethnic identity? Please choose all that apply.

- Black/African American
- Caucasian/Euro American
- East Asian/Asian American
- Hispanic/Latin American
- Native American/Alaska Native
- Middle Eastern/Arab American
- South Asian/Indian American
- Japanese National
- Not Listed (please specify your racial/ethnic identity) _____

Q4. Are you currently taking classes or enrolled in a program at JMU?

- Yes
- No

Q5. What is your class standing?

- First year
- Second year
- Third year
- Fourth year
- Fifth year
- Graduate
- Not formally enrolled

Q6. What are you studying? (Please include all majors and minors) _____

Q7. Are you an international student?

- Yes (please specify country of origin) _____
- No

Q8. Is English your first language?

- Yes
- No (please specify you first language) _____

SICKNESS OF THE SOUL

This is now the word association part of the task. Please follow the instructions below. Once you have completed this section and press the "next" button you will be redirected to a separate, completely unrelated survey where you can choose to record your contact information.

Q9. What are the first three words that come to mind when you think of *depression*?

_____

This section of the survey is NOT connected to your previous responses. Please include your preferred email at the end of this section if you are interested in receiving a $25 gift card and/or participating in a follow-up interview with the researcher.

Q10. Do you consent to participating in a follow-up interview with the researcher?

- Yes, please email me about the follow-up interview and/or if I have won the $25 gift card
- No, please only email me if I have won the $25 gift card

Q11. What is your preferred email address (Enter "N/A" for no answer) _____

APPENDIX B

Japanese Translation for English-default Survey:

下の質問を応え下さい。このサーベイは英語と日本語を取ること出来ます。言語の選択はこのスクリーン右上へ見つけます。あなたの母国語このサーベイをして下さい。

Q1. あなたは何才ですか。_____

Q2. あなたの性別をお答え下さい。

- 男性
- 女性
- その他_____

Q3. あなたの人種/民族性についてお答え下さい。

- アフリカ系アメリカ人
- 白人
- ヒスパニック / ラテンアメリカ人
- ネイティブアメリカン
- アジア系アメリカ人
- 中東人 / アラブアメリカ人
- 南アジア人 / インドアメリカ人
- 日本人
- その他 _____

Q4. 今、JMU に勉強をしますか。

- はい
- いいえ

Q5. あなたの学年についてお答え下さい。

- 新入生
- 二年生
- 三年生
- 四年生
- 五年生
- 大学院生
- 登録ではない

Q6. あなたは留学生ですか。

- はい（どこから来ましたか。）_____
- いいえ

Q7. あなたの専攻は何ですか。（全部書いて下さい。）_____

Q8. あなたの母国語は英語ですか。

- はい
- いいえ（何言語）_____

下の指図を読んで下さい。このセクションの終わる時に、"next"を選びます。最後のセクションはこの回答でわ合わさない。

Q9. "Depression" について、思いますか（３言葉を書いて下さい。)

_____, _____, _____

前の質問と下のセクションは別々にレコードします。＄２５ギフトカードを受け取るのために、あなたの電子メールを書いて下さい。

Q12. インタビューはだいじょぶですか。

- はい
- いいえ

Q13.　あなたの電子メールは何ですか。_____

APPENDIX C

Japanese Default Survey

Q1. あなたは何才ですか。_____

Q2. あなたの性別をお答え下さい。
- 男性
- 女性
- その他_____

Q3. あなたの国籍についてお答え下さい。
- アフリカ系アメリカ人
- 白人
- ヒスパニック / ラテンアメリカ人
- ネイティブアメリカン
- アジア系アメリカ人
- 中東人 / アラブアメリカ人
- 南アジア人 / インドアメリカ人
- 日本人
- その他 _____

Q4. あなたの学年についてお答え下さい。
- 新入生
- 二年生
- 三年生
- 四年生
- 五年生
- 大学院生
- 登録ではない

Q5. あなたは留学生ですか。
- はい（どこから来ましたか。）_____
- いいえ

Q6. あなたの専攻は何ですか。（全部書いて下さい。）_____

Q7. あなたの母国語は日本語ですか。
- はい
- いいえ（何言語）_____

Q8. ゆううつについて、思いますか（３言葉を書いて下さい。)

_____, _____, _____

Q9. うつ病について、思いますか（３言葉を書いて下さい。)

_____, _____, _____

前の質問と下のセクションは別々にレコードします。＄２５ギフトカードを受け取るのために、あなたの電子メールを書いて下さい。

Q11. インタビューはだいじょぶですか。

- はい
- いいえ

Q12.　あなたの電子メールは何ですか。_____

APPENDIX D

Coding Manuel for Responses to "Depression," "Yuutsu," and "Utsubyou"

American Sample for "depression"

661 participants x 3 responses each (total of 1,983 word associations)

Requirement: Words had to be chosen at least twice

Total number of 2+ responses: 1,821

Total number of 2+ words: 137

INTERNAL REFERENT (1) - Moods/relating to the self

Anger	Helpless	Personal
Anxiety	Hopeless/Hopelessness	Regret
Apathy	Insecure/Unconfident	Sad/Sadness
Bored/Dull	Life	Scared
Despair	Lonely/Loneliness	Self-loathing
Doubt	Loss	Stressed
Emotion(al)	Loss of enjoyment	Suffering
Emotionless	Me/Myself	Unhappy
Fear	Melancholy	Uninterested
Feelings	Misery	Unknown/Uncertain
Frustrating	Mood	Unmotivated
Grief	Negative	Upset
Guilt	Overwhelmed	Worthlessness

EXTERNAL REFERENT (2) - Nature/colors/time/descriptive adjectives that appeal to the senses and/or are used to modify "depression" but can also be used to describe just about anything

(High) School	Burden	Death
Bad	Cloudy	Defeat(ed)
Black	Cold	Devoid of Meaning/Purpose
Bleak	Complicated	Difficult/Hard
Blue	Consuming	Down
Broken	Dark/Darkness	Dreary

SICKNESS OF THE SOUL

Empty	Long-term	Tragic
Everlasting	Lost	Trapped
Gloom(y)	Reality	Unable
Gray	Reoccurring	Uncontrollable
Hidden	Struggle	War
Hole	Stuck	Winter

INTERPERSONAL (3) - Social ties/interactions/perceptions of others

Alone	Isolated	Sister
Antisocial	Misunderstood	Solidarity
Critical/Judgment	Need for Communication	Stigma
Family	Secluded	
Help		

BEHAVIORAL (4) - observable behaviors/actions

Bed ridden		Suicide
Crying	Reserved	Tears
Lazy	Self-harm/Cutting	Unproductive
Passivity	Silent	Withdrawal
Quiet	Sleep	

SOMATIC (5) - Bodily sensations

Crushing	Immobility	Suffocating
Debilitating	Lethargic	Tired
Drowning	Loss of energy	Weak
Exhausted	Numb	Weight
Fatigue	Pain/hurt	
Heavy	Slow	

CLINICAL (6) – Relating to psychology/psychiatry/pharmaceuticals/epidemiology

SICKNESS OF THE SOUL

Chemical	Disease	Psychiatry/ology
Chronic	Disorder	Sickness
Clinical/Medical Condition	Drugs/Medication	Treatable
Common	Imbalance	Widespread
Counseling/Therapy	Mental Health/Illness	
	Mind	

ECONOMIC (7) - Relating to money/economic recession

1929/1930's	Jobs/Unemployment	Poor/Poverty
Economic collapse	Money	

***Japanese Sample for* "yuutsu"**

20 participants x 3 responses each (total of 60 word associations)

All responses used due to small sample size

Total number of responses: 60

Total number of words: 41

INTERNAL REFERENT (1) - Moods/relating to the self

Anxiety/Uneasy ---------- ふあん (*fuan)*

Regret ---------- こうかい (*koukai)*

No motivation ---------- やる気がでない *(yarukigatenai)*

Sad/sorrowful ---------- 悲しい (*kanashii/kanashimi)*

Sense of helplessness ---------- むりょくかん (*muryokukan)*

Stress ---------- ストレス (*sutoresu)*

Want to cry ---------- 泣きたい *(nakitai)*

Worries/troubles/distress ---------- なやみ (*nayami)*

EXTERNAL REFERENT (2) - Nature/colors/time/descriptive adjectives that appeal to the senses and/or are used to modify "depression" but can also be used to describe just about anything

Alcohol ---------- お酒 (*osake)*

SICKNESS OF THE SOUL

Dark/gloomy	暗い (*kurai)*
Disagreeable/unpleasant	嫌 (*iya)*
Future/prospects/promise	しょうらい (*shyourai)*
To finish/bring to an end	かたづける *(katazukeru)*
Overcast	どんより (*donyori)*
Impossible	*In English*
Last day of vacation	休暇の最終 (*kyoukanosaishyoubi)*
Lesson/teaching plan	じゅぎょうじゅんび / きょうあん (*jyukyoujyunbi/kyouan)*
Negative	*In English*
Presentation	プレゼン (*purezan)*
Rain	雨 (*ame)*
Gloom/Stagnation/melancholy	鬱 (*Utsu)*
Term/time frame/deadline	きげん (*kigen)*
Test	テスト (*tesuto)*
Tiresome/troublesome	めんどくさい/しんどい (*mendokusai/shindoi)*
To feel down/to fall into something	おちこむ (*ochikomi/ochikomu)*
Tobacco	タバコ (*tabako)*

INTERPERSONAL (3) - Social ties/interactions/perceptions of others

N/A

BEHAVIORAL (4) - observable behaviors/actions

No will to wake up	やる気が起きない *(yarukigaokinai)*
Sigh	ためいき *(tameiki)*
Suicide	自殺 *(jisatsu)*
Study	勉強 (*benkyou)*
Tears	涙 *(namida)*
Wrist cutting	リストカット *(risutokatto)*

SICKNESS OF THE SOUL

SOMATIC (5) - Bodily sensations

Lethargy/apathy ---------- 無気力 *(mukiryoku)*

Headache ---------- ずうつ *(zuutzu)*

Stomach ache/Nausea ---------- 胃の痛み/吐き気 *(inoitami/hakike)*

Tiredness/Fatigue ---------- 疲れ *(tsukare)*

CLINICAL (6) - Relating to psychology/psychiatry/pharmaceuticals/epidemiology

Depression/sickness ---------- うつ病 (*utsubyou)*

"Annihilation of the soul" ---------- 気が滅入る (*kigahorohairu)*

Wish to commit suicide ---------- 自殺願望 *(jisatsuganbou)*

ECONOMIC (7) - Relating to money/economic recession

N/A (but *ochikomu* could also be used to refer to an economic recession)

***Japanese Sample for* "utsubyou"**

20 participants x 3 responses each (total of 60 word associations)

All responses used due to small sample size

Total number of responses: 60

INTERNAL REFERENT (1) - Moods/relating to the self

Anxiety/Uneasy ---------- ふあん (*fuan)*

Discouragement/Disappointment ---- らくたん *(rakutan)*

Emotional instability ---------- 情緒不安定 *(jyouchyofuantei)*

Manic-depressive/mood swing ------- 躁鬱 *(souutsu)*

Mind/soul/heart/spirit ---------- 精神 *(seishin)*

Motivation/inspiration ---------- やる気 (yaruki)

Stress ---------- ストレス (*sutoresu)*

To give up (hope) ---------- 諦め *(akirame)*

Worries/troubles/distress ---------- 悩み *(nayami)*

SICKNESS OF THE SOUL
Understanding of surroundings ------ 周囲の理解 *(shyuinorikai)*

EXTERNAL REFERENT (2) - Nature/colors/time/descriptive adjectives that appeal to the senses and/or are used to modify "depression" but can also be used to describe just about anything

Adult ---------- 大人 *(otona)*

Dark/gloomy ---------- 暗い (*kurai)*

Drama ---------- ドラマ *(dorama)*

Gun ---------- ガン *(gan)*

Negative ---------- ネガティヴ *(negateibu)*

Serious/Severe ---------- 酷/深刻 *(koku/shinkoku)*

Serious/grave/terrible ---------- 大変 *(taihen)*

Intense/severe/hard ---------- きつい *(kitsui)*

INTERPERSONAL (3) - Social ties/interactions/perceptions of others

Alone ---------- 独り *(hitori)*

Human relations ---------- 人間関係 *(ningenkankei)*

Isolation ---------- こどく *(kodoku)*

BEHAVIORAL (4) - observable behaviors/actions

Appetite ---------- 食欲 *(shyokuyoku)*

Can't wake up ---------- 起きられない *(okirarenai)*

Inability to think ---------- しこうていし *(shikouteishi)*

Insufficient sleep ---------- すいみんふそく *(suiminfusoku)*

Social withdrawal ---------- ひきこもり *(hikikomori)*

Suicide ---------- 自殺 (*jisatsu)*

Truancy/Missing school ---------- 不登校 *(futoukou)*

SICKNESS OF THE SOUL

SOMATIC (5) - Bodily sensations

Lethargy/apathy ---------- 無気力 *(mukiryoku)*

Fatigue/weariness ---------- 疲労 *(hirou)*

Mental Fatigue ---------- 気疲れ *(kizukare)*

Nausea ---------- 吐き気 *(hakike)*

Painful/Agonizing ---------- 苦しい *(kurushii)*

CLINICAL (6) - Relating to psychology/psychiatry/pharmaceuticals/epidemiology

Ailing/Sick ---------- 病んでる *(yanderu)*

Cold of the soul ---------- 心の病 *(kokoronokaze)*

Hospital/hospitalization ---------- 病院/入院 *(byouin/nyuuin)*

Sickness/Illness ---------- 病/病気 *(byo/byouki)*

Not easily cured ---------- なかなか治らない *(nakanakanaoranai)*

Psychiatry ---------- 精神科 *(seishinka)*

Psychosis/mental illness ---------- 精神病 *(seishinbyou)*

Psychotropic drug/medication ------- 向精神薬/薬 *(kouseishinyaku/kusuri)*

Wish to commit suicide ---------- 自殺願望 *(jisatsuganbou)*

ECONOMIC (7) - Relating to money/economic recession (N/A)