

5-1-2019

Act-Based Statements Effect on Bartending Tips

Mariah Patz

Southern Illinois University Carbondale, patzmariah@gmail.com

Follow this and additional works at: <https://opensiuc.lib.siu.edu/theses>

Recommended Citation

Patz, Mariah, "Act-Based Statements Effect on Bartending Tips" (2019). *Theses*. 2523.
<https://opensiuc.lib.siu.edu/theses/2523>

This Open Access Thesis is brought to you for free and open access by the Theses and Dissertations at OpenSIUC. It has been accepted for inclusion in Theses by an authorized administrator of OpenSIUC. For more information, please contact opensiuc@lib.siu.edu.

ACT-BASED STATEMENTS EFFECT ON BARTENDING TIPS

by

Mariah Patz

B.S., Southern Illinois University, 2015

A Thesis

Submitted in Partial Fulfillment of the Requirements for the
Master of Science Degree

Department of Rehabilitation
in the Graduate School
Southern Illinois University Carbondale
May 2019

THESIS APPROVAL

ACT-BASED STATEMENTS EFFECT ON BARTENDING TIPS

by

Mariah Patz

A Thesis Submitted in Partial

Fulfillment of the Requirements

for the Degree of

Master of Science

in the field of Behavior Analysis and Therapy

Approved by:

Dr. Mark Dixon, Chair

Dr. Darwin S. Koch

Dr. Ryan Redner

Graduate School
Southern Illinois University Carbondale
April 10, 2019

AN ABSTRACT OF THE THESIS OF

MARIAH PATZ, for the Master of Science degree in BEHAVIOR ANALYSIS AND THERAPY, presented on April 10, 2019, at Southern Illinois University Carbondale.

TITLE: ACT-BASED STATEMENTS EFFECT ON BARTENDING TIPS

MAJOR PROFESSOR: Dr. Mark Dixon

Acceptance and Commitment Therapy (ACT) is a behaviorally-based intervention that emphasizes psychological processes related to mindfulness, values, committed actions towards values, defusion from troubling thoughts, and acceptance. ACT is often used with populations who experience psychological inflexibility or stress, but not much research has been done understanding how ACT processes may affect everyday tasks within the common public or within business practices. The present study used a randomized controlled trial to determine the effect that statements related to ACT processes given while receiving a bar tending service altered the outcome tipping percentage from guests. The current research also discussed how each statement used relates back to the various components of ACT. The current study suggests a potential way to increase tips that a bartender or server can receive by providing a simple ACT-based statement to their customers while still maintaining an inviting and friendly environment for entertainment. Results of this study indicated that the use of mindfulness statements was statistically significant, $t(53) = 1.68, p < .098$. While one of the six prepared and randomized mindfulness statements, "It's it a nice night for a drink?" used was statistically significant in increasing tip revenue when compared to all other mindfulness statements used and the control statements used in a one-way ANOVA analysis, $F(6, 48) = 1.799, p = .11$. Results of this study were not significant for a t-test comparing statements and total tip value received compared to total bill amount $t(5) = 0.887, p < .378$. Additionally, results of a two-way ANOVA comparing male and female and tip value also displayed no statistical significance $F(1, 51) = 0.051, p = .82, F(1, 51) = 1.106, p = .29$, with no

significant interaction, $F(1, 51) = 2.467$, $p = .12$. Lastly, a two-way ANOVA comparing male and female and total tip value received compared to total bill amount displayed no significance as well $F(1, 51) = 0.448$, $p = .50$, $F(1, 51) = 1.439$, $p = .23$, with no significant interaction $F(1, 51) = 0.693$, $p = .40$. Organizational behavior management (OBM) is an area of behavior intervention ripe for ACT research. Future OBM research could extend upon by incorporating the use of ACT, or ACT related processes into everyday business models and behaviors.

Keywords: acceptance and commitment therapy, organizational behavior management,
randomized controlled trial

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>PAGE</u>
ABSTRACT.....	i
LIST OF TABLES	iii
LIST OF FIGURES	iv
CHAPTERS	
CHAPTER 1 – Introduction	1
CHAPTER 2 – Method	11
CHAPTER 3 – Results.....	18
CHAPTER 4 – Discussion	21
REFERENCES	29
APPENDICES	
APPENDIX A – Table 1	34
APPENDIX B – Table 2	35
APPENDIX C – Table 3	36
APPENDIX D – Table 4.....	37
APPENDIX E – Figure 1	38
APPENDIX F – Figure 2	39
APPENDIX G – Figure 3.....	40
APPENDIX H – Figure 4.....	41
APPENDIX I – Figure 5	42
APPENDIX J – Figure 6.....	43
VITA	44

LIST OF TABLES

<u>TABLE</u>	<u>PAGE</u>
Table 1.....	34
Table 2.....	35
Table 3.....	36
Table 4.....	37

LIST OF FIGURES

<u>FIGURE</u>	<u>PAGE</u>
Figure 1 -	38
Figure 2 -	39
Figure 3 -	40
Figure 4 -	41
Figure 5 -	42
Figure 6 -	43

CHAPTER 1

INTRODUCTION

Many businesses start with a simple idea an entrepreneur has to make or provide a service. From here, the entrepreneur researches how this product can be supplied to the costumer at a fair price to the costumer and to the business. Many businesses, with the exception of not for profit companies, main focus is to create revenue. Maximizing profit margins through low cost of production, allows businesses to inflate the price the service or product can be purchased for, creating a large profit margin that assists the company to stay in the black and continue to grow the company. Although this is a common goal among businesses, most businesses do follow an empirically supported approach to continue to grow and build profits. With many businesses lacking this guidance and knowledge of empirically based approaches to support their companies, advice from a behavior analysist who specializes in this field may prove to be beneficial for both employees and company alike.

By utilizing the skills organizational behavior analysists have through their use of empirically-based approaches, and ability to manipulate environments to improve employees and companies target behavior, more companies could begin to reap the benefits of Organizational Behavior Management (OBM). Behavior analysists interested in OBM can aid companies by coaching their team and improving performance through scientifically evaluating their business' behavior to achieve success (Brown, 2001). OBM has demonstrated its effectiveness in many different work environments, from banks to industrial organizational settings (Crowell, Anderson, Abel, & Sergio, 1988; Sulzer-Azaroff & Consuelo de Santamaria, 1980). Across settings, there are many approaches to creating a more efficient work environment. Two approaches that organizational behavior analysts may use will be discussed further; a Skinnerian-based approach,

or Acceptance and Commitment Therapy (ACT, stated as one word) based approach. (Hayes et al., 1999).

A brief overview of B. F. Skinner, 1957, *Verbal Behavior* is necessary to further understand how organizational behavior analysts use this approach within an OBM setting. Skinner's work discusses many aspects of what verbal behavior is, as well as who verbal behavior effects within the environment. However, six key verbal operants are explained below that are the bases of the verbal behavior we still use today.

Echoic. An echoic is often times the first form of verbal language that is displayed in humans. Skinner explains that echoics are the simplest case of verbal behavior, being under the control of the verbal stimuli, the organism learns how to say a word based off of repeating a word that it has commonly heard in its verbal community, echoic meaning the echo of a word (Skinner, 1957).

Mand. A mand shares point-to-point correspondence with the sound of the stimulus and the sound of the response given (Skinner, 1957). A mand is often used when an organism is in need of something, asking in the form of a mand may look similar to this, "Water!" listener then hands the speaker water in response.

Textual. Textual is the ability for the organism to interact with text, whether this is visual text or textured text (Braille) but does not necessarily mean the organism understands what the text means. Textual does have point-to-point correspondence but does not include formal similarity (Skinner, 1957). No formal similarity within the textual verbal operant means the words could be text but would be spoken or written in a different language than what originally appeared.

Tact. A tact is similar to a mand and can easily be confused. Tacts however received its name though the suggestion that a tact "makes contact with" the physical world (Skinner, 1957). Essentially, tacts are labels placed on items, a speaker may say, "Cabinet," followed by the listener

providing verbal praise, “Great job, that is a cabinet,” when learning the name of new physical objects.

Transcription. Transcription does have point-to-point correspondence but is not formally similar. The stimulus can change from auditory word to written visual text, visual signing of a word or physical typing of a word (Skinner, 1957).

Intraverbal. Intraverbal behavior is evoked by a discriminative stimulus (other verbal behavior) to the listen which results in a response with no point-to-point or formal similarity of verbal behavior (Törneke, 2010). Intraverbal is best known as holding a spoken conversation.

Through the use of a combination of verbal operants, organizational behavior analysts, managers and fellow employees may improve performance within an organizational setting. Two main avenues verbal operants are used is by providing verbal feedback, social praise, and goal setting. In a recent study conducted by Roscoe, Fisher, Glover and Volkert (2006), performance feedback was used with a monetary contingency to train individuals to properly perform multiple stimulus without replacement (MSWO) preference assessments. Verbal feedback was proven effective on its own and continued to improve in conditions where verbal feedback and monetary contingencies were set in place. Similarly, behavior analysis can train supervisors to provide effective feedback to their employees through a collaborative team effort as shown in a 30-year case example conducted by Reid, Parson and Jensen (2015). A study conducted by Olson, Laraway & Austin (2001), researchers found that many occupational behavior analysts may have a more effective approach to lasting work-related behavior interventions by creating an effective establishing operation (EO) that been set in place within the work environment, thus creating an antecedent intervention, this can be created by informing the employees regular feedback will be given throughout their shifts daily, weekly or quarterly to create an EO for receiving more positive feedback. With each company comes a variety of needs specific to its services being offered as

well as for the employees who work there. Due to these unique factors of each company and employee often times goal setting can be used as a great motivator and incentive for the employee to continue to work hard to assist the company. In a study completed by Locke & Latham (1990), results indicated that goal setting for more difficult tasks improved employee work performance, over goal setting creating for easier goals. However, the use of less specific goals does not increase performance in employees, as well as more specific, yet difficult goals, due to the lack of ambiguity the employee has in the completion of the task (Locke & Latham, 2002). Ayllon & Azrin (1964) found that individuals who have been made aware of the rules or guidelines can come under the control of contingencies of rules more quickly and effectively than others that have not, similarly to employees who are given detailed criteria of goals to meet come under the control of their contingencies to accomplish those goals more effectively. Verbal components were also used to improve grocery store employee's performance through task clarification and social praise (Rice, Austin, & Garvina, 2009). During 48-week follow-up employees continued to complete more tasks correctly than they previously had during baseline conditions. Lastly, a study conducted by Olson, Laraway & Austin (2001), researchers found that many occupational behavior analysts may have a more effective approach to lasting work-related behavior interventions by creating an effective establishing operation that been set in place within the work environment, thus creating an antecedent intervention.

The second approach previously mentioned that may be used by behavior analysts in an organizational setting is one that stems from Relational Frame Theory (RFT). First, a brief overview of RFT will be provided to give additional background information on how ACT is utilized, followed by an overview of the important components that make up ACT. Steven Hayes, Ph.D. first developed RFT to provide an explanation to human language and cognition. RFT bases human language and cognition development off of relating arbitrary and non-arbitrary information,

bidirectional learning, that the learner comes into contact. These initial relational foundations allow the learner to continue to build new relational responses, or relational frames, to further develop their language and cognition RFT contains three major bidirectional relational frames mutual entailment, combinatorial entailment, and transformation of functions (Hayes, Barnes-Homes & Roche, 2001).

Mutual Entailment. Mutual Entailment is when two stimuli used can form a mutual relation, when one relation of the stimuli has been specified (A is to B), the second relation is mutual entailed (B is to A), or is the same (Hayes et al., 2001). Mutual entailment is similar to symmetry in stimulus equivalence (Sidman, 1971).

Combinatorial Entailment. Combinatorial Entailment is when a derived stimulus relation is mutually combined through two or more stimulus relations, these stimulus relations can be trained or derived relations (Hayes et al., 2001). In their book, Hayes et al., (2001) explains combinatorial entailment as a combination of transitivity and equivalence in what is stimulus equivalence, when A is to B, an B is to C, a derived relation of A to C should develop without the need to teach the direct relation of such, and vice versa, C is to A, by teaching the first two relations.

Transformation of Stimulus Functions. Transformation of Functions is sometimes also referred to as transfer of stimulus functions (Hayes et al., 2001). Transformation of Functions is when the function of one stimulus of a derived relation alters the function of another stimulus through its derived relation between the two stimuli. (Dymond & Rehfeldt, 2000; Dougher & Markham, 1994, 1996; Hayes, 1991). This could create a positive or negative effect, based on what the original relation was between A and B. Dymond & Rehfeldt (2000) explain the details of

how there is a psychological effect that takes place during the transformation of stimulus functions through the use of verbal language within an interaction.

With the ability to have verbal language in one's repertoire and build upon it in their own verbal community also comes some downfalls. When the principles of verbal language and RFT combine, there is a change that inaccurate, and unpleasant relational frames can be formed within one's thoughts. Often times these psychological processes that are formed can lead to problematic thinking patterns and reduce overall psychological flexibility (Bond, Hayes, Barnes-Holmes, 2006). Through the use of Acceptance and Commitment Therapy, individuals are able to undermine their unhelpful psychological processes they have struggled with, to reframe their old psychological processes by establishing new relational frames assisting them to rewire their original processes (Hayes, Strosahl & Wilson, 1999).

ACT is another contextual approach to behavior that was also created by Steven Hayes, Ph.D., in the early 1980's to help individuals with language and cognition skills to develop more psychological flexibility (Hayes, 1993). ACT is the first applied approach to therapy to be based off of RFT, and may be referred to as "third-wave" of behavior therapy which incorporates cognitive behavioral therapy traditions with new approaches to acceptance and mindfulness practices that are becoming increasingly more popular (Hayes, Bunting, Herbst, Bond, Barnes-Holmes, 2006; Fletcher & Hayes, 2005; Hayes, Follette, & Linehan, 2004). ACT asks the individual to accept their current state and be mindful of how it affects them in an effort to move forward, unlike other therapies that aim to rework how the individuals approaches their emotions in a given situation. However, humans who display advanced language and cognition skills can experience positive and negative effects resulting in psychological inflexibility (Hayes, Strosahl & Wilson, 2016; Hayes, 2002). Below is a discussion that further breaks down the components of psychological inflexibility, psychological flexibility, and how their components differ from each

other. These six core components of psychological flexibility are associated with a hexagon shaped web, which connects each component to the next in a design known as the hexaflex, see Table 1.

The six core components of psychological inflexibility are experiential avoidance, inflexible attention, disruption of values, cognitive fusion, attachment to the conceptualized self, and inaction. Additionally, the six for components of the psychological flexibility hexaflex are acceptance, present moment, values, defusion, self-as-context, and committed action. Each of the six components has a mirrored component changing the model from rigidity in psychological inflexibility to a more accepting, open and flexible stance of psychological flexibility. Each pair of components is designed to unravel the beliefs that maintain them. Due to human's ability to communicate through language, unlike other animals, there are additional elements that humans suffer with from their advancement in language and cognitive understanding. Typically, an animal would react immediately to an aversive condition, then resume their normal behavior once the condition has been removed, however with humans our language skills allow us to recall previous incidents, perseverate on events, and become anxious or depressed about may happen or have happened already (Hayes et. al, 2016).

Experiential Avoidance and Acceptance. Experiential Avoidance is the opposite of experiential acceptance, together each work together on a spectrum. Experiential avoidance is actively avoiding a difficult emotion, or task, moving from one side of the spectrum of completing those tasks and fears, to the experiential acceptance side of the spectrum (Hayes, Wilson, Gifford, Follette, & Strosahl, 1996). Closer to the experiential acceptance end of the spectrum, is where happy thoughts and a sense of pride in achievements. Often times repeatedly indulging in experiential avoidance stalls the progress of an individual's growth due to avoiding the difficult tasks that help them get closer to achieving their goals that align with their values. A common metaphor used to assist with experiential avoidance and acceptance is one of finishing a sentence,

“Mary had a little...” without stating the last word in the statement one will already know the answer is “...lamb,” similarly to when one says “don’t think about going to the bathroom,” but then that is all the individual can seem to think about (Bond, 2004). By trying not to think of something or avoiding saying the ending of a statement, eventually one’s thoughts will move in a circular pattern of not thinking about the situation or finishing the statement.

Inflexible Attention and Present Moment. Inflexible attention and present moment are also opposites between the psychological inflexibility hexaflex and the psychological flexibility hexaflex. Inflexible attention can happen when an individual is too caught up in problem solving, thinking within their minds, or can even be as simple as getting transfixed while watching a television show or movie (Hayes et al., 2016). Though there is only one dimension of time, now in this very moment, individuals who are able to accept the present moment are capable of living in the current time, outside of their minds and open to the current circumstances.

Disruption of Values and Values. ACT relies heavily on value-based behavior that is unique to each individual and is a guide for their own behavior. Values are a reminder that provide a reference point to each person if they are living a life in line with their values or not. A disruption of values shows a weakening in the relationship between the individuals’ actions, and behaviors that align with the values they hold. Values hold an individual accountable and provides a guide for value-based behavior to follow to walk closer the values held by the individual in every behavior and choice they make.

Cognitive Fusion and Defusion. Cognitive Fusion is when a verbal event (thinking) has a strong stimulus control over responding (Hayes et al., 2016). Cognitive fusion can be seen in mental organizing or categorizing, problem solving, evaluating, relating, and even describing, making cognitive fusion a process that human beings automatically do throughout each day (Hayes et al., 2016). However, cognitive fusion can also cause relations to form inaccurately, or negatively

and lead to perseverating around the topic within the mind. Cognitive defusion can assist with breaking down previously fused thoughts and reconfiguring the relational frames by reframing the fused thoughts by reworking the relation frame and releasing the limiting believes that make up the damaging fused relational frames within the mind.

Attachment to the Conceptualized Self and Self-As-Context. Attachment to the conceptualized self and self-as-context allows individuals to be aware of their own self, including their overt behaviors others can pick up on, while self-as-context allows one to take a perspective of what is overtly effecting others. If an individual can successfully identify their conceptualized self, it is possible that the individual will have an easier time relating to others and what they are going through with perspective taking of self-as-context. With the use of self-as-context, individuals will have an easier time relating to others and are more likely to share empathy and sympathy when needed within specific contexts.

Inaction and Committed Action. Inaction and committed action work closely with one's values. Throughout each day we come across many opportunities to make choices, when one chooses the option that will ultimately bring themselves closer to their goals and values it is considered making a commitment to their values, a committed action. However, often times the choice that does not bring one closer to their goals and values may also be chosen, an inaction, which takes away from achieving goals and living through one's values.

Verbal behavior plays a large role within ACT, covering all areas from the spoken words (overt behavior) that take place during therapy and out of therapy to the self-talk that takes place within one's mind and thoughts (covert behavior, or "private events") throughout each day (Skinner, 1953). ACT relies on verbal behavior to communicate the relations that have been formed and will continue to be formed in the future through the use of ACT. A key component in ACT is the verbal behaviors ability to create new relational frames through the ability to recreate

existing negative or incorrect frames that have fused within one's thoughts. Due to a high prevalence of the human population who contribute to our verbal community and have their own complete verbal repertoire, ACT can be used in a variety of settings, with nearly any age and any population. One population that has been largely investigated using ACT has been individuals with mental health (Hayes & Strosahl, 2004).

The purpose of this current study is to expand upon previous research in the realm of OBM, while introducing the use of ACT in the work environment. ACT is often used with populations who experience psychological inflexibility or stress, but not much research has been done understanding how ACT processes may affect everyday tasks within the common public or within business practices. The present study used a randomized controlled trial to determine the effect that statements related to ACT processes given while receiving a bar tending service altered the outcome tipping percentage from guests. The current research also discussed how each statement used relates back to the various components of ACT. The current study suggests a potential way to increase tips that a bartender or server can receive by providing a simple ACT-based statement to their customers while still maintaining an inviting and friendly environment for entertainment. OBM is an area of behavior intervention ripe for ACT research. Future OBM research could extend upon by incorporating the use of ACT, or ACT related processes into everyday business models and behaviors.

CHAPTER 2

METHOD

Customers, Setting, and Materials

Customers. All fifty-five customers used throughout the course of this study were community members of West-Central and Southern Illinois, who were at least 21 years of age. Two female bartenders assisted with this study and were both in their late twenties. All customers ages were verified before partaking in the study due to United States federal laws regarding alcohol consumption. Customers' age was verified by a bartender through manually checking either their state issued identification card, or their state issued driver's license identification card. Each identification card includes the customer's date of birth. No customers with the date of birth prior to January 18th, 1998 were able to participate in the current study, due to a mandatory age requirement of 21. Although age was verified for participation, the age of each customer was not recorded for the use of this study. Due to the nature of this study, observational demographic data was recorded to identify if each customer were a male or female. No further demographic or personal identification data was recorded throughout the course of this study. Additional demographic data was not collected because it was not the main focus of the study and to aid in keeping customer confidentiality.

Setting. All experimental sessions were conducted in either one of two similar locations. The first setting took place in a restaurant in West-Central Illinois featuring a full bar inside the establishment. The second location, in Southern Illinois was a neighborhood bar, with a frequent and regular crowd of guests. The second establishment did not offer food service unlike the first location. All sessions were conducted discreetly to reduce the reactivity by the customers that any data was being collected. All experimental sessions lasted between two to eight hours in duration and occurred one to four nights a week. The experimenter taking interobserver agreement (IOA)

was encouraged to blend into the environment by ordering food or beverages and engaging in small talk to other customers at the bar, again, in an effort to reduce reactivity by the customers. When available a secondary experimenter accompanied the primary experimenter to aid as a distractor from data collection being recorded from observers. Purchasing beverages, and food, engaging in small talk with others, and bringing an additional experimenter were all tactics used to reduce the reactivity that the customers at these locations may have caught on to. By disguising the experimenter sitting at the bar, the customers were less likely to think they were being observed throughout their evening.

Materials. At the first location, paper data sheets (see Table 1) which were prepared ahead of each session were used by both the primary experimenter and the experimenter taking IOA. Along with paper data sheets, the experimenters used pens to record the data. Each data sheet contained fifteen rows, and seven columns, the first row at the top indicated what each column would be recording: number assigned to the customer, randomized control trial group, phrase stated, gender, tip amount, bill total, percentage of tip to total bill. In the top margin the primary experimenter recorded their name, while in the bottom margin the experimenter recorded the page number of each data sheet made. For instances when IOA was recorded, the data sheet was copied, and denoted in a side margin that that sheet being recorded on was for IOA purposes. The remaining fourteen rows allowed for an even number of customers to be collected in each group, the intervention and control. However, at the second location, where the setting was more intimate the experimenter opted to switch from the paper data sheets by transferring the information onto a Google Sheets document that could be assessed through an application downloaded on both of the experimenter's cellular devices, this aided in being able to discreetly record the data throughout the session. For both recording systems, the randomized control trial (RCT) and phrases were determined with the use of an online search engine generator. A search engine coin flip was used

to determine the group randomization, while a random number generator was used to assign the phrase stated during the intervention phase. The number generator was set at a minimum of one and a maximum of six.

Response Measurement and Definitions

For this study the permanent product was scored for both the independent variable and dependent variable. The independent variable within this study is the phrase stated to the customers after ordering from the bar. In total, six different statements (see Table 2) were used throughout the intervention phase of this experiment, each statement relating to mindfulness: 1) “Take in the night.,” 2) “Take a moment to enjoy the night.,” 3) “Isn’t it a nice night for a drink?,” 4) “Doesn’t that cold drink feel great in your hand?,” 5) “Enjoy every sip.,” 6) “Live your best life.”

Take in the night. The statement “Take in the night” aims to provide the customer with a sense of mindfulness to experience the night. It also connects with present moment, where the customer would need to be able to “take in” the experiences that are currently happening around them.

Take a moment to enjoy the night. This statement employs the customers to use their mindfulness and present moment skills again to enjoy the night and take a moment to pause and reflect the events that are occurring around them during this night out either enjoying a drink alone or with a friend or just sitting down to enjoy a meal with a drink on the side.

Isn’t it a nice night for a drink? The statement “Isn’t it a nice night for a drink?” allows the customer to question and reflect on the present moment, using their mindfulness skills to ruminate on how their night is going both in the bar atmosphere and outside.

Doesn’t that cold [drink] feel great in your hand? This statement poses a question to the customers of this study and asks them if what they are currently experiencing, or soon will

experience, the cold beverage of choice in their hand feels great. This statement invites the customers to reflect on how their own bodies are reacting to the stimulus in the environment after ordering their beverage to enjoy. This statement allows the customer to use mindfulness skills, and practice being in the present moment.

Enjoy every sip. “Enjoy every sip,” is a quick statement that encourages the customer to practice mindfulness and be focused on the present moment.

Live your best life. “Live your best life,” is a novel statement that has recently been gaining traction in mainstream media and is widely used by teens and young adults. However, when stated to a customer it suggests one should live a life following their values, through committed actions and practicing being in the present moment to make their own version of their best life happen.

The dependent variables within this study is the tips received from the customers and percentage of tip to total bill. Customers included in the randomized group that receive intervention would receive a prepared statement, while the control group did not receive a prepared statement. Although the control group did not receive a prepared statement, the experimenter still delivered an appropriate statement (e.g., “How is your drink?” “Can I get you anything else?”) as to continue providing quality service to the customers. The permanent product that was recorded was the total bill amount, and total tip amount. Additional information recorded was the gender of each customer.

Interobserver Agreement. Interobserver agreement was recorded by an independent experimenter. An agreement was counted if both the main experimenter and the experimenter taking IOA recorded the same number value for tips received. A disagreement was counted if the main experimenter and the experimenter taking IOA did not record the same value for tips received. IOA was calculated using a trial-by-trial calculation; number of agreements over total

number of trials = X multiplied by 100. The complete IOA for this study was $18/18 = 1 * 100 = 100\%$. IOA was conducted during 32.7% of all trials recorded.

Procedure

This study was approved by Southern Illinois University Carbondale's on campus Human Subject Committee guidelines before data collection was recorded on any human customers that took part in this research. All trials of this study were completed using a randomized control trial. Randomization for trials was determined by using an online coin flipping generator, heads placed the customer in the control group, while tails placed the customer in the intervention group. An online randomizing number generator was also used to assign each customer in the intervention a phrase that would be stated to them. All six phrases were labelled as follows when assigned randomly: 1) "Take in the night.," 2) "Take a moment to enjoy the night.," 3) "Isn't it a nice night for a drink?," 4) "Doesn't that cold drink feel great in your hand?," 5) "Enjoy every sip.," 6) "Live your best life." When data was being recorded at location one, paper data sheets were used to record the information (Table 1), while all data being collected at location two was electronically recorded on each experimenter's personal cellular phone with the use of a spreadsheet application. All data sheets and spreadsheets were prepared and filled with all randomized components prior to the collection of data to make the process more streamline and turnover of new customer data more quickly. Each experimenter and the bartender had a copy of the prepared data sheet in front of them to reference between customer interactions.

Whenever a customer approached the bar, the bartender would greet them, and ask for their drink order. Upon returning with the customers drink order the bartender would provide a general control statement (e.g., "Can I get you anything else?" "Let me know if you need anything.") if assigned to the control group. All additional conversation was kept to a minimum unless it was related to a bartending service or customer need. Once the customer finished their

drink, the bartender would provide their total due. After the customer paid their tab and left, the bartender would retrieve any tips left and pass it to the experimenter(s) to record the amount tipped, along with a copy of the customers receipt to record the total of their bill.

Whenever a customer approached the bar, the bartender would greet them, and ask for their drink order. Upon returning with the customers drink order the bartender would state a randomized statement (see in Table 2) if assigned to the intervention group. All additional conversation was kept to a minimum unless it was related to a bartending service or customer need. A general control statement similar to “Would you like another?” would be asked by the bartender if additional service was needed. If the bartender were to interact with the customer in the intervention group more than initial contact, and additional mindfulness statement was not given during subsequent interactions. Once the customer finished their drink, the bartender would provide their total due. After the customer paid their tab and left, the bartender would retrieve any tips left and pass it to the experimenter(s) to record the amount tipped, along with a copy of the customers receipt to record the total of their bill.

Data Analysis

The data analysis of this study includes three different statistical analyses conducted. First a t-test was conducted to determine if there was evidence of a statistically significant difference between the statements received when compared to control statements received. To determine if a t-test is significant the p-value ($<.10$) is compared to a chosen alpha level. Second, a one-way ANOVA, with post hoc was conducted to determine if there was a statistically significant difference between each of the six individual statements used and the control statements given to customers. To determine if each of the six statements were statistically significant, their individual p-values are compared to the alpha level in this within analysis. Third, two two-way ANOVAs (also two-factor ANOVA) were conducted to determine if there was a statistically significant

difference between male/female customers and intervention statements given, male/female customers and tip received, and lastly male/female customers and total percentage of tip received compared to their tab. Similar to the one-way ANOVA, a two-way ANOVA provides a p-value for each factor being analyzed, from here the p-value are compared to the alpha value to determine if any factor was statistically significant.

CHAPTER 3

RESULTS

Raw data can be viewed for all customers who received intervention statements in Table 3, along with all customers who received control statements in Table 4. The average of customers tip value combined was \$1.17 with a range of \$0.00 to \$2.50. Customers in the intervention group average tip value was \$1.29, with a range of \$1.00 to \$2.50. The control group average tip value was \$1.06, with a range of \$0.00 to \$2.50. The average of male customer tip value was \$1.18, with a range of \$0.00 to \$2.00, while the female customer average tip value was \$1.16, with a range of \$1.00 to \$2.50.

First, a two-tailed t-test was conducted to determine if there was a statistically significant difference in tips received between two groups, the first group were customers who received mindfulness statements as their intervention, while the second group received control statements served as the control. This t-test indicated that the differences between the two groups was statistically significant, $t(53) = 1.68$, $p < .098$. The intervention group that received mindfulness statements was proven to increase tip value received overall. Figure 2 displays the visual analysis of the t-test that was conducted.

An additional two-tailed t-test was conducted to determine if there was a statistically significant difference in percentage of tips compared to total bill amount between both intervention and control groups. This t-test indicated that the differences between the two groups was not statistically significant, $t(5) = 0.887$, $p < .378$. Figure 3 displays the visual analysis of this t-test.

The third statistical analysis conducted was a one-way ANOVA to determine if the six mindfulness statements used were statistically significant when compared to the control statement control. This one-way ANOVA compared each of the six mindfulness statements individually to the control group. Results for mindfulness statement (1) "Take in the night," compared to the

control statements was not significant. Mindfulness statement (2) “Take a moment to enjoy the night,” compared to the control statements also lacked statistical significance, however, mindfulness statement (3) “Isn’t it a nice night for a drink?” when compared to the control statements did appear to be significant. When comparing mindfulness statement (4) “Doesn’t that cold drink feel great in your hand?” to the control statements, there was no significance indicated. Similarly, when mindfulness statements (5) “Enjoy every sip,” and (6) “Live your best life,” were also compared to control statements, both comparisons came back insignificant. There was a significant effect $F(6, 48) = 1.799, p = .11$.

The fourth statistical analysis that was conducted was a two-way ANOVA to determine if male/female customers and mindfulness statements/control statements were significant for tip value received. This 2x2 ANOVA indicated that there was no significance between factors, and their tipping value when receiving mindfulness statements or control statements, as seen in Figure 5. Results of this two-way ANOVA were $F(1, 51) = 0.051, p = .82, F(1, 51) = 1.106, p = .29$, with no significant interaction, $F(1, 51) = 2.467, p = .12$.

A second two-way ANOVA was conducted to find the significance of male/female customers and mindfulness statements/control statements where the percentage of tip compared to their total bill amount given. This two-way ANOVA indicated that there was not statistical significance between the male/female and statements received on percentage of tip to total bill amount, see Figure 6. Results of this two-way ANOVA were $F(1, 51) = 0.448, p = .50, F(1, 51) = 1.439, p = .23$, with no significant interaction $F(1, 51) = 0.693, p = .40$.

Ultimately, the results above indicate that providing mindfulness statements can increase the value of tips received. When mindfulness statements were compared to statements, mindfulness statements were shown to be statistically significant. More specifically, one of the six

prepared mindfulness statements were proven significant, “Isn’t it a nice night for a drink?”, compared to the other five statements.

CHAPTER 4

DISCUSSION

The current study sought to expand on contextual-based approaches used within an OBM setting and introduce an area worth expanding upon in the field of OBM with ACT processes being placed in the work environment (Hayes et al., 2001). Practices in mindfulness, and the use of ACT can increase psychological flexibility, can produce evidence-based behavior change (Hayes, 1999). This behavior change can be implemented through manager feedback, or a service worker through interactions with a customer (Reid et al., 2015; Crowell, 1988). In the current randomized control trial, customers who were placed within the intervention group received exposure to a mindfulness statement following their drink order at a bar. Customers who were placed within the control group received control statements following their drink order. The tip value received between both groups were analyzed and indicated a significance in increase from customers who received mindfulness statements following their orders. These results indicate that mindfulness statements can increase overall tip value received by bartenders, suggesting OBM settings can benefit from additional research completed using ACT-based interventions.

Tipping proves to be an important aspect of the United States economy, though not a recent phenomenon, and involves nearly \$50 billion a year from the food industry, with trillions of additional revenues created from various other service industries each year (Azar, 2011; Azar, 2004). Paired with a high rate of turn over for restaurant workers each year, exceeding \$1.8 billion, and low wages, the ability to increase wages in a service industry may have a rippling effect throughout the industry (Berta, 2006; Azar; 2011). Although research on how to increase tip values has not been extensively researched from an OBM stand point. Lynn (1996, 2003, 2005) has conducted multiple research endeavors arguing that managers can play a role in training employees and ultimately increase their wages, while reducing turn over (Azar, 2011). In a recent

study conducted by Lynn and McCall (2009), managers trained wait staff employees on a list of fourteen tips (e.g., smiling, give customers candy, introducing yourself). Additional studies using these same fourteen tips found that wait staff were able to increase their tips by an estimated twenty percent (Lynn, 2006). Although many of the fourteen tips trained were effective, further research has been conducted on the generalizability of the statements amongst race of customers and upscale establishments and found that some tips were not as effective (e.g., drawing smiley faces and squatting near tables) (Rind & Bordia, 1996; Leodoro & Lynn, 2007).

In a previously mentioned study by Olson et al., (2001) creating an antecedent intervention for employees were discussed to increase their work motivation. Providing employees with an appropriate antecedent intervention within the work environment could result in better work motivation, less turn over, and increase attitude towards customers. However, in a more recent study completed by Curtis, Upchurch and Severt (2009) employee motivation and organizational commitment of tipped and untipped employees were compared. However, employees placed in tipping roles, and untipped roles provided little significance of motivation or commitment to the organization. Although findings were insignificant in providing a comparison this research can be used to expand on the current study as well as future studies, by introducing a level of motivation to either the employees working for tips or potential customers who give tips. Additional research for increasing customer motivation related to tipping is needed.

The current study expands on the previous literature and provides an alternative approach for bartenders and other service workers alike to enhance tipping received from their customers within the service industry. An ACT-based approach to OBM should be researched further to develop additional avenues to increase tips received, through skills training, implementing motivating operations or including more extensive training from managers to aid in reducing turn-over.

There are many different limitations to this current study that should be addressed and considered for future researchers interested in replicating this study. Firstly, the location of the two settings used throughout this study were different, with one mainly functioning as a family restaurant, and the other functioning as a neighborhood bar with no food. These differing locations could have affected the results of the study due to the difference in environmental settings and threatens the external validity of the study. The first location served as a family-welcome environment with a main focus on meals and formal events, that featured a bar. The second location used was not family friendly for minors, and solely focused on alcohol sales. For future researchers, one location may be considered, either with or without food service included. This would allow for the customers in the study being engaged in more closely related drinking behavior unlike what was seen at various locations; however, various locations can also help increase external validity and generalization of the study being conducted. The second limitation regarding location was the setting the current study's establishments were placed. Both settings across venues were rural, with a range of residents between 7,600-4,300 (Current Population Demographics and Statistics for Illinois by age, gender and race, 2019). This may have led to less individuals coming to each establishment or repeat customers over the course of data collection. Future researchers should consider this in their study and find vastly different locations, or all similar locations if collecting data over a period of time with multiple locations. Additional measures could also be put in place to limit the chances of repeat customers appearing in the study with a consent form, collecting the customer's name or any other identifying demographic information.

Another limitation within this study is the difference in the price of drinks sold across the locations. At location one drink prices were drastically higher than that of location two. The price of drinks being offered may attract customers from a particular demographic or socioeconomic

status. This should be considered in future research by using locations with similar range in drink prices. Additional information, such as each customer's socioeconomic status and customer's age could also be requested from each customer engaging in the study. This would help identify any significant relations between age and price willing to spend on drinking while also comparing those ranges to their tipping behavior overall.

Furthermore, at both locations the bartenders were female. This could affect tips from customers dependent of their personal views on women or based off of their attraction to the bartender serving them. In future research this could be looked at more closely with the addition of a male bartender to find the effects that sex of the bartender has on tips received. Additionally, within comparisons could be conducted to see if there is a significant difference between sex bartending and sex tipping for each condition. Lastly, future research may consider adding an attraction scale for customers to complete, and conduct an analysis on mindfulness statements given, attraction level, and tips received.

An additional limitation found within this study is that the bartenders may have had pre-existing relationship with the customers. Both locations used in this study had local, repeat customers, who may have been more familiar to the bartenders due to previous interactions. It is unclear if a pre-existing relationship between bartenders and customers may have positively or negatively affected the tipping during intervention and control groups. Future researchers may consider using a guest bartender at locations being used to eliminate any rule-governed behavior associated with a given bartender and increase external validity pertaining to pre-existing relationships.

Another limitation that may have affected the results of the study would be the bartender's motivation to state the ACT-based statements aloud to customers, and fear of embarrassment that statements may come off as out of the ordinary. This limitation could have interfered with the

confidence of the bartender and could have been reflected upon the customers and resulted in a lower tip amount received. In future studies, bartenders should practice stating the tips aloud to become more comfortable presenting them in a work environment or develop additional intervention statements that appear more frequently in casual conversation while still having an ACT-based element.

Reactivity from customers in this study is also a limitation. While one or more experimenters were visible at all times during the study. Customers may have reacted differently to unfamiliar faces of the experimenters, especially to those customers who frequently visit either location. Customers may have also noticed data sheets being used throughout the study at location one. Although a distracting experimenter was included throughout data collection, customers may have reacted in a negative way. In the future, researchers should record all data using their cellular phone with a spreadsheet app installed to reduce potential reactivity from customers.

The six mindfulness statements prepared for the customers may have been a limitation for multiple reasons. First, since the statements were randomized the number of times each statement was used was not even throughout the study. The range of statements chosen were between 7-2 times. This may have had a large effect on the effectiveness of the statements being presented, since many statements were exposed to customers less frequently than others. Future researchers may consider using less statements, aiming for even distribution across statements being provided, a similar amount of statements with a larger minimum amount of times each statement is stated, or less statements with higher exposed to a limited variety of mindfulness statements. Second, the randomized mindfulness statements given to customers may not have been applicable for each customer receiving them. External factors unknown to experimenters may have affected the customer and the present conditions occur within their environment and “thoughts.” Third, the mindfulness statements provided to the customers may not have functioned the way experimenter

had intended them to for each customer. Since there is no way to know what external factors may have been influencing the customers while the statements were given the statements may have had a negative effect on their tipping. Fourth, the experimenter was unsure as to how much exposure to mindfulness the customers have come in contact with throughout their life leading to this study. If customers have had little exposure to mindfulness in their lives, the statements may not have triggered a mindful reaction or created a mindful reflection on their current environment. Likewise, if customer's have had previous exposure to mindfulness in their lives the statements received may have triggered a mindful reflection, however there is no certainty that a potential mindfulness reflection was a positive or negative experience for each customer. In the future, researchers may include a condition that exposes customers to a mindfulness activity prior to engaging in tipping.

Lastly, social norms and rule-governed behavior may have an effect on the tip value received. Azar (2003) states that tipping is an action that is taken to ensure quality service will be provided, however many times individuals tip after service has already been completed, leaving no effect on how the service was provided. Secondly, tipping in hopes to receive quality service will occur the next time the customer visits is also not the answer to why tipping continues to take place, as seen by individual who travel and will not be visiting the same location in the future. Azar (2003) suggests tipping may be a by-product of social norms, creating rule-governed behavior and escape maintained behaviors. In the current study, many customers tipped with a traditional \$1 per drink ordered. This behavior could be seen as a way to escape social judgement from others while continuing to live by rule-governing behaviors set forth by an individual's community.

Future research should increase the external validity of their studies by replicating this research in numerous locations, by doing so the generalizability of this study will be strengthened. Although the current study took place in a rural environment, future research may be interested to see how the external validity is increased at urban locations, more densely populated locations, or

in multiple locations with similar prices. This current study may also be replicated in a chain restaurant or bar, this would stabilize the prices, drinks offered and allow for similar environments for the customers across settings.

Secondly, future researchers may include customers who order food in addition to alcoholic beverages, location permitting, to see if food service effects the tipping when mindfulness statements are given throughout the course of a meal and multiple interactions with the customer. Researchers could potentially assign specific mindfulness statements to typical food service tasks (e.g., refilling a drink triggers a mindfulness statement relating to the topic).

Future research is needed to expand on the effects of ACT-based treatments in the service industry, specifically regarding tips. Future studies may consider providing the bartender, or other service provider, with an ACT-based questionnaire or ACT session (e.g., meditation) prior to working to see the effects that ACT-based interventions have on the server and the tip value outcome received. Additional research is also needed in the realm of drinks consumed, level of sobriety, and ACT-based treatments. The current study only recorded one drink over per session, however future research may consider looking at the effects differing levels of sobriety interfere with tipping value when given a mindfulness statement throughout the course of multiple orders. Alternatively, individuals who receive an ACT-based session (e.g., reflecting on ACT principles) prior to drinking may also be consider as a population to compare tip values against in future research.

Future researchers may alter the current study by applying this research to other fields outside of bartending that also commonly receive tips for their services. Alternative services that could include mindfulness statements throughout their conversations may be Uber drivers, hair dressers, nail technicians, massage therapists, tattoo artists or grocery baggers. By providing mindfulness statements to customers in additional service industries external validity can be seen

across career paths and strengthen the use of mindfulness statements in more social interactions and have a positive effect on tip amount received.

The current study expanded on the use of ACT-based statements in an OBM setting and suggests that ACT interventions can have a place within the OBM field. The use of ACT within an industrial setting is not heavily researched and is a ripe area for expansive research to take place. The field of OBM could benefit from further research on using ACT within the work environment and expand from primarily human service environments to the service industries with a large variety of research to be conducted surround tips amounts received and the implementation of ACT on serving staff and customers alike.

REFERENCES

- Ayllon, T., & Azrin, N. H. (1964). Reinforcement and instructions with mental patients. *Journal of the Experimental Analysis of Behavior*, 7, 327–331. <http://dx.doi.org/10.1901/jeab.1964.7-327>
- Azar, O. (2003). What sustains social norms and how they evolve? The case of tipping. *SSRN Electronic Journal*. doi: 10.2139/ssrn.397883
- Azar, O. H. (2004). The history of tipping – From sixteenth-century England to United States in the 1910s. *Journal of Socio-Economics*, 33(6), 745–764.
- Azar, O. (2011). Business strategy and the social norm of tipping. *Journal Of Economic Psychology*, 32(3), 515-525. doi: 10.1016/j.joep.2011.03.018
- Berta, D. 2006. Worker turnover rate continues to climb. People Report. http://www.peoplereport.com/newsclippings/200611_NRN/postconferenceCoverage.pdf.
- Bond, F. W. (2004). Acceptance and commitment therapy for stress. In S. C. Hayes & K. D. Strosahl (Eds.), *A practical guide to Acceptance and Commitment Therapy* (pp. 275-293). New York: Springer-Verlag.
- Bond, F. W., Hayes, S. C., & Barnes-Holmes, D. (2006): Psychological flexibility, ACT, and organizational behavior, *Journal of Organizational Behavior Management*, 26:1-2, 25-54
- Brown, P. L., (2001) Communicating the benefits of the behavioral approach to the business community, *Journal of Organizational Behavior Management*, 20:3-4, 59-72
- Crowell, C., Anderson, D., Abel, D., & Sergio, J. (1988). Task clarification, performance feedback, and social praise: Procedures for improving the customer service of bank

tellers. *Journal of Applied Behavior Analysis*, 21(1), 65-71. DOI: 10.1901/jaba.1988.21-65

Current Population Demographics and Statistics for Illinois by age, gender and race. (2019).

Retrieved from <https://suburbanstats.org/population/how-many-people-live-in-illinois>

Curtis, C. R., Upchurch, R. S., & Severt, D. E., (2009) Employee Motivation and Organizational Commitment: A Comparison of Tipped and Nontipped Restaurant Employees, *International Journal of Hospitality & Tourism Administration*, 10:3,253-269, DOI:10.1080/15256480903088469

Dougher, M. J., & Markham, M. R. (1994). Stimulus equivalence, functional equivalence, and the transfer of function. In S. C. Hayes, M. Sato, & K. Ono (Eds.), *Behavior analysis of language and cognition* (pp. 71-90). Reno, NV: Context Press.

Dougher, M. J., & Markham, M. R. (1996). Stimulus classes and the untrained acquisition of stimulus functions. In T. R. Zentall & P. M. Smeets (Eds.), *Stimulus class formation in humans and animals* (pp. 137-152). Amsterdam: Elsevier.

Dymond, S., & Rehfeldt, R. A. (2000). Understanding complex behavior: The transformation of stimulus functions. *Behavior Analyst*, 23, 239–254. <http://dx.doi.org/10.1007/BF033920>

13

Fletcher, L., & Hayes, S. (2005). Relational frame theory, acceptance and commitment therapy, and a functional analytic definition of mindfulness. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 23(4), 315-336. DOI: 10.1007/s10942-005-0017-7

Hayes, S., Barnes-Holmes, D., & Roche, B. (2001). *Relational frame theory: a post-skinnerian account of human language and cognition*. Nueva York: Kluwer Academic.

Hayes, S., Bunting, K., Herbst, S., Bond, F., & Barnes-Holmes, D. (2006). Expanding the scope of organizational behavior management. *Journal of Organizational Behavior*

- Management*, 26(1-2), 1-23. DOI: 10.1300/j075v26n01_01
- Hayes, S. C., Follette, V., & Linehan, M. (Eds.) (2004). *Mindfulness and acceptance: expanding the cognitive-behavioral tradition*. New York: Guilford Press.
- Hayes, S. C. (1991). A relational control theory of stimulus equivalence. In L. J. Hayes & P. N. Chase (Eds.), *Dialogues on verbal behavior: the first international institute on verbal relations* (pp. 19-40). Reno, NV: Context Press. Hayes, S.
- Hayes, S. C. (1993). Analytic goals and the varieties of scientific contextualism. In S. C. Hayes, L. J. Hayes, H. W. Reese, & T. R. Sarbin (Eds.), *Varieties of scientific contextualism* (pp. 11-27). Reno, NV: Context Press.
- Hayes, S. C. (2002). Buddhism and acceptance and commitment therapy. *Cognitive and Behavioral Practice*, 9, 58–66.
- Hayes, S. C., & Strosahl, K. D. (2004). *A practical guide to acceptance and commitment therapy*. New York: Springer-Verlag.
- Hayes, S. C., Strosahl, K., & Wilson, K. G. (1999). *Acceptance and commitment therapy: an experiential approach to behavior change*. New York: Guilford Press.
- Hayes, S., Strosahl, K., & Wilson, K. (2016). *Acceptance and commitment therapy: the process and practice of mindful change*. New York, NY: Guilford Press.
- Hayes, S. C., Wilson, K. G., Gifford, E. V., Follette, V. M., & Strosahl, K. (1996). Emotional avoidance and behavioral disorders: a functional dimensional approach to diagnosis and treatment. *Journal of Consulting and Clinical Psychology*, 64, 1152–1168.
- Leodoro, G., and M. Lynn. 2007. The effect of server posture on the tips of whites and blacks. *Journal of Applied Social Psychology* 7 (2): 201-9.
- Lynn, M. 1996. Seven ways to increase your servers' tips. *Cornell Hotel and Restaurant Administration Quarterly* 37 (June): 24-29.

- Lynn, M. 2003. Tip levels and service: An update, extension and reconciliation. *Cornell Hotel and Restaurant Administration Quarterly* 42:139-48.
- Lynn, M. 2005. Increasing servers' tips: What managers can do and why they should do it. *Journal of Foodservice Business Research* 8 (4): 89-98.
- Lynn, M., & McCall, M. (2009). Techniques for increasing servers' tips. *Cornell Hospitality Quarterly*, 50(2), 198-208. doi: 10.1177/1938965509334221
- Locke, E. A., & Latham, G. P. (1990). A theory of goal setting and task performance. Englewood. Cliffs, NJ: Prentice Hall.
- Locke, E. A., & Latham, G. P. (2002). Building a practical useful theory of goal setting and task motivation. *American Psychologist*, 57, 705-717.
- Olson, R., Laraway, S., & Austin, J. (2001). Unconditioned and conditioned establishing operations in organizational behavior management. *Journal of Organizational Behavior Management*, 21(2), 7-36.
- Reid, D., Parsons, M., & Jensen, J. (2015). Maintaining Staff Performance Following a Training Intervention: Suggestions from a 30-Year Case Example. *Behavior Analysis In Practice*, 10(1), 12-21. DOI: 10.1007/s40617-015-0101-0
- Rind, B., and P. Bordia. 1996. Effect on restaurant tipping of male and female servers drawing a happy, smiling face on the backs of customers' checks. *Journal of Applied Social Psychology* 26:218-25.
- Roscoe, E., Fisher, W., Glover, A., & Volkert, V. (2006). Evaluating the Relative Effects of Feedback and Contingent Money for Staff Training of Stimulus Preference Assessments. *Journal of Applied Behavior Analysis*, 39(1), 63-77. doi: 10.1901/jaba.2006.7-05
- Sidman, M. (1971). Reading and auditory-visual equivalences. *Journal of Speech & Hearing*

Research, 14, 5–13. <http://dx.doi.org/10.1044/jshr.1401.05>

Skinner, B. F. (1953). *Science and human behavior*. New York: Macmillan

Skinner, B. F. (1957). *Verbal behavior*. The B. F. Skinner Foundation. Cambridge, MA:
Prentice Hall.

Sulzer-Azaroff, B., & Consuelo de Santamaria, M. (1980). Industrial safety hazard reduction
through performance feedback. *Journal of Applied Behavior Analysis*, 13(2), 287-295. doi:
10.1901/jaba.1980.13-287

Törneke, N. (2010). *Learning RFT: an introduction to relational frame theory and its clinical
application*. Oakland, Calif.: New Harbinger Publications.

APPENDIX B

Table 2
Mindfulness Statements

Statement Number	Mindfulness Statement
1	Take in the night.
2	Take a moment to enjoy the night.
3	Isn't it a nice night for a drink?
4	Doesn't that cold drink feel great in your hand?
5	Enjoy every sip.
6	Live your best life.

APPENDIX C

Table 3
Raw Data- Intervention Statements

Group	Statement	Gender	Tip	Percentage
IV	2	M	\$1.00	20%
IV	5	M	\$1.00	33%
IV	3	M	\$2.00	33%
IV	2	F	\$1.00	20%
IV	6	M	\$1.00	33%
IV	2	F	\$1.00	20%
IV	1	M	\$2.00	24%
IV	6	M	\$1.00	33%
IV	4	M	\$1.00	33%
IV	2	F	\$1.00	20%
IV	3	F	\$1.00	20%
IV	1	F	\$1.00	25%
IV	2	M	\$2.00	33%
IV	4	M	\$1.50	33%
IV	1	M	\$1.00	25%
IV	4	F	\$1.00	17%
IV	3	F	\$1.00	20%
IV	4	M	\$1.00	33%
IV	3	M	\$2.00	33%
IV	2	M	\$1.00	26%
IV	3	F	\$2.50	38%
IV	6	F	\$1.00	67%
IV	3	M	\$2.00	27%
IV	6	F	\$1.00	17%
IV	5	M	\$1.00	6%
IV	5	F	\$1.00	33%
IV	2	M	\$2.00	17%

APPENDIX D

Table 4
Raw Data- Control Statements

Group	Gender	Tip	Percentage
C	M	\$1.00	33%
C	M	\$1.00	33%
C	F	\$1.00	20%
C	M	\$1.00	17%
C	M	\$0.00	0%
C	F	\$1.00	33%
C	M	\$1.00	33%
C	M	\$0.00	0%
C	M	\$1.00	33%
C	F	\$1.00	33%
C	M	\$1.00	33%
C	M	\$1.00	17%
C	F	\$1.00	33%
C	M	\$1.00	25%
C	M	\$0.00	0%
C	M	\$1.00	33%
C	M	\$2.00	44%
C	M	\$1.00	50%
C	M	\$1.00	40%
C	F	\$2.50	38%
C	F	\$1.00	20%
C	F	\$1.00	67%
C	M	\$1.75	41%
C	M	\$1.00	40%
C	M	\$1.00	40%
C	M	\$1.00	40%
C	M	\$1.50	33%
C	M	\$2.00	25%

APPENDIX E

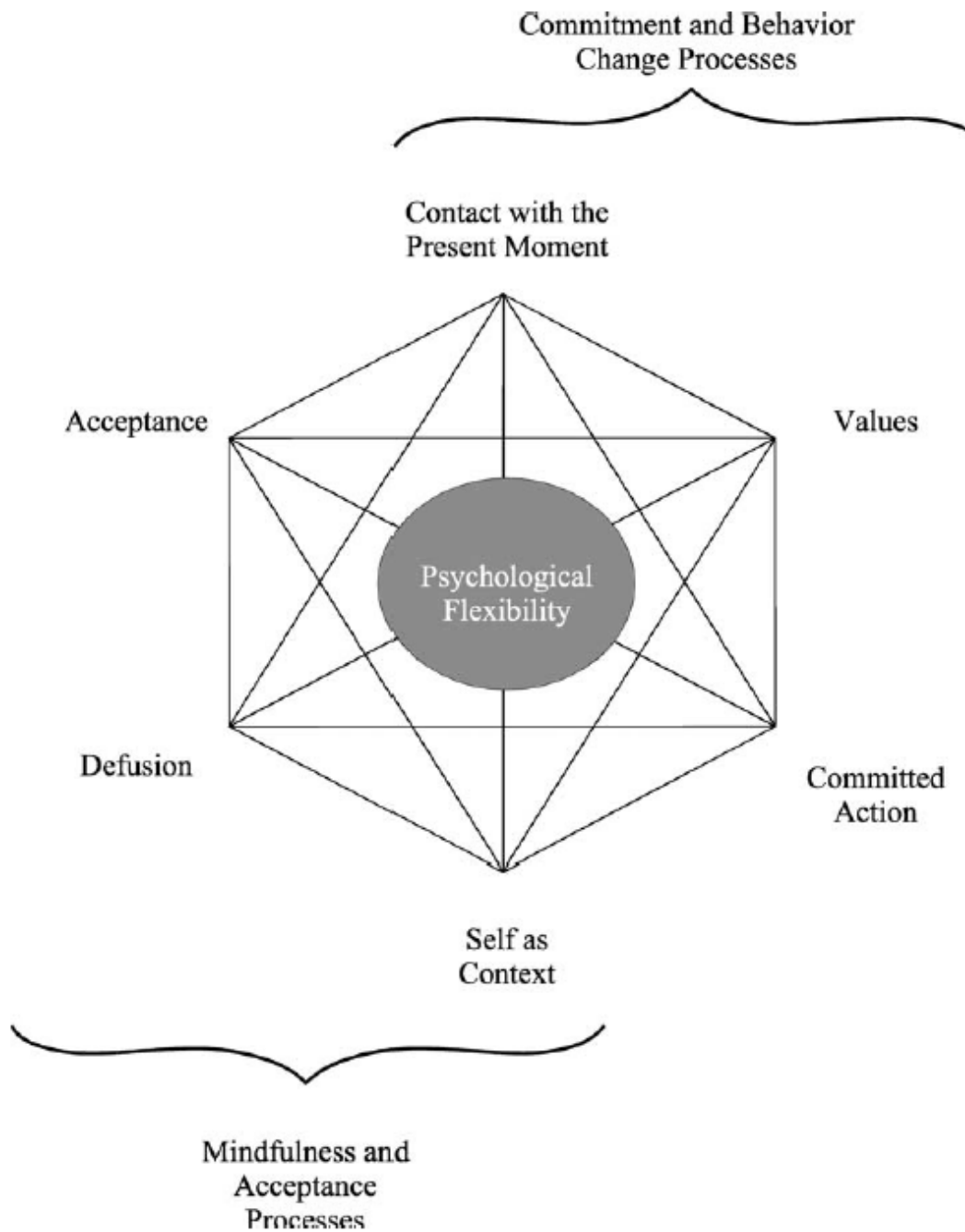


Figure 1. Psychological Flexibility Hexaflex. Adapted from “Relational Frame Theory, Acceptance and Commitment Therapy, and a Functional Analytic Definition of Mindfulness” by L. Fletcher and S. Hayes, 2005, *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 23(4), 315-336.

APPENDIX F

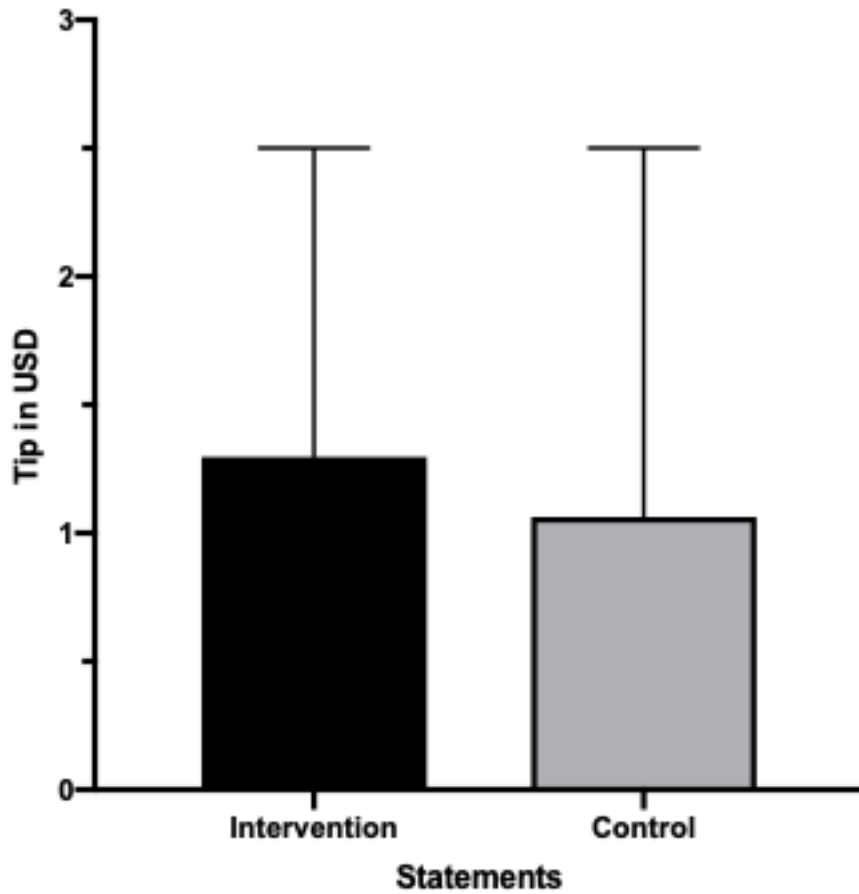


Figure 2. This figure represents the t-test conducted that compared mindfulness statements and control statements to tip value received. The y-axis represents the range of tips received, while the x-axis displays the groups that received mindfulness statements or control statements. The boxes represent the mean tip received; the error bar attached to the top of each box indicates the range of tip amount received for each group.

APPENDIX G

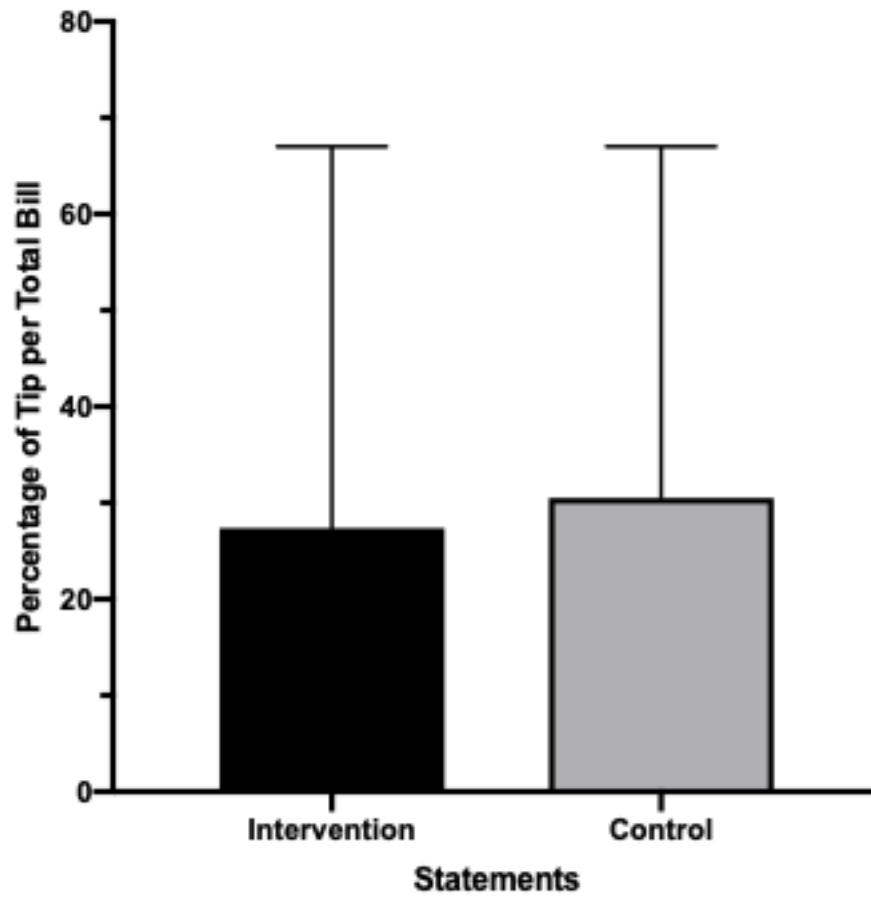


Figure 3. This figure represents the percentage of tips received per total bill value, when given a mindfulness statement or a control statement. The y-axis represents the range of percentage of tip value received per total bill amount, while the x-axis displays the groups that received mindfulness statements or control statements. The boxes represent the mean of tip value received while the error bar attached to the top of each box indicates the range of percent of tip value per total bill received.

APPENDIX I

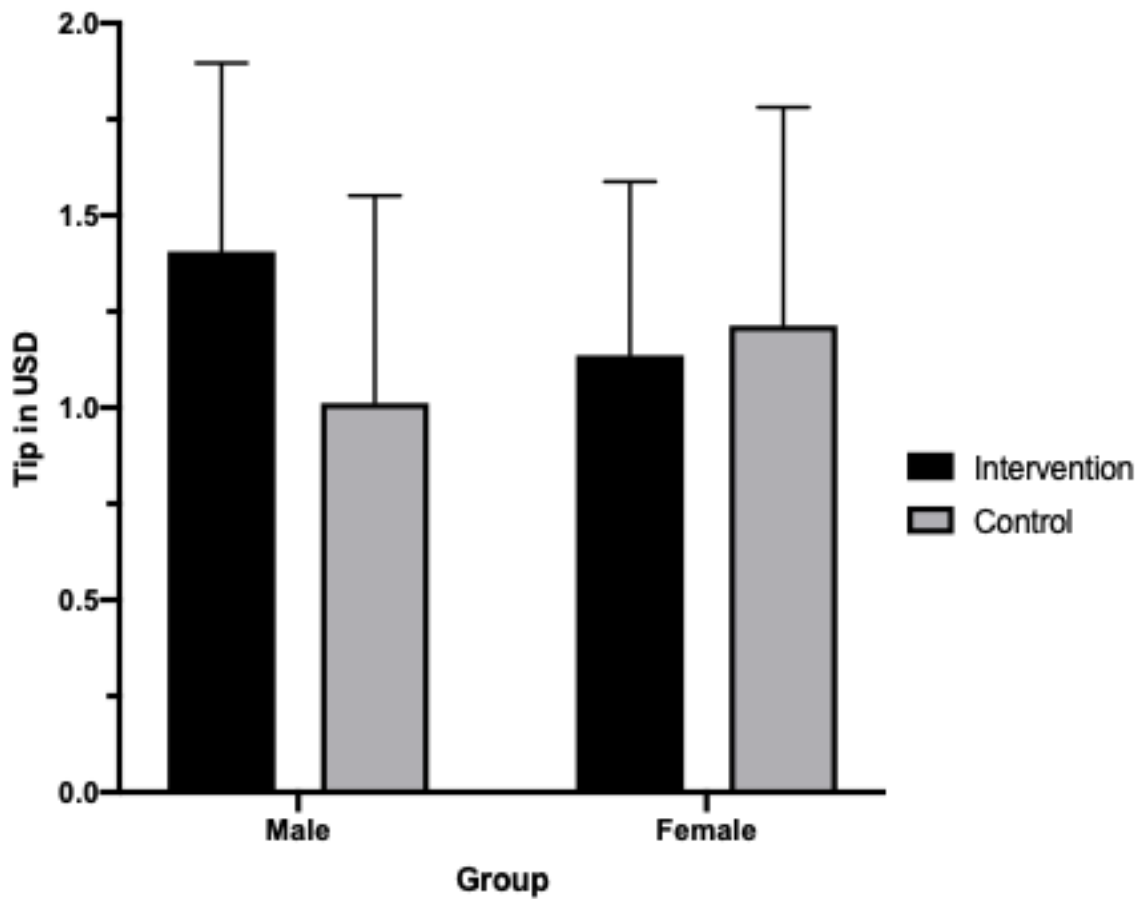


Figure 5. Figure 5 displays this two-way ANOVA with the y-axis indicates tips in USD, while the x-axis indicated which male or female group. The black and gray boxes represent the mean of tip value received, while the error bar from the top of the boxes indicated the highest tip value received.

APPENDIX J

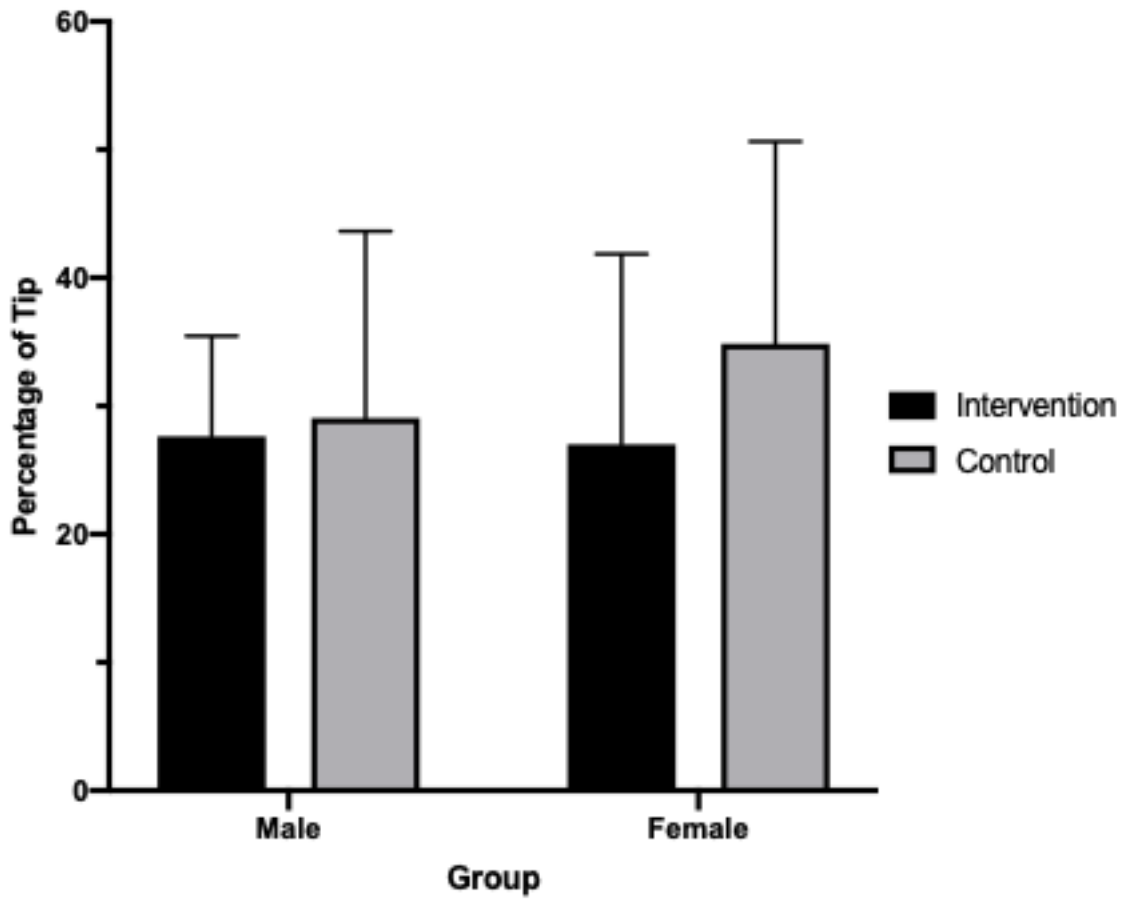


Figure 6. This figure displays the results of this two-way ANOVA, with the y-axis indicating the percentage of tip to total bill amount, and the x-axis identifying which group. The black and gray boxes represent the mean of tip percentage. The error bars found at the tip of each box indicated the highest percentage of tip value received.

VITA

Graduate School
Southern Illinois University

Mariah Patz

patzmariah@gmail.com

Southern Illinois University Carbondale
Bachelor of Science, Rehabilitation Services, May 2015

Thesis Paper Title:
ACT-Based Statements Effect on Bartending Tips

Major Professor: Dr. Mark Dixon