How Free is "Free?": Restrictive Agency and Optimism

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HOW FREE IS “FREE?”: RESTRICTIVE AGENCY AND OPTIMISM

by

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A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major Program in Psychology
in the College of Sciences
and in the Burnett Honors College
at the University of Central Florida
Orlando, Florida

Spring Term

2020
ABSTRACT

This study explored the effect of restricting participants’ agentic choice on their levels of optimism. This study used the pre-test, post-test design to investigate the impact of non-agentic choice in meaningful scenarios on feelings of optimism. 147 participants completed a measure of optimism, were assigned to conditions of simulated choice, and were instructed to freely write about their decisions. The association between personality traits and optimism was also explored. Study findings showed that assigning participants to restrictive and agentic conditions had no effect on optimism. However, a significant negative correlation trait neuroticism and optimism was found. Content analyses run on the responses found that the most common themes, in order, were seeking change in employment, seeking support from family and friends, and public assistance. Additional research, with a larger sample, should be completed to more fully determine the nature of the relationship among these variables.
ACKNOWLEDGMENTS

I thank Drs. Grace White, Karina Cespedes, and Matthew Chin of the University of Central Florida for their mentorship and assistance in advancing this thesis. I also thank all research assistants of Dr. Grace White’s research group, Personality & Relationship Development/Dynamics, for their input in my thesis.
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INTRODUCTION

Within the field of psychology, choice is a very contentious topic studied from various perspectives. A body of literature concerning studies on the effect of choice on several disparate variables pertaining to human behavior has produced mixed findings since the first studies on the topic were conducted. These studies measured such differing dependent variables as mental health, mental acuity, self-confidence, quality of choices, etc.; and yet, findings can often differ for each of these variables and others. For instance, Timmons and Byrne (2019) found that participants were less able to defend hypothetical moral decisions similar to the famous trolley problem (i.e., ending one person’s life as a result of one’s own actions versus allowing several lives to end as a result of inaction) as a result of judging a greater number of moral situations, a phenomenon that the researchers term a “moral fatigue effect.”

Conversely, Vohs et al. (2005) found negative effects on self-regulatory variables, such as stamina and self-reported involvement in activities, from being in a situation where no choices are available. Rainio (2010) had a sample of schoolchildren placed into differing play situations with differing levels of choice and found that children in play situations in which they are discouraged from making their own choices are more likely to break rules and become less motivated to act, creating a lowered self-efficacy and sense of capability.

Among the most frequently cited studies on choice are the works of Iyengar and Lepper (1999; 2000) on decision fatigue, whose findings are consistent with the trend of more choices resulting in lesser-quality decisions. The studies are instrumental to gauging this discrepancy, partially in terms of the sheer number of citations and elaborative research they have inspired,
but also in terms of the designs of the studies themselves. Two of the three studies from the article had participants decide on what candies to buy and eat (Iyengar & Lepper, 2000). We are concerned with the frivolity of this design of using candy to measure choice quality. Moving forward, we are intentionally asking participants to make choices regarding simulated dire situations instead of decisions involving disposable income, because this difference in design is expected to change the relationship participants have with choice.

The theoretical framework of Iyengar and Lepper (2000) also warrants scrutiny. Before designing the studies, Iyengar and Lepper examined several previous studies that describe various human traits in proximity to choice. The introduction of their 2000 study refers to these publications, which include works that describe the advantages of free choice, as well as some that limit their findings, pointing to subjective feelings of stress following decision-making. Much of the introduction unpacks the content of a 1991 study by Markus and Kitayama. This study compared Japanese and American subjects to explore how a person’s cultural identity influences their relationship to choice. The study has several problematic elements.

A glaring flaw in the study is its failure to account for intra-national demographic diversity. The United States of 1991 was substantially more multicultural than the Japan of 1991, and it cannot be taken for granted that the uniquely Western feature of choice fetishization is generalizable to all ethnicities, genders, and socioeconomic classes of Western cultures. Markus and Kitayama take care to discuss the prevalence of interdependent sense of self across not only East Asia, but also Africa, Latin America, and even regions considered “Western” such as southern Europe. Despite this distribution of culturally-bound interdependent identities, no
demographic items were given in their research that would distinguish results of Americans from
different cultures from one another. Researchers citing Markus and Kitayama have already
criticized the absence of gender-segregated data collection in their study design after themselves
finding an effect demonstrating the greater propensity of women across cultures to have
interdependent self-concepts (Cross & Madson, 1997).

Lastly, as the research intended to represent “Western culture” was conducted in the
United States, it should be mentioned that this location renders this absence of demographic data
especially problematic, because as a result in law enforcement discrepancies, American
perception of free choice changes structurally depending on race and SES. This difference in
choice perception is particularly true in the emboldenment of White and/or high-earning
Americans to commit white-collar crime out of the belief that it will go unpunished, as opposed
to non-White and/or low-earning Americans who believe that illegal activity is more likely to be
punished (Holtfreter et al., 2008). The findings of Holtfreter et al. (2008) tell us that the over-
propagation of choice may potentially be relegated to specific strata of Western society that are
being overgeneralized to cover the entire population, and that an experiment that uses these strata
as a sample to generalize to an entire population is flawed.

The causes of this increased emphasis on choices and liberty, as well as how we come to
recognize “free choice,” must also be examined. The effect of outside forces on what a person’s
goals and choices are cannot be overstated. Advertising, particularly when targeting children, can
create artificial demand for commercial goods. Burr and Burr (1976) found that children’s
television watching was strongly positively correlated with knowledge of various commodities
from advertisements, that there was no significant difference between age groups and product recognition, and that parents frequently observed highly impressionistic behavior on the part of their children as a result of advertising. An example of impressionistic behavior is making buying requests to the parents for breakfast cereal only to get the included toy prize.

The interplay of culture and systems of power (e.g., the juridical power of law enforcement, the societally-influencing power of mass media) and choice is not a new concept to social scientists. Holzkamp et al. (2013) describe choices that are administered within a framework that is determined by some power over the agent as made in the context of “restrictive agency.” “Restrictive agency” is itself defined as partially relinquishing agency to some other entity/entities in exchange for retaining a degree of diminished agency that is virtually guaranteed (Holzkamp et al., 2013). This term is important because it renders intelligible for researchers a nuanced range of situations in which humans can exercise choice, and how those situational choices affect human well-being.


Intentionality is the presence in agency of intentions that are composed in part of goals and strategies for achieving these goals. Although a choice may be made without intentionality, as in the case of a compelled act like complying with a tax rate, these choices do not reflect
agency because they do not come as a result of a particular goal that an individual has. Goals and intentions, however, may be informed by the environment in which an individual exists.

Forethought is the means by which future situations are given material meaning and come to affect the agent’s own present behavior. Agency is exercised through foresight insofar that these imagined future situations are thought to be vindicated and materialized as a result of present behavior. As forethought is necessarily an imaginative process, simulated situations are thought to give rise to a forethought stabilized through a degree of roleplaying.

Self-reactiveness pertains to self-observation. Self-reactiveness is constituted by agents regarding themselves as parts of their own context, and actualizing their goals accordingly. It is necessarily a self-regulating component of agentic choice, and mediates the abstract conception of an agent’s goals with the agent’s unique material reality.

Self-reflectiveness is the act of appraising one’s own progress towards their goal. If self-reactiveness has agents regard themselves as objects within the environment that colors their proximity to their goal, self-reflectiveness has them regard themselves as subjects, as self-operated vehicles that work to achieve the goals. Self-reflectiveness, along with self-reactiveness, works to conceptually solidify the interactivity between individual and environment that defines agency.

Agency may also be categorized by who exercises it. Individual agency begins and ends with one agent, collective agency reflects the superordinate goals of a group of people, and proxy agency is a less-empowered individual exercising agency by influencing another agent with more power attributed to it. This typology is important when considered in tandem with Burr and
Burr’s 1976 study because it suggests that studies which merely record the choices made by individuals in situations of consumerism or goals defined by others, such as Iyengar’s and Lepper’s (2000), make participants become objects, not subjects, of proxy agency, and their own agentic choice is not even studied in the first place.

Therefore, if researchers aim to have as complete an understanding of human choice as possible, it becomes important to distinguish between the typical research focus on the quantity of choices given to participants and the less-explored quality of choices given to participants. We believe that, in addition to the characteristics of agency described by Rainio (2010) and Bandura (2006), it is this emphasis on quality (outcome of choice, necessity of choice, desire for choice, etc.) that defines agentic choice.

It is this distinction between agentic and other forms of choice that leads us to choose a heavily qualitative study design for their participants. Apart from the quantitative aspects of the design, particularly aspects that lend themselves to between-subjects analyses of variance and variable correlation, the design is intensively focused on the free response of participants in order to get a participant-centered understanding of why, definitively, any effects observed take place. These free response sections are designed with Bandura’s dimensions of agency in mind.

Following Rainio’s studies that demonstrate lower self-efficacy in children whose subjective senses of agency were restricted, we have chosen to focus on optimism as a dependent variable that is affected by restrictive agency. Coelho et al. (2018) define optimism as “the hope that something good is going to happen in the future.” The variable is chosen for its future-oriented nature, based on the knowledge that a necessary cause of learned helplessness (a dearth
of optimism that states that nothing good will happen in the future) is a perceived inability to change a painful situation (Seligman, 1972). Although we do not hypothesize that a specific type of change in optimism will occur following exposure to the unrestricted condition, we are concerned with verifying a negative effect of the restricted condition on optimism because a difference between agentic and non-agentic choice is that the former produces goals of the individual’s own volition, and it therefore stands to reason that these goals will produce frustration and negative affect to some degree when thwarted.

In addition to the demographic variables that have been shown to influence optimism and perception of free choice/agency, Big Five personality constructs (particularly neuroticism, defined as an individual’s tendency toward negative emotions and away from positive ones) by their nature predispose individuals for varying levels of optimism (Rammstedt & John, 2007). Therefore, we find it important to administer an abbreviated version of the Big Five Inventory (John, 1990) in order to distinguish between the results of disparate, specific groups of participants who researchers have reason to believe will react differently to the same experiment.

The Big Five Inventory (John, 1990) and all derivative versions measure five personality constructs: openness, conscientiousness, extraversion, agreeableness, and neuroticism. Only neuroticism is expected to show a meaningful effect within the data, but in order for our study to be consistent with previous studies that have used the BFI-10 to measure the Big Five, we will nonetheless ask participants to take the entire BFI-10, recording and analyzing all resulting data.

The variable of openness measures the participant’s openness to new experiences, as well as general curiosity; the conscientiousness variable concerns itself with the level of responsibility
and work ethic the participant demonstrates; extraversion refers to the degree to which a participant prefers to spend time with other people, as opposed to alone; agreeableness describes a participant’s propensity toward interpersonal harmony and away from interpersonal hostility. Neuroticism, the variable of primary interest to researchers of this study, is pertinent to a participant’s propensity toward experiencing subjective distress and emotionality. Although there is no reason at this time to rule out all four other BFI constructs being correlated with the central change in optimism following exposure to a restrictive agency vignette, researchers do not predict any particular effect from their inclusion, and do so only in the interest of offering the complete BFI-10.

The research question principally being explored is whether or not subjection to restrictive agency has a significant effect on an individual’s optimism. The hypotheses generated are as follows:

Hypothesis 1: Researchers anticipate optimism difference scores to be lower in participants who are placed in the “restricted” condition than in participants who are placed in the “unrestricted” condition.

Hypothesis 2: Researchers anticipate non-White participants having lower optimism difference scores than White participants.

Hypothesis 3: Researchers anticipate participants who have previously faced financial crisis to exhibit lower optimism difference scores than participants who have never faced financial crisis.
Hypothesis 4: Researchers anticipate a negative correlation between optimism and neuroticism.
METHOD

PARTICIPANTS

One hundred and forty-seven participants between the ages of 18 and 66 ($M=25.99$, $SD=8.40$, $Md=23.00$) took part in this study between March 1 and April 3, 2020. All recruitment was done through https://webcourses.ucf.edu and social media websites. Participants were not compensated in any way and all data was contributed on a purely voluntary basis. They were recruited both from the University of Central Florida and from the broader global community. Not all of the 147 participants who took the survey answered it in its entirety; the aggregate sample size of free responders was 135, with 67 in the unrestricted category and 68 in the restricted. The sample size of responders to all multiple-choice apart from demographics items was 141. The number of responders who responded to the demographic items was 139. Of these responders, 33 were male and 106 were female. 34 were Hispanic or Latino/a, 78 were not, and 27 listed their ethnicity as “other.” With regards to race, 18 participants identified as Black, 9 as Asian or Pacific Islander, 93 as White, and 11 as bi- or multiracial. 2 did not identify their races. 6 participants identified their race as “other,” with one identifying as Guyanese, one as Latin, and one as Middle Eastern. The other three did not elaborate further. 48 participants had personally experienced a situation of poverty in the past or present, whereas 91 did not.

MATERIALS

The Optimism Scale is a 10-item questionnaire that measures optimism as a construct defined as “the hope that something good will happen in the future” (Coelho et al., 2018). All questions pertain to the participant’s optimism, sense of hope, etc., and are answered using a
Likert scale. The Likert scale allows participants to choose from 1, labeled “strongly disagree,” to 5, “strongly agree.” An example of an item is “More good than bad things happen to me.” Its Cronbach’s alpha is 0.90 in this study.

The 10-Item Big Five Inventory (BFI-10) is another 10-item questionnaire that measures the personality constructs of openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism (Rammstedt & John, 2007). As recommended by Rammstedt it dedicates two items per construct, except for agreeableness, which had a third question included. Like the Optimism Scale, the BFI-10 uses a Likert scale with five response choices ranging from “1: strongly disagree” to “5: strongly agree.” This abbreviated version was chosen to minimize attrition rates anticipated because of the demanding free-response sections of the questionnaire. In this study, the reliability of its openness section was .27, the reliability of its conscientiousness section was .50, the reliability of its extraversion section was .71, the reliability of its agreeableness section was .59, and the reliability of its neuroticism section was .67. Items on the BFI-10, preceded by the prompt of “I see myself as someone who…” include phrases such as “… has an active imagination” for openness and “… does a thorough job” for conscientiousness.

PROCEDURE

Participants were informed that they would take part in an IRB-approved study (IRB ID: STUDY00001349) about choice and optimism. After beginning the Qualtrics survey, participants completed the pretest optimism scale and BFI-10 before being randomly assigned to one of two conditions. The experimental condition consisted of participants receiving a prompt (Vignette A) which asked the participant to imagine themselves in the situation of an
impoverished single parent, and what about the situation could change by any means necessary to make it an easier situation to hypothetically experience. The control condition had participants receive a similar prompt (Vignette B), but instead of asking what one could change about the situation, the prompt asked the participant to take its relative permanence for granted and to explain what they could do to cope with it. Participants in both conditions provided free-response answers to their assigned prompt. Participants in both conditions were asked if the situation portrayed in the vignette is similar to anything they have experienced in reality, so that the answers from people for whom the vignettes are purely hypothetical and those from people for whom the vignettes portray lived experiences could be compared. The optimism scale was administered again, and the participants answered demographic questions. At this point, participants were done with the survey.
RESULTS

In the analysis phase of the study, quantitative demographic information and BFI-10 scores were correlated with both pre- and posttest optimism scores, as well as with each other. The participants’ pretest scores were subtracted from their posttest scores to calculate a difference score for each participant. A negative difference score indicates a drop in optimism, and a positive difference score indicates an increase. A difference score of 0 indicates no change in optimism.

Power analyses were run prior to data analyses. The power analyses were run in order to confirm the necessary sample size to secure power at the .05 level of significance. The power analysis run on the t-test on agency restriction and optimism difference score assumed an effect size of .5 and found that a minimum of 176 individuals were necessary to secure statistical power. The same was true of the t-test on previous experience of financial crisis and optimism difference score.

The power analysis run on the ANOVA on 6 race categories and optimism difference score assumed an effect size of .25 and found that a minimum of 324 individuals were necessary to secure statistical power. The power analysis run on the bivariate correlation between neuroticism score and optimism difference score assumed an effect size of .30 and found that a minimum of 111 individuals were necessary to secure statistical power.
HYPOTHESIS 1: AGENCY RESTRICTION AND OPTIMISM CHANGE

Sixty-seven individuals were in the unrestricted category and 68 were in the restricted category, for a total of 135 individuals in this analysis. An independent-samples t-test was run on the data. The mean optimism difference score for the unrestricted participants was $M=0.36$ ($SD=1.81$), and the mean optimism difference score for the restricted participants was $M=0.34$ ($SD=2.48$). Although the mean was marginally higher in the unrestricted condition than in the unrestricted condition, the effect was not significant ($t(133)=-1.43$, $p=.15$). An effect on the optimism’s difference score that was attributable to which condition of agency restriction participants were in could not be meaningfully inferred.

HYPOTHESIS 2: RACE AND OPTIMISM CHANGE

The sample of African-American/Black people in this analysis is smaller than the total number of African-American or Black participants in this study because one participant did not fully answer the optimism scales, and a difference score could not be computed for that participant. Three White individuals were also excluded for the same reason, with the number of White individuals who responded fully to the optimism scales being 90. A one-way ANOVA was conducted on the data, with race as the independent variable and optimism difference score as the dependent variable. No significant main effect was found on the optimism difference score that was attributable to race ($F(5, 129)=1.94$, $p=.09$). Out of all racial demographics in this study, the 17 participants who self-identified as African-American or Black were the only ones to have a negative mean difference score ($M=-.59$, $SD=2.00$).
HYPOTHESIS 3: PRIOR EXPERIENCE AND OPTIMISM CHANGE

Forty-six participants were in the “prior experience” category and 89 were in the “no prior experience” category for a total of 135 participants. Four participants, two from the “prior experience” category and two from the “no prior experience” category had to be excluded because they did not fully respond to the pretest and posttest optimism scales. An independent-samples t-test was conducted on the data, with prior experience of financial crisis as the independent variable and optimism difference score as the dependent variable. No significant effect was found on the optimism difference score that was attributable to prior experience of financial crisis ($t(132)=-1.38, p=.17$). Trends show that participants with prior financial crisis experience had lower mean optimism difference scores ($M=-.02, SD=2.05$) than participants with no prior experience ($M=.54, SD=2.22$).

HYPOTHESIS 4: NEUROTICISM AND OPTIMISM SCORES

142 individuals responded fully to the BFI-10, with no partial responders. 141 individuals responded to the pretest optimism scale and 135 individuals responded to the posttest optimism scale. To test this hypothesis, bivariate correlations were run on both pretest and posttest optimism scores. The bivariate correlation run on the pretest optimism scores with the neuroticism scores from the BFI-10 found a moderately negative correlation ($r=-.56, p<.01$), with a similar correlation for neuroticism and posttest optimism ($r=-.50, p<.01$). Moreover, pretest optimism was positively correlated with conscientiousness ($r=.50, p<.01$), agreeableness ($r=.43, p<.01$), and extraversion ($r=.46, p<.01$). Posttest optimism was similarly correlated with conscientiousness ($r=.48, p<.01$), agreeableness ($r=.42, p<.01$), and extraversion ($r=.41, p<.01$).
No significant correlation was found between openness and pretest optimism \((r=.10, p=.26)\) or between openness and posttest optimism \((r=.10, p=.26)\).

**EXPLORATORY ANALYSES**

A content analysis was also performed on the free-response answers given by the participants. Once again, there were 67 participants in the unrestricted category and 68 participants in the restricted, for a total of 135 participants. However, not all of the participants who responded to the free-response prompt fully responded to the pre- and posttest optimism scales, and not every participant who fully responded to the scales gave a response to the free-response. Therefore, although the sample size for the content analysis and the sample size for the t-test are coincidentally identical, the specific individuals who contributed data for each analysis are not entirely the same, although the vast majority of participants contributed data for both analyses and are therefore present in both analyses.

Forty-six participants mentioned seeking help from publicly owned services, and 31 mentioned seeking help from privately owned services. Sixty-one mentioned seeking help from family and/or friends, 74 mentioned spending more time working or finding more gainful employment, 31 mentioned budgeting funds differently, 12 mentioned continuing education, 23 mentioned focusing on their own mental health using self-care tactics, seven mentioned using religious faith to ameliorate the situation, eight mentioned selling personal possessions, 10 mentioned alterations to the family structure, and 15 mentioned minimizing the harm to mental health of the children in the family. Fifteen participants explicitly mentioned feeling optimistic, and six explicitly mentioned feeling pessimistic.
Eight participants contributed responses with notable components that could not be labeled as belonging to the previous categories. Two participants’ responses were vague statements that they would, for instance, “do whatever was in [their] power” to alleviate the situation with no further statements. Three participants who had faced poverty themselves added how the strategies worked for them in practice, with two listing things that have worked for them. Out of the participants discussing their real-life strategies, one listed strategies that she felt did not work – “It's hard to change the situation when rent continues to go up, and expenses go up but not your pay,” she wrote. This participant was also one of two that mentioned taking out loans. One participant included moving to a cheaper residence not involving extended family as part of their response. One participant explicitly mentioned potentially violating laws if they were experiencing sufficient destitution.
DISCUSSION

INTERPRETATION OF FINDINGS

The researchers’ first hypothesis that restricted agency conditions would have a negative effect on optimism was not supported by the research findings. However, this result may be at least partially attributable to lack of statistical power, and statistically significant results may be found in future replications by securing a larger sample size.

The second hypothesis that non-White participants would have an intrinsic optimism reduction by virtue of their demographics was also not supported, but considering the near-significant p-value attributed to this hypothesis’s corresponding ANOVA, a marginally higher sample size would most likely increase the statistical power enough to produce significant results. Although not significant, the trend of African-American or Black people being marginally less optimistic after being asked to change or cope with a situation of simulated adversity could speak to the effects of real-world structures of racial inequities if replicated in a study with a higher sample size.

The third hypothesis that prior experience would cause a lower difference score was not supported. As with previous hypotheses, this could change assuming more statistical power. Because current data trends toward the hypothesis, i.e., participants with prior experience with financial crisis were found to have lower optimism difference scores than those with no prior experience, the low sample size is likely the source of the lack of statistical significance.
The fourth and final hypothesis, which predicted a negative correlation between optimism and neuroticism, was supported via the observed correlation of neuroticism with both pretest and posttest optimism scores. This finding allows researchers to attribute a portion of the participants’ propensities away from or toward optimism to their personalities. Regardless, it lacks the ability to establish a direction of causation due to its correlative nature.

The findings from the content analysis are more revelatory and lay the foundation for more research questions to guide future research on this topic. When devising hypotheses, researchers were anticipating main effects from the data that would then be qualitatively interpreted via a content analysis of the participants’ personal responses to the prompts given. However, the content analysis contributed useful, completely original information that was not contingent on its relationship to optimism. Although this study, guided by a research question of how agency restriction affects subjective well-being, concerned itself with optimism first and foremost because of its narrow definition and operationalizability, a wealth of relevant post hoc variables worth studying in their own sense.

In particular, the responses that the participants gave were rich with information on how they used personal choice to devise strategies to solve a simulated problem of poverty. Although this data was originally collected with the intent of identifying what courses of action made individuals feel the most optimistic, it had an unplanned contribution to the data in terms of getting testimony from participants of previous or current financial insecurity on what strategies have or have not personally worked for them. This finding acts as a springboard for further research questions for future studies. With the caveat of a small sample size kept in mind, the
findings point to perceptions of racial and socioeconomic inequities in outcomes following financial crisis.

For example, researchers in different social science disciplines could study outcomes of impoverished populations, both in terms of their individuals and in terms of the populations collectively. In particular, systematic analyses of populations who report dissatisfaction with public services could be useful to researchers involved with public policy and public health. Populations who report dissatisfaction with private-sector community aids could be studied by non-government organizations.

LIMITATIONS AND POTENTIAL IMPROVEMENTS

The statistical power of the study was compromised by its low sample size. Future researchers are advised to dedicate more time to recruitment, as well as using a wider variety of recruitment methods, in order to maximize sample size. These methods could include physical recruitment, wherein researchers directly ask pedestrians to participate in the study in person.

Furthermore, some failures of parsimony are present in the design of this study. For example, the “restricted” group was intended to have less options than the “unrestricted” group, but because they were told to “cope with” instead of “change” the situation, and because many people cope via taking action, the “restricted” group discussed a broader range of topics in practice. Additionally, a broader dependent variable than optimism should have been used, to reflect the qualitative, post hoc nature of the free-response section of the study.

The parametric design also betrays its theoretical background to the extent that although it intends to study Holzkamp’s “restrictive agency” construct, it does so partially in terms of
what Holzkamp decries as “variable psychology,” the act of discarding or disregarding data that cannot be viewed through the paradigm of inferential statistics (2013, p.60). This problematizes participant agency by having data collection be oriented toward the quantitative aspects of the data to be interpreted, stunting the participants’ abilities to contribute data subjectively and originally. This is to say that although parametric, inferential statistics are useful for objectivizing and operationalizing research questions such that they are generalizable to broad populations, they inherently produce situations of restrictive agency by taking away the participants’ own intentionality and having them only contribute data that the researchers are requesting.

Even the free response, which was included with the intention of allowing participants to generate and contribute any data they personally chose to, is not without its problems. The fact that it was included to *simulate* an agentic situation, not reflect a real one, limits its ability to accurately depict agentic choice. This limitation, in addition to the low sample size, may explain the lack of statistically significant data: participants who were asked to cope with the situation did not write about many topics, other than mental health and religion, that the participants who were asked to change the situation did not themselves write about. This production of restrictive agency problematized the validity of the design alongside the two prompt wordings that the participants interpreted similarly.

Including space for free response to be interpreted via content analysis was done with the intention of ameliorating some of the restriction to agency and allowing researchers to understand factors too subjective to attempt to control in advance, such as the participants’ own
personal reasoning for making certain decisions. However, this could be improved in two ways for the intents of a study with agency restriction as an independent variable. First, for further research on the effects of restrictive and unrestrictive agency on subjective well-being, future studies could include one experimental free response condition and one control non-free response condition in exchange for controlling for the agentic content of the choice itself.

Controlling for more severe agency restriction as a follow-up to this study and any future replications could deepen understanding on its effect on optimism and similar constructs. Second, to maximize the number of retroactively found variables and factors, a grounded theory approach could be used. Grounded theory is a pragmatically oriented procedure for data analysis which is only guided by research questions, but no initial hypotheses, and by a literature review accomplished only after all the data has been analyzed and interpreted (Charmaz, 2006). A grounded theory approach would augment the subject-centered nature of studies such as this one, and thus facilitate the participants’ contributions of post hoc variables. By having all variables be qualitative and generated post hoc, the parsimony of the quantitative variables derived therefrom would be guaranteed. This could be accomplished by keeping research questions broad (e.g., “How is agency restriction interpreted by participants?” instead of “How does agency restriction affect optimism?”), having most or all questions be free-response, and encouraging participants to be candid about their opinions and appraisals in addition to their preferred courses of action. This final step’s viability is spoken to in particular by the 24 participants in this study who, unprovoked by any prompt, included their own opinions and appraisals about what would be on their mind during the hypothetical situations depicted in the survey, as well as the subjectively positive or negative attributes of those opinions and appraisals.

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The generalizability of the data in general is limited by the characteristics of its sample. It was overwhelmingly female, White, young, and generally populated by individuals who had not previously faced economic crises comparable to the ones portrayed in the vignettes. It may be necessary in future studies to exclude overrepresented demographics. Additionally, participants were not asked if they were themselves parents. This leaves the study with an extraneous factor in the data that was not accounted for.

CONCLUDING REMARKS

The distinction of agentic versus nonagentic choice is one that has been discussed extensively, both within and outside the field of psychology, but it is not a topic that has been extensively operationalized and subsumed into empirical research. This dearth of scientific research is partially because of the challenge of controlling for agentic choice when the act of placing subjects in a laboratory setting itself produces restrictive agency. Thus, in attempting to produce data relevant to this topic, researchers needed a dependent variable that was easy to isolate.

The research question that served as the central guide for this study (i.e., “How does the restriction of agency affect optimism?”) was structured to be easily given operational definitions that were intelligible within the discipline of psychology. In isolating such a specific dependent variable as optimism, researchers attempted to contribute to an underdeveloped academic conversation about the relationship between agency and well-being more broadly by addressing an unexplored, specific variable. This specific-to-general method may have been wrongheaded. Researchers believe that it is true that establishing causality is important to producing rigorous,
falsifiable, replicable data on a nebulously understood topic such as agency; however, in gathering data regarding well-being, anecdotes and testimony are crucial. Instead of trying methodologies that compromise between the traditional and the unorthodox, asking participants about optimism directly and subjectively may produce better-quality data in the future than attempting to calculate their optimism psychometrically.
APPENDICES
APPENDIX A: BIG FIVE INVENTORY-10
I see myself as someone who…

… is reserved

… is generally trusting

… tends to be lazy

… is relaxed, handles stress well

… has few artistic interests

… is outgoing, sociable

… tends to find fault with others

… does a thorough job

… gets nervous easily

… has an active imagination
APPENDIX B: OPTIMISM SCALE
01. I believe that I will accomplish the main goals of my life.

02. When I think about the future, I am positive.

03. More good than bad things happen to me.

04. I think everything will go wrong.

05. I see each challenge as an opportunity for success.

06. I find positive aspects even when things go wrong.

07. I see the positive side of things.

08. I am confident to overcome problems.

09. I am confident about the future.
APPENDIX C: FREE-RESPONSE VIGNETTES
Vignette A: Imagine that you are the single parent of two children between the ages of 5-8. You are struggling to pay for your family's necessities including your own, are living paycheck to paycheck, and frequently experience food insecurity. In NO MORE THAN 500 CHARACTERS, explain what could change about the situation, whether by your own means or by someone else's, without considering feasibility, that would make it less unpleasant to experience.

I have personally experienced a situation at least somewhat similar to the one in the prompt. (Yes/No)

Vignette B: Imagine that you are the single parent of two children between the ages of 5-8. You are struggling to pay for your family's necessities including your own, are living paycheck to paycheck, and frequently experience food insecurity. In NO MORE THAN 500 CHARACTERS, explain what you could do to cope with the experience.

I have personally experienced a situation at least somewhat similar to the one in the prompt. (Yes/No)
APPENDIX D: DEMOGRAPHIC QUESTIONS
What is your gender?

Male/Female

What is your age? ___

What is your ethnicity?

Hispanic/Latino(a)

Non-Hispanic/Latino(a)

Other

What is your race?

African-American/Black

Asian-Pacific Islander

Caucasian/White

Native American

Bi-racial or Multi-racial

Other ___

Prefer not to answer
APPENDIX F: POST HOC CONTENT ANALYSIS VARIABLES
COMMUNITY ASSISTANCE – PUBLIC SECTOR

These include welfare, food stamps, and other forms of government assistance. If an individual mentions “community assistance,” “community organization,” or other similar terms without making specific reference to any specific services, the response is interpreted as including both public and private entities as candidates for assistance.

COMMUNITY ASSISTANCE – PRIVATE SECTOR

These include food banks, churches, and other charities. If an individual mentions “community assistance,” “community organization,” or other similar terms without making specific reference to any specific services, the response is interpreted as including both public and private entities as candidates for assistance.

ASSISTANCE FROM FAMILY AND FRIENDS

Responses that mentioned getting material or emotional support from friends and family were placed in the “Assistance from Family and Friends” category.

SEEKING NEW OR ADDITIONAL WORK

Responses that mentioned leaving the family’s current job for a new one, seeking one or more jobs to work alongside the current one, or asking for additional hours were placed in the category of “Seeking New or Additional Work.”
BUDGETING

Responses that mentioned reworking how extant funds are spent and/or saved were placed in the “Budgeting” category.

EDUCATION

Responses that mentioned continuing the participant’s own education for any reason were placed in the “Education” category.

SELLING POSSESSIONS

The participants that referenced profiting from selling personal possessions outside of the context of starting their own business were placed in the category of “Selling Possessions.”

DECLARATIONS OF OPTIMISM

Responses that made direct reference to a sense of self-efficacy, good luck, low probability of a bad outcome, or high probability of a desirable outcome were assigned the category of “Declarations of Optimism.”

DECLARATIONS OF PESSIMISM

Responses that made direct reference to a sense of self-inefficacy, bad luck, high probability of a bad outcome, or low probability of a desirable outcome were assigned the category of “Declarations of Pessimism.”
MENTAL HEALTH-ORIENTED SELF-CARE

Responses that included courses of action that were solely in the interest of mood regulation were assigned the category of “Mental Health-Oriented Self-Care.”

RELIGION

Responses that made direct reference to prayer, faith in God, or religiosity as courses of action were assigned the category of “Religion.” Merely mentioning places of worship instrumentally, such as in the interest of taking donations, was not sufficient to be placed in the “Religion” category.

CHANGES TO FAMILY STRUCTURE

Responses that described changing the individuals present in the family unit, such as moving in with extended family, involving ex-partners in the extant family for child support, or giving the children up for adoption were assigned the category of “Changes to Family Structure.”

OTHER

Any other notable themes that were present in the responses, but too infrequent to justify placement in its own variable, were added to the “Other” category.
EXEMPTION DETERMINATION

February 28, 2020

Dear Grace White:

On 2/28/2020, the IRB determined the following submission to be human subjects research that is exempt from regulation:

<table>
<thead>
<tr>
<th>Type of Review:</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title:</td>
<td>Restrictive Agency and Optimism</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Grace White</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00001349</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
</tr>
</tbody>
</table>

Documents Reviewed:
- Big Five Inventory-10.docx, Category: Survey / Questionnaire;
- Brea_IRB White 1349 How free is free2.pdf, Category: Recruitment Materials;
- Demographic Items, Category: Survey / Questionnaire;
- freeresponse_breakfree.docx, Category: Survey / Questionnaire;
- Optimism Scale.docx, Category: Survey / Questionnaire;

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made, and there are questions about whether these changes affect the exempt status of the human research, please submit a modification request to the IRB. Guidance on submitting Modifications and Administrative Check-in are detailed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system. When you have completed your research, please submit a Study Closure request so that IRB records will be accurate.
If you have any questions, please contact the UCF IRB at 407-823-2901 or irb@ucf.edu. Please include your project title and IRB number in all correspondence with this office.

Sincerely,

Kamille Birkbeck
Designated Reviewer
REFERENCES


Rammstedt, B., & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of research in Personality, 41*(1), 203-212.

