

UNIVERSITY OF CENTRAL OKLAHOMA

Edmond, Oklahoma

College of Education and Professional Studies

Consumers' Choices: Life History Theory and Conspicuous Consumption

A THESIS

SUBMITTED TO ADVISING FACULTY

In partial fulfillment of requirement for a

MASTER'S THESIS

By

Sharayah Ann Russo

Edmond, Oklahoma

May, 26 2013

Life history theory is an evolutionary theory that attempts to explain a person's risk-taking behaviors and mating strategies unconsciously (Griskevicius, Tybur, Delton, & Robertson, 2011). There are two different types of strategies, a fast Life History strategy, which is characterized by risk-taking behaviors, (e.g. gambling, early reproduction, multiple sexual partners, unwise resource spending, etc.) and a slow Life History strategy, which is characterized by waiting until a later age to reproduce, saving resources for future use, and more selective mating. Conspicuous consumption is an evolutionary concept that examines purchases that enhance the social status of a person to aid in mating (Amaldoss & Jain, 2005; Heffetz, 2007; Griskevicius, Cialadini, & Kenrick, 2006). Combining these two theories, participants were asked to bid on items that were either rated highly conspicuous or as low-conspicuous items after being primed with a mortality, safety and neutral article.

Consumers' Choices: Life History Theory and Conspicuous Consumption

“The basis on which good reputations in any highly organized industrial community ultimately rests is pecuniary strength; and the means of showing pecuniary strength, and so of gaining or retaining a good name, are leisure and a conspicuous consumption of goods” (Velben, 1899, p. 59). This quote by Thorstein Veblen perfectly captures our capitalistic world today. As people in our consumer nation sink further and further into debt, we have to ask ourselves what propels this purchasing mentality? Veblen coined the phrase “conspicuous consumption” in his book looking at the evolutionary agenda behind purchasing expensive items that work as well or worse than less expensive items or buying expensive items to use simply for leisure (Veblen, 2006). Why do people buy expensive sport cars that have pricey repairs, horrific gas mileage and high maintenance? A Porsche Carrera GT is not just another car; there is some other value attached to it, or people would not pay over \$440,000 to get one. Veblen’s ideas, verified by research, have shown that conspicuous consumption is done with the unconscious intent to attract a mate by seemingly elevating social standing with pricey possessions (Veblen, 2006; Sundie, Kenrick, Griskevicius, Tybur, Vohs, & Beal, 2011; Heffetz, 2007; Ratikainen, & Kokko, 2010).

Conspicuous consumption can be seen to the gold thrones in Egypt to Gucci purses in today’s world. However, as our economy continues to decline in the last decade, people are saving money in every area possible. Although this may seem to have a negative effect on conspicuous consumption items, it actually has the opposite effect. As people try to save money by purchasing the off-brand from everything from laundry soap to Rolexes, they only enforce the social status of the real item. The divide between the type of people who can afford the genuine product and the people who can only afford the generic broadens and only increases the social

desirability (Raustiala & Sprigman, 2012). Many people who buy generic products are unsatisfied with the fake. The knockoff item is a “gateway drug” of sorts to desiring the real product. In addition, many of the name-brand vendors know these principles and often create generic items to increase their sales of their pricier name-brand counterparts. Research has shown that as long as the fake can be identified from the real deal, the knockoff items only aid in the social status and, therefore, sales of the name-brand product (Raustiala & Sprigman, 2012).

Although evolutionary psychology has many facets, a main component of study is the emphasis of survival of a genetic line by reproduction. The easiest way to ensure that one’s blood line continues is to pass on as many genes in the most effective way possible. Conspicuous consumption is a nonverbal signal to potential mates of attractiveness and/or resources and therefore, usefulness as a mate.

Conspicuous consumption serves a purpose for those with a short-term mating strategy. An example in the animal kingdom would be that although the colorful feathers of a peacock are beautiful to look at, they are also easier for predators to see. The cumbersome tail feathers also impede escaping any quick attacker. The bright colors might attract mates more quickly, but will also contribute to a short life (Geary, 2005; Sundie et al., 2011). Humans and animals that adopt this approach are not typically committed to the mother and children after conception. Although this tactic is effective in producing many offspring in a short amount of time, it does not normally allow for the father to contribute to the offspring’s survival, which places the burden of protecting and providing resources utterly on the mother. One specific theory that looks at this idea is the Life History theory. Life History theory is a relatively new evolutionary theory that looks to explain behavior through either fast or slow Life History strategies. People with fast (e.g. short-term) Life History strategies will perform more risk-taking behaviors and are more

likely to spend resources more quickly and frivolously (i.e. conspicuous item purchases, gambling, mating younger and with more partners, etc.) Individuals with slow (e.g. long-term) Life History strategies will plan for their future and spend their resources more conscientiously.

Much of the current research has focused on mating strategies by looking at how people evaluate when is the best time to mate and with whom one should mate (Griskevicius, Delton, Robertson & Tybur, 2011; Reichard & Barelli, 2008; Maklakov, Dremer & Arnqvist, 2007). The development of these mating strategies depends on the personal early life experiences that have shaped people's view of the world and established their probability to survive in the future (Griskevicius et al., 2011; Gruebler & Naef-Daenzer, 2010; Kruger, 2008; Maklakov, Kremer & Arnqvist 2007; Reichard & Barelli 2008; Rudolfsen, 2008).

Fast mating strategies involve individuals who have had an insecure or unsafe environment, poor or nonexistent relationship with one or both of the parents and limited resources. Their future is uncertain so they must focus on the present. People with this strategy tend to mate at a younger age with less discretion with whom they mate. Short-term or fast strategist tend to focus on superficial characteristic (i.e. attractiveness, social status, availability, etc.) of their sexual partner rather than other more tactical characteristics (i.e. intelligence, available resources, loyalty, etc.) They also tend to mate with more people in an effort to spread their genetic make-up as much as possible because in an uncertain environment it is likely that some of the offspring will not survive (Griskevicius, Cialdini, Kenrick & Douglas, 2006; Griskevicius, Delton, Robertson & Tybur, 2011; Ellis, Figueredo, Brumback, & Schlomer, 2009; Gruebler & Naef-Daenze, 2010). They also spend little of their already-limited resources on their children, which decreases the probability of high-quality development. In contrast, those who practice slow mating strategies often wait longer to engage in sexual activity. They are more

selective with who they mate with and tend to have less children. Instead of looking for phenotype pleasing traits such as attractiveness, the long-term maters seek a partner who will nurture and care for the children for years after the birth, and invest the majority of their resources in the offspring. In its simplest form, the short-term mating strategists focuses on quantity over quality; whereas, the long-term mating strategist focuses on quality over quantity (Rudolfson, Müller, Urbach & Wedekind, 2008; Kruger & Fisher, 2008; Griskevicius, Cialdini, & Kenrick, 2006; Ellis, Figueredo, Brumbach, & Schlomer, 2009).

There have also been findings that support that some traits associated with Life History theory may be able to be passed to the next generation genetically. Many studies have shown the links between personality and genetics, but there has not been extensive research on specifically Life History theory predictors. Religiosity, attitudes towards society and long-term relationships, impulsivity, social deviance and sensation seeking are a few examples of Life History theory characteristics that have been hypothesized to be passed on genetically (Figueredo, Vasquez, Brumbach, & Schneider, 2004).

Two specific factors that many Life History scales look at is promiscuity and anti-social behavior. In a study conducted in the late 1980's, researchers found significant positive correlations between these two pivotal Life History factors and certain personality traits. In further support of Life History theory, these components had negative loadings with positive relationships with parents, which is consistent with Life History Theory (Rowe & Rodgers, 1989). These researchers did several other studies looking at other significant links between Life History theory characteristics and genetic personality traits and found many significant links. However, at that time there was limited knowledge of the factors that would correlate between personality and Life History theory.

Although this is compelling evidence that genetics to play some part in the development of a Life History strategy, just like with personality, finding the distinction between characteristics that are shaped by the environmental and by the parents' contribution of genes is very difficult. In an effort to help distinguish between these two factors, researchers conducted studies looking at twins, parents and siblings. This study looked at specific behaviors that were significantly related to personality factors. After determining which behavior could predict Life History strategies, researchers grouped these components together and labeled it the factor K-factor, which are what all Life History scales now seek to measure (Figueredo, et al., 2004). This study was pivotal Life History theory's full development and enabled characteristics that determine short and fast strategies to be consistently measured.

Although early development and genetics plays a key role in what type of strategy a person will adopt, Life History strategies are thought to be flexible depending on the needs of the environment. Therefore, Life History theory often looks at three social aspects together in a person's present life that predicts whether he will be put into a slow or fast mating category. Attachment style, self-monitoring and sociosexuality have been shown to be correlated measures that help to predict a person's Life History strategy (Kruger & Fisher, 2008).

Attachment styles look to see if the individuals when raised had a stable healthy relationship with their parents, particularly the father, or if people developed a negative attachment style that included avoidances or anxious styles. Research has shown that women who have healthy attachment styles with their fathers tend to engage in sex with fewer partners and practice safer sex, which is characteristic of a slow Life History strategy (Kruger & Fisher, 2008).

Second, self-monitoring deals with how a person presents themselves in social situations. People who practice high self-monitoring censor how they present themselves to their peer group in an effort to present a sociably likeable person that is accepted. In contrast, people who are low in self-monitoring do not censor words or emotions when dealing with other people, which often hinders or impedes relationships. This is an important concept to Life History theory because it predicts who these people are attracted to and who are attracted to them (Kruger & Fisher, 2008; Griskevicius, Delton, Robertson, & Tybur, 2011).

Finally, sociosexuality involves what women look for in their mate for their children. Women with restrictive sociosexuality seek men who will be a caretaker and offer lasting security. However, women unrestricted in sociosexuality will choose their mate based on looks and social presentation and do not take into account if the mate will stay after the children are born. They are more likely to have more sexual partners and produce more children on average than those with slow strategies (Kruger & Fisher, 2008; Gruebler & Naef-Daenzer, 2010; Griskevicius, Cialdini, & Kenrick, 2006). Because there are typically multiple children over a broad span of time, any donation of resources and time given will limit probable contributions of assets for other future offspring. To invest in current offspring is to promote their survival, but hinder future children (Ratikainen & Kokko, 2010).

All these elements are taken into account when looking at how someone mates throughout his life. This is an automatic process that is mostly performed unconsciously based on past experiences and an innate desire (i.e. an instinctual need) to pass on genetic material. Unconscious or automatic behavior is considered any actions that are not intentional and are done without exertion, awareness or direction (Mather & Romo, 2009). In other words, the individual is not at all or only fully aware of their actions. Conscious behavior in contrast is very

controlled and deliberate. Automatic behavior has many benefits. First, it is more efficient because it categorizes items together allowing more cognitive channels to be free. In addition, because it compresses information into groups, it allows the person to efficiently process larger groups of complex information. Finally, automatic thinking allows the person to reference to past success unconsciously to guide present behavior, or to reference failures in the past and avoid repeating the same mistake (Mather & Romo, 2009).

Another important aspect of automatic behavior in regards to Life History theory is that some behavior is in between conscious and unconscious behavior. Mather (2011) and other researchers have suggested the idea of the "in-between processes" between the lines of conscious and unconscious with goal-driven automaticity. It requires the individual to begin the sequence of events, but the person is unaware of the process. Therefore, the individual does not monitor the process consciously, leaving the running of it to the unconscious mind. One example of this is typing. Although typing is a learned behavior if someone thinks about typing they will make more errors. The action requires the individual to sit down at a keyboard, but then the process is largely left up to the unconscious controls because it is now an autonomous habit with little to no thought or attention. The flexibility of automatic behavior is a very important principle in regards to Life History theory. Although the environment "teaches" the person what is adaptive and necessary that individual must start the pursuit of the mate even though the underlying guiding process to them is largely unknown.

As the world of psychology begins to look at unconscious behavior as having many elements of flexibility in reference to behavior, it is meaning the, "capacity for ready adaptation to various purposes or conditions" (Hassin, Bargh, & Zimmerman, 2009). A wonderful example of this can be seen with many species of animals. Animals are driven by instinctual behavior,

especially when it concerns mating and the future survival of their species. They have no social constraints or conscious reasoning to shift their strategies. Their automatic processes unconsciously adapt to the environment around them that will result in the best potential offspring for that given time (Maklakov, Kremer, & Arnqvist, 2007). Research has shown that apes have flexible mating patterns that help them develop better cognition and socialization, and that birds will adjust resources given to offspring based on likelihood of survival, food availability, danger of staying with offspring and chances of being able to mate again (Reichard & Barelli, 2008; Rudolfsen, Müller, Urbach, & Wedekind, 2008).

Another example, crabs determine their mate by the size of their claws, but researchers have discovered that females are more likely to choose mates with larger claws when the weather has been worse and food is more scarce because crabs with large claws can burrow further into the ground allowing for protection and more available food sources; however, crabs with larger claws tend to live shorter lives based on their size and speed. In contrast, when the weather is not overly harsh and food is readily available, female crabs tend to mate with male crabs with smaller claws hoping for a longer-term mate to help provide for the brood. (Grüebler, & Naef-Daenzer, 2010; Ellis, Figueredo, Brumbach, & Schlomer, 2009). This is a perfect example of slow (small claw) and fast (large claw) mating strategies based on uncertain or stable environments.

But how does this reflect back on humans? Can they unconsciously alter their behavior to seek a better mate based on the principles of Life History theory? Although having a fast strategy can be beneficial at times, research has shown that the benefits are normally found in the animal kingdom. In today's culture, the fear of loss is not normally connected with life, but with money and social status. So, are people who do have fast Life History strategies able to change

to a more productive slow strategy? One study conducted showed that when primed with death, those participants with fast Life History strategies simply sped up their strategy, and those with a slow strategy slowed down their strategy even more. The fast strategist became more reckless, and the slow strategist became more conservative (Griskevicius et al., 2011). These findings do not give researchers much hope of helping those with unproductive strategies shift to new ones.

In contention to that research however, studies involved with enigmatic priming in the past ten years suggests that there is hope for several reasons. Hassin et al. (2009) researched the power of non-conscious goal pursuit- effectively passing on genes if we are looking at Life History theory-with priming to see if it had an element of flexibility. They presented primes unknowingly to their participants by asking them to complete a word puzzle embedded with priming words. Half of the group received seven words dealing with achievement and success. The researchers then administered the Wisconsin Card Sorting Test (WCST), which has shown strong indications of validity and reliability with measuring cognitive flexibility to a changing environment. The individuals who were primed with the “success” words were more adaptive in their strategies and more willing to stop using a method that no longer worked.

Another similar experiment conducted to support that not all automatic behavior is inflexible was with the Iowa Gambling task (Hassin et al., 2009). The participants were primed with a word puzzle using either success or neutral words, and then they were given money to “gamble”. Participants were asked to pick from one of four decks. Each card would either give them money or take money away from them. To the participants, the decks had the random potential to either win or lose money. However, the experimenters knew that two of the decks were “good decks.” These decks had relatively small consistent gains, but one of the two good decks had frequent small amounts of loss, while the other had infrequent but large amounts of

loss. The other two decks or the “bad decks” have substantially large gains, but they are infrequent, and like the other decks, one of the bad desks has frequent large losses and the other frequent small losses. The participants picked from one deck 250 times to establish a “rule of thumb” concerning which type of deck was most desirable to make money and what desks should be avoided. Then without the participants knowledge the “decks' rules” changed and the decks that were once profitable were switched with penalizing decks and vice versa. The point of the experiment was to see if the individuals that were primed with success words would also change their strategy to match the environment for a more profitable game quicker than those participants who had been primed with the neutral words.

The results were consistent with their hypothesis; the participants primed with the success words were quicker to learn the "new rules" of the cards. Those who were primed with the success driven words were “better at disengaging from the structure of an old environment and were better at uncovering the structure of a new environment” (Hassin et al., 2009). The authors concluded that no one measurement they conducted alone supports the idea of a flexible automatic mind, but that the combined implications show that people's automatic correction to adapt to a new environment is very possible (Hassin et al., 2009).

This is powerful evidence when looking at Life History theory. No one consciously says to himself, “I have limited resources and a short survival period so I should mate earlier in life and as many times as I can to ensure I pass on my genetic coding,” but people behave in that manner. Research after research has shown that those with secure environments and long-term resources wait to mate and are more invested in the limited offspring they do have. They also spend their resources more timidly so they can plan for the future. However, when strategies of mating and taking care of offspring no longer work, individuals don't always change their choice

patterns in the direction that will most promote survival of themselves and their genes (Griskevicius et al., 2011; Gruebler & Naef-Daenzer, 2010; Kruger, 2008; Maklakov, Kremer & Arnqvist, 2007). Those unable to grasp this concept are often not able to pass on their genetic material as effectively. In contention from previous thought, new research is showing that automatic thinking such as choosing whom to mate with might need to stop being so stagnated, and become more of a dynamic process based on what is needed in the present environment.

The implications for this research are far reaching. By understanding unconscious strategies of humans, research can delve into the most effective process for multiple areas of living (i.e. relationships, parenting, finances, crimes, etc.) Many individuals that come from insecure homes with minimal financial and emotional support often engage in risky behaviors without really knowing why they engage in it. They put themselves at risk for medical and economic injuries that might jeopardize not only themselves, but also their children.

Fast Life History strategies negatively influence the family structure in numerous ways. Once the child has arrived, the father is often absent and the mother is left to raise the baby alone, and as discussed the parents are young with no to little resources. This typically causes the young mother to be pushed further down the economic stratification, which will result in not providing a secure upbringing for the child or children. These conditions result in the cycle being repeated with the next generation.

In addition, the justice system would also obtain benefits. Juvenile delinquency has continued to be a problem over the last several decades. The police force, psychologist and sociologist attribute most of the delinquency to minimum supervision, lack of involvement from the parents and not enough resources within their given social status. If women mated later in life with men who are more apt to father their children this result of a “latch key kid” might be

limited, and if mothers were not so overwhelmed with trying to provide for their children, they might be able to personally invest in the child and make them feel wanted, which has shown strong links to making crime rates drop (Levitt & Dubner, 2005).

In recent research looking at brand consumption with political affiliation, researchers can see additional support for the relationship of consumption and Life History theory. Research shows that between liberals and conservatives, conservatives preferred to purchase established name-brand products and were less likely to purchase a newly launched product (Khan, Kanishka, & Singh, 2013). Conservative beliefs have been linked to slower strategies. Although brand consumption is considering necessity products like cleaning products, food and household common goods, it can still be an accurate mirror of conspicuous items. Individuals with slow strategies tend not to take risks by trying untested products, which has also been found by those with conservative views. Research has also shown that those with conservative views tend to remain loyal customers to name-brand products.

Although this may seem like base conspicuous consumption, the items are more functional opposed to being connected with social status. Because of this, it seems to match with a slow-strategy individual who would want a proven product with stability and would be less likely to stray. This product loyalty could be traced back to their parents who more than likely would come from middle class or above. A family of that means would be able to purchase name-brand products that were necessity, but would be less likely according to Life History theory to purchase in contrast conspicuous items (Khan, Kanishka, & Singh, 2013).

In addition to household provisions, research has shown that Life History theory has been connected with calorie consumption. Individuals with a faster Life History strategy have been shown to eat high calorie food with more fat (Laran & Salerno, 2013). There is an incredible

amount of research that demonstrates that individuals in low social economic status (SES) environments tend to be overweight because of the quality of food they eat. Research has shown that individuals in low SES environments eat foods that are very high in calories and have higher ratios of fat content. Although there are many reasons that are hypothesized for this, one is that when compared to the amount of calories a person can obtain with a dollar purchasing processed food versus healthy food is very different. Processed food offers nearly three times the amount of calories versus foods such as fresh fruits and vegetables, but cost many times more than half as much as health foods (The Institute for Natural Healing, 2011). Individuals with fast strategies would more than likely sacrifice their long-term health for immediate calorie gratification.

As shown, this subject has importance to many different sections of societal and personal issues. Although Life history theory is unique in the fact that it is dynamic in nature changing based on what is needed in a given environment, it is still an automatic process the population performs without direct thought or consciousness. As further research is pursued the lines between automatic processes and controlled processes blur. The unconscious mind once thought to be rudimentary and dumb is now being discovered as a powerful entity of direction and control for our behavior. Automaticity is a subject that needs further exploration to fully realize the full influence it has on day-to-day life.

When looking at the eclectic research on the subject of conspicuous consumption in regards to Life History theory, the connections between the two theories are clear. However, no research has looked at the variety of levels of conspicuous consumption in relation to changing environmental stressors. This experiment seeks to expand on current research by looking at conspicuous consumption in conjunction with Life History theory and priming. The researchers' hypothesis is that when primed with the loss of the ultimate resource, life, participants will adopt

a faster strategy, which will result in more conspicuous consumption than those influenced with safety or neutral primes.

Study 1: Rating of Conspicuous Items

In order to ensure that the results on of the main study were properly supported, a pilot test was conducted to determine a hierarchical order of the items that would be used. Although all items presented to the participants were hypothesized to be considered high social status items, in order to verify how socially desirable the items were, all items were put in the pilot study for consideration.

Method

Participants. Fifty-six participants were recruited from undergraduate general psychology classes; however, only forty-seven responses were kept due to incomplete information or quality of answering. Participants were offered one credit to complete the survey in partial requirement for their class. There were 28 females (60%) and the ages ranged from 18-50 years of age. Although the majority of the students were white, there was at least one representative of African American, Hispanic, Native American and “other” classification for ethnicity.

Materials. The materials necessary for this experiment were Internet-accessible computers with any screen size that allows easy visibility to participants. The participants also will need access to a monitor, a keyboard and mouse pad. The programs necessary to run this experiment will be Qualtrics to give the surveys (although this step could be done in multiple ways).

Design. The design of the experiment was averaging the ratings for each item and putting them in hierarchal order from most conspicuous items to least conspicuous items to be used in the main study. Also, independent *t*-tests were used to test the means of responses concerning questions that aid in predicting Life History strategies.

Procedure. The participants signed up for the experiment using the University of Central Oklahoma's SONA system and then were taken to an offsite survey site called Qualtrics. They were given the informed consent; and if they agreed, participants were given basic demographic questions. After the demographic questions, they were asked a small set of sub-questions to help predict their Life History strategy to determine our variability of responses in the main study.

They were then asked to rate each items on a scale from one to ten to demonstrate how socially desirable each of the items were by clicking a number on a likert scale from one to ten. Each item the participants were asked to rate was displayed with two pictures, one with light tones and one with dark. If the product could have been gender specific, for example Gucci clothing, a picture of a "female" product and a "male" product was shown. Each picture had the name of the product. Only specific name brand products were used when available (e.g., Maserati was used instead of asking the participants to rate how socially desirable sports cars are). This was done to help ensure the ratings would be more standardized by giving the participants a very specific product and therefore, minimizing personal preferences with general products.

The participants had no time limits, but were required to provide an answer for every question. However, if they did not know what the product was or did not want to answer the question, the neutral option was available on every rating question. After the participants were finished rating the items, they were taken to the end of the survey.

Results

The results showed that eight items were rated highly conspicuous by having a social status rating over 8.0. In addition, eight items were rated as being low conspicuous items since their ratings were below 7.0.

Item	Mean	Standard Deviation
Advanced Education	8.936	1.6339
Large house	8.702	1.8872
Large flat screen television	8.681	2.0120
iPhone 5	8.617	2.1625
Maserati	8.574	2.4024
World travelling	8.383	1.9511
Vacation home	8.234	2.5127
Underground pool	8.234	2.0131
Prosche	8.043	2.5277
Play Station 4/X-Box360	7.979	2.2983
Apple tablet	7.809	2.2997
Extensive wardrobe	7.787	2.2644
4.0-5.0 carat diamonds	7.511	2.7731
Hot tub	7.489	1.8867
Camper Nicholson's Yachts	7.340	2.6644
North Face clothing	7.213	2.3213
Multiple vehicles	7.170	2.2967
Starbucks products	7.064	2.5994
Rolex watch	7.021	2.5409
Gucci Clothing	6.702	2.7260
Personal trainer	6.468	2.7255
Patron Products	6.404	2.5594
Buckle jeans	6.340	2.3891
Country club membership	6.128	2.5420
Pure bred pets	5.723	2.3563
Temperature controlled wine cabinet	5.553	2.6359

Table 1. Average social desirability ratings and standard deviations.

An analysis of the demographic questions that correlate with predicting someone's Life History strategy showed that there was a strong correlation between each of the three questions,

$r(46) = .876, p = .000, r(46) = .749, p = .000$ and $r(46) = .871, p = .000$. The t -tests also show an overall slow strategy for the majority of the participants, $t(46) = 9.441, p = .000, t(46) = 12.188, p = .000$ and $t(46) = 8.233, p = .000$

Discussion

The highest conspicuous items were paired to the highest-scoring lowest-rated conspicuous items in the main study to ensure the greatest amount of variability with each bidding round. Although these items were not randomized in study 3, because items with the same rating were used in each bidding round (e.g., each bidding round had a high-rated conspicuous item that was rated from 10 to 8.70) in order to minimize any confounding effects.

In addition, the first pilot study found that the overall group of participants had characteristics indicative of a slower Life History strategy by looking at demographic questions only. Although more diverse strategies would have been better, the participants in the main study were also identified as displaying qualities that are associated with slow Life History strategies, which would at least keep the ratings consistent.

Study 2: Verify Neutral Articles

Because no already published neutral articles that were applicable to this study were found, two neutral articles were created. In order to ensure that the neutral articles were actually priming the individual to the natural or neutral attitude, the articles were tested for neutrality.

Method

Participants. Thirty-three participants were recruited from undergraduate general psychology classes; however, only twenty-nine responses were kept due to incomplete information or quality of answering. Participants were offered one credit to complete the survey in partial requirement for their class. There were 19 females (66%) and the ages ranged from 18-

50 years of age. Although the majority of the students were white, there was at least one representative of African American, Hispanic, Native American and “other” classification for ethnicity.

Materials. The materials necessary for this experiment were Internet-accessible computers with any screen size that allows easy visibility to participants. The participants also will need access to a monitor, a keyboard and mouse pad. The programs necessary to run this experiment will be Qualtrics to give the surveys (although this step could be done in multiple ways).

Design. The design was an independent *t*-test between the neutral mean (independent variable) and the average rating of the participants (dependent variable).

Procedure. The participants were taken to an offsite survey site called Qualtrics. They were given the informed consent, and, if they agreed, participants were given basic demographic questions. They were then asked to read a short article and rate how positive or negative the article made them feel with a sliding bar scale. They were then asked to rate how certain they were of their attitude. They read a total of two articles. Participants were under no time restraints for this pilot test. After they had finished rating the second article, they were taken to the end of the survey.

One article discussed the domestication of dogs throughout history including a brief description of the cultural uses for dogs throughout time. The second article discussed the history of ice cream including how ancient cultures made products that help shape our modern view of ice cream. Both articles were around 250 words with two to three paragraphs.

Results

The second pilot study supported that the neutral primes used in the main study were neutral. The mean rating for one of the neutral articles was 63.04 with an average attitude certainty rating of 75.96; the other article was rated 61.08 with an average attitude certainty rating of 76.42. All scales were based 0-100 (Very Negative to Very Positive) with fifty being Neutral. There was no significant difference between the neutral rating and the average rating of the participant for either article.

Discussion

Because there was no significant difference between the neutral mean and the average rating of the participants, this pilot study supports that the articles that were used as neutral primes were actually neutral. This helps to validate the main study's results by ensuring that the material used were accurately measuring what they were designed to measure.

Study 3:

Method

Participants. Thirty-three participants were recruited from undergraduate general psychology classes; however, only twenty-eight responses were kept due to incomplete information or quality of answering. Participants were offered one credit to complete the survey in partial requirement for their class. There were 22 females (76%) and the ages ranged from 18-50 years of age. Although the majority of the students were white, there was at least one representative of African American, Hispanic, Native American and "other" classification for ethnicity.

Materials. The materials necessary for this experiment will be Internet-accessible computers with any screen size that allows easy visibility to participants. The participants also will need access to a monitor, a keyboard and mouse pad. The programs necessary to run this

experiment will be Qualtrics to give the surveys (although this step could be done in multiple ways).

There were several scales used, one of which was the Interpersonal Expectancy Scale (IES). The IES is a 24 question scale that measures overall attitudes of perception of society whether they are generally giving, friendly and supportive, or manipulative, greedy or negative. This perception of society could influence how a participant may view many things, and therefore it was necessary to take this perception into account.

Another scale that was used was Motivation to Avoid Negative Interpersonal Biases (MANIB) is a twelve item scales. This scale measures an individual's desire to avoid being biased against something or someone. This was another important personal perception to consider in conjunction with the main results.

There were two Life History scales that were used in this study, the High-K and the MINI-K. The MINI-K scale is part of the Arizona Life History Battery (ALHB) that contains 199 items and measures Life History strategies by using a *K-Factor*. Although the MINI-K is suggested not to be used by itself because of a limited inter-item consistency and test-retest reliability, research has shown that using the MINI-K in conjunction with the rest of the ALHB or a another Life History scale as long as there is a significant correlation with the ALHB. Because of a concern for testing fatigue and the need to give two different types of scales at the beginning and the end of the survey, the High-K scale was used instead of giving the entire ALHB. According to research the High-K is correlated with the ALHB and may be used in conjunction with the MINI-K (Giosan, 2006). The High-K scale has a high reliability coefficient and may be used by itself (Giosan, 2006).

The High-K scale is a 26-item scale that measures a Life History strategy by looking at four strategy indicators, health and attractiveness, upward mobility, social capital and extended family and finally, consideration of risk. By looking at these key factors, this scale is able to determine if someone has a fast or slow strategy.

Significantly correlated with both the ALHB and High-K scales, the MINI-K is a twenty-question scale that ties all the factors of ALHB scale together. It has the highest loading on the ALHB scale and is commonly used in conjunction with another Life History scale to increase reliability. The MINI-K looks at insight, planning and control, mother/father relationship quality, family social contact and support, friends' social contact and support, experiences in close relationships, general altruism and religiosity (Figueredo, Vasquez, Brumbach, & Schneider, 2004; Olderbak & Figueredo, 2010, 2012).

Design. The design of the quantitative experiment will be a one-way within subjects analyzed with a series of ANOVAs. The independent variable was the type of prime with three levels: the mortality prime, the safety prime and the neutral prime group. The dependent variable was the mean dollar amount participants decided to bid on the conspicuous items and chose to save.

Procedure. The participants were taken to an offsite survey site called Qualtrics. They were given the informed consent, and, if they agreed, participants were given basic demographic questions. They were then given two surveys, the Interpersonal Expectancy Scale (IES) and the Motivation to Avoid Negative Interpersonal Biases (MANIB). After answering those questions they were given the High-K scale to establish their Life History Strategy. All participants received all three primes; however, they were randomly assigned to either receive the mortality prime or safety prime first.

After reading the article, they were asked to bid on six items; three of the items were considered high-conspicuous items and the other three items were considered low-conspicuous items, which were determined by a pilot test. The participants also have the option to save in each of the bidding rounds. The participants had an unlimited amount of time to bid on the items although the amount of time was analyzed as a covariate for the analysis. Participants were given \$100,000 to spend per bidding round and were instructed to either spend and/or save the complete amount of money. The participants were not allowed to continue on to the next part of the survey until their total amount spent or saved equal \$100,000.

The participants were then given a neutral article and asked to bid on six items again. Then they were given the safety or the mortality article depending on which article they were first randomly assigned. They were asked to bid again and then they were given another neutral article and asked to take the MINI-K scale (a sub-scale of the High-K scale), which also measures a person's Life History strategy. The participants were then taken to the end of the survey.

Results

The results showed a significant difference between one of the three priming conditions for conspicuous consumption. There was a significant result between the mean dollar amount spent on conspicuous items between the mortality prime and neutral prime, $t(26) = -2.822, p = .009$. It should be noted that the data was approaching significance between the safety and neutral prime, $t(26) = -2.040, p = .051$.

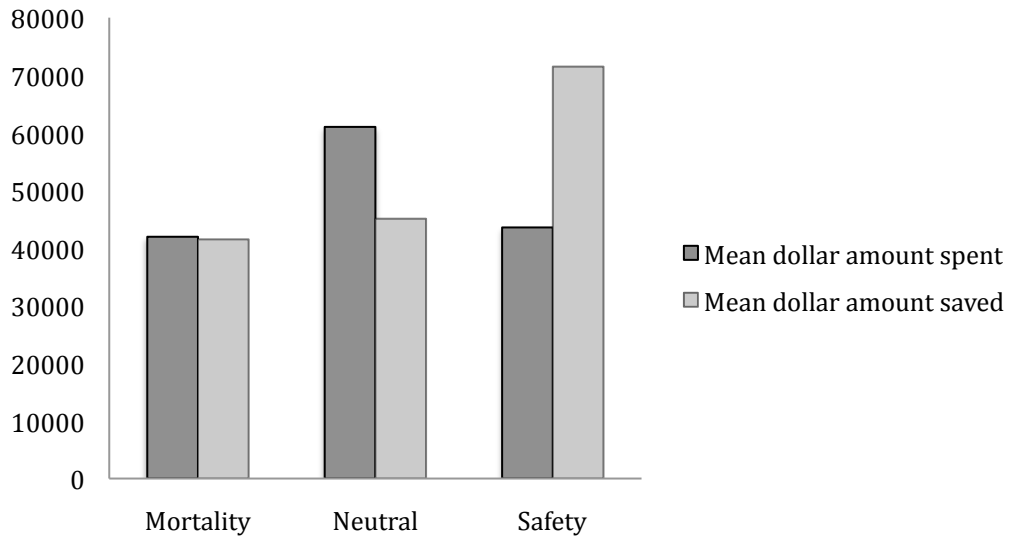


Figure 1. Mean dollar amount spent and saved in all three priming conditions

Several correlations were run to determine the relationships between the different aspects of the survey. Several significant correlations were found. There was a positive correlation between the High-K and MINI-K scale, $r(26) = .524, p = .004$. There was also a positive correlation found between the MINI-K scale and the age of first sexual encounter reported by participants, $r(26) = .419, p = .027$. There was a negative correlation between the number of sexual partners reported by the participants and age of first sexual encounter, $r(26) = -.521, p = .004$. In addition, there was a positive correlation between number of partners and number of kids, $r(26) = .415, p = .028$.

The data also shows a negative correlation between the amount participants saved and the number of conspicuous items the participants bid on when they were primed with the mortality article and the safety article, $r(26) = -.476, p = .010$. There was a positive correlation between the mean amount of money saved when primed with the mortality primed and the mean amount of money saved in the safety prime, $r(26) = .475, p = .011$.

The IES scale had a median of 83.00, a standard deviation of 11.86 and a minimum and maximum value of 61 – 115. The MANIB scale had a medium of 5.65 and a standard deviation of .891 and a minimum and maximum value of 3.83 - 7.0. The High-K scale had a medium of 90.61, a standard deviation of 10.21 and minimum and maximum range of 64 – 110. The MINI-K scale had a medium of 99.0, a standard deviation of 11.92 and minimum and maximum range of 68-118.

Discussion

The results did confirm the hypothesis that participants would spend significantly different amounts of money depending on which prime they were presented and what Life History strategy they had. The results from the High-K scale showed that the participants were significantly slow strategist meaning that when primed with their mortality, they would spend less, which they did. The participants' average spending when primed with mortality was \$41,966.07 compared to the neutral condition where the average spending was \$61,035.71. When primed with safety the participants did spend less than when they were primed with mortality ($M= \$43,584.57$). As predicted by the theory, when individuals with a slow Life History strategy feel safe, they are more likely to spend excess resources.

The negative correlation between number of partners and age of first sexual encounter shows that the younger the age of respondent normally resulted in a higher number of sexual partners. This supports Life History theory that says that individuals with faster Life History strategies often have higher number of partners and start having sexual encounters at a younger age. Also, there was a positive correlation between number of children and number of sexual partners, which also supports Life History theory. Individuals with fast strategies have sexual relationships with more people and normally more children than those with slower strategies.

This is theorized to be because individuals with faster strategies seek to have as many children as possible with less selective criteria for mates.

There was a positive correlation between the two different Life History scales given, the High-K and MINI-K, which was expected due to the fact that they both measure Life History strategies. There was a significant correlation found between the MINI-K and the respondents first reported age of sexual encounter. This correlation was positive meaning that the older the age of first sexual encounter, the higher they rated on the MINI-K scale, which normally suggests a slower strategy.

There was also a negative correlation between the total number of conspicuous items and the amount of money saved when the participants were primed with the mortality and safety article. This supports Life History theory because when individuals with a slow Life History strategy, which the majority of our participants were, are threatened with resource loss such as the mortality prime, they will tend to hoard their available resources. Although the amounts saved were not significant by themselves, the data show that participants were less likely to bid on conspicuous items and more likely to save when threatened with mortality. In contrast, saving also had significant negative correlation with number of conspicuous items the participants bid on, which could be a results of the participants who did have a faster strategy; however, although there is quite a bit of research looking at how slow and fast strategies respond to resource loss, there is not considerable research concerning how slow and fast strategies respond to safety conditions. Further research on the subject should be done to verify what influenced that significant correlation.

The positive correlation between the mean dollar amounts saved when the participants were primed with the mortality prime and the mean dollar amount saved when primed with

safety. This seems to support that there may be a connection between how individuals respond to security and uncertainty when spending their resources especially for individuals with slow Life History strategies.

The significance of these findings is far reaching. Not only do they confirm the budding theory of Life History theory, but they also show the flexibility of a Life History strategy. In addition, it combines the principles of conspicuous consumption and therefore broadens our understanding of purchasing habits of individuals. With further testing, not only could we help those in financial strain due to unconscious instinctual spending habits, researchers could also aid them in other more significant areas of their life, such as their children and their health.

Limitations

The most noteworthy limitation of this study is the fact that all of study's participants were currently enrolled in college, which means that all the participants already demonstrated a slow Life History strategy by pursuing advanced education. Because of this, the study's variability for getting a broad range of Life History strategies was limited. However, because mean amounts spent still had significant differences, it can be concluded that there was a significant amount of variability within Life History strategies.

For future research, a broader sample should be obtained to make sure that the participants have a wide-ranging variety of Life History Strategies on both ends of the spectrum, slow and fast. Although this did limit the variability of the study, because the majority of the participants were slow strategist for the pilot studies and the main study, the results greatly correlated, which helped this research. The primes should also be evaluated with further testing to see if they are accurately priming the participants. Finally, a complimentary between-subjects study should be conducted to see if the results would correlate.

Future Research

Future directions for research will include looking at Life History theory in different areas of behavior including mental health, specifically in the area of Post Traumatic Stress Disorder (PTSD). The hypothesis is that when an individual has a near death experience, they are forced into a very fast Life History strategy, which causes them to engage in risky life-threatening behavior. Often people do not understand why rape victim sometimes engage in promiscuous relationships or individual who have been faced with death may engage in extremely risky behavior. This seems counterintuitive unless Life History theory is taken into consideration. Future research will attempt to explore this area in the hopes of offering assistance to those who deal with PTSD.

Resources

- Amaldoss, W., & Jain, S. (2005). Conspicuous Consumption and Sophisticated Thinking. (Geary, 2005)*Management Science*, 51(10), 1449-1466.
- Coons, S. J., Alabdulmohsin S. A., Draugalis, J. R., & Hays, R. D. (1998). Reliability of an Arabic Version of the RAND-36 Health Survey and Its Equivalence to the US-English Version. Lippincott Williams & Wilkins.
- Ellis, B. J., Figueredo, A., Brumbach, B. H., & Schlomer, G. L. (2009). Fundamental dimensions of environmental risk: The impact of harsh versus unpredictable environments on the evolution and development of life history strategies. *Human Nature*, 20(2), 204-268.
- Figueredo, A.J., Vasquez, G., Brumbach, B.H., & Schneider, S. M. R. (2004). The heritability of life history strategy: the K-factor, covitality and personality. *Social Biology*, 51, 121-143.
- Geary, D. C. (2005). Evolution of life-history trade-offs in mate attractiveness and health: Comment on Weeden and Sabini (2005). *Psychological Bulletin*, 131(5), 654-657.
- Giosan, C. (2006). High-K Strategy: A Measure of the High-K Independent Criterion of Fitness. *Evolutionary Psychology*, 4, 394-405.
- Griskevicius, V., Delton, A. W., Robertson, T. E., & Tybur, J. M. (2011). Environmental contingency in life history strategies: The influence of mortality and socioeconomic status on reproductive timing. *Journal of Personality and Social Psychology*, 100(2), 241-254.
- Griskevicius, V., Cialdini, R.B., & Kenrick, D.T. (2006). Peacocks, Picasso, and parental investment: The effects of romantic motives on creativity. *Journal of Personality and Social Psychology*, Vol 91(1), Jul 2006, 63-76.
- Griskevicius, V., Tybur, J. M., Delton, A. W., & Robertson, T. E. (2011). The influence of mortality and socioeconomic status on risk and delayed rewards: A life history theory approach. *Journal Of Personality And Social Psychology*, 100(6), 1015-1026.
- Grüebler, M. U., & Naef-Daenze (Kruger & Fisher, 2008)r, B. (2010). Brood overlap and male ornamentation in the double-brooded barn swallow. *Behavioral Ecology*, 21(3), 513-519.
- Hassin, R. R., Bargh, J. A., & Zimmerman, S. (2009). Automatic and Flexible: The Case of Nonconscious Goal Pursuit. *Social Cognition*, 27(21), 20-36.

- Heffetz, Ori. (2007). Conspicuous Consumption and Expenditure Visibility: Measurement and Application. Working paper, S.C. Johnson Graduate School of Management.
- Khan, R., Misra, K., & Singh, V. (2013). Ideology and Brand Consumption. *Psychological Science*, 1-8. Retrieved from <http://pss.sagepub.com/content/early/2013/02/04/0956797612457379>
- Kruger, D. J., & Fisher, M. L. (2008). Women's life history attributes are associated with preferences in mating relationships. *Evolutionary Psychology*, 6(2), 289-302. Retrieved from EBSCOhost.
- Laran, J., & Salerno, A. (2013). Life-History Strategy, Food Choice, and Calorie Consumption. *Psychological Science*, 24(2), 167-173.
- Levitt, S. D., & Dubner, S. J. (2005). *Freakonomics: A rogue economist explores the hidden side of everything*. New York: William Morrow.
- Maklakov, A. A., Kremer, N., & Arnqvist, G. (2007). The effects of age at mating on female life-history traits in a seed beetle. *Behavioral Ecology*, 18(3), 551-555.
- Mather, R. D., (2011, August). Automaticity Intercession. LECTURED CONDUCTED FROM UNIVERSITY OF CENTRAL OKLAHOMA, EDMOND, OKLAHOMA.
- Mather, R.D., & Romo, A. (2009). *Automaticity and Cognitive Control in Social Behavior*. FountainHead Press.
- Olderbak, S. G., & Figueredo, A. J. (2010). Life history strategy as a longitudinal predictor of relationship satisfaction and dissolution. *Personality and Individual Differences*.
- Olderbak, S. G., & Figueredo, A. J. (2012). Shared Life History Strategy as a Strong Predictor of Romantic Relationship Satisfaction. *Journal of Social, Evolutionary, and Cultural Psychology*, 6(1), 111-131.
- Ratikainen, I., & Kokko, H. (2010). Differential allocation and compensation: Who deserves the silver spoon? *Behavioral Ecology*, 21(1), 195-200. doi:10.1093/beheco/arp168
- Raustiala, K., & Sprigman, C. J. (2012). *The knockoff economy: How imitation sparks innovation*. Oxford, U.K.: Oxford University Press.
- Reichard, U. H., & Barelli, C. (2008). Life history and reproductive strategies of Khao Yai Hylobates lar: Implications for social evolution in apes. *International Journal of Primatology*, 29(4), 823-844.

- Rowe, D. C., & J. L. Rodgers (1989). Behavior genetics, adolescent deviance, and "d": Contributions and issues. In G. Adams, R. Montemayor, and T. Gullotta (eds.), *Advances in Adolescent Development*, 38-70.
- Rudolfson, G., Müller, R., Urbach, D., & Wedekind, C. (2008). Predicting the mating system from phenotypic correlations between life-history and sperm quality traits in the alpine whitefish *Coregonus zugensis*. *Behavioral Ecology and Sociobiology*, 62(4), 561-567.
- Sundie, J. M., Kenrick, D. T., Griskevicius, V., Tybur, J. M., Vohs, K. D., & Beal, D. J. (2011). Peacocks, Porsches, and Thorstein Veblen: Conspicuous consumption as a sexual signaling system. *Journal of Personality and Social Psychology*, 100(4), 664-680.
- The Institute for Natural Healing (2011). The Economics of Obesity: Why Are Poor People Fat?. Retrieved March 1, 2013, from <http://instituteformaturalhealing.com/2011/04/the-economics-of-obesity-why-are-poor-people-fat/>
- Tuttle, B. (2012). Name Brand vs. Private Label: Why Shoppers Are Buying More Store Brands | TIME.com. *Business & Money: The latest news and commentary on the economy, the markets, and business*. Retrieved January 27, 2013, from <http://business.time.com/2012/11/01/brand-names-just-dont-mean-as-much-anymore/>
- (2005). New York, USA
- Veblen, T. (1899). *Theory of a Leisure Class*. Chicago, United States: Macmillan.
- Veblen, T. (2006). *Conspicuous consumption*. New York: Penguin Books. New York, USA

High-K Strategy Scale

Appendix 1.

High-K Strategy Scale

1. The activities I engage in, both at work and elsewhere, are safe (not life threatening)
2. I have good health benefits for my family and me.
3. I don't have major medical problems.
4. I am able to provide a decent quality of life for myself and my family.
5. I believe people think I am attractive.
6. I see my relatives (for example, parents, uncles/aunts, nephews/nieces, etc.) regularly.
7. My training and experience are likely to bring me opportunities for promotion and increased income in the future.
8. I live in a comfortable and secure home.
9. I live in a place where I can easily go outside and enjoy nature.
10. I am in good physical shape.
11. The neighborhood where I live is safe.
12. If I were to face a sudden threat (e.g., flood, fire), I believe I would have the ability to protect myself and my family.
13. If I wanted to, it would be easy for me to find and go on a new date.
14. If I had children and had to go away for a while, I could count on my relatives to take care of them.
15. If something bad happened to me, I'd have many friends ready to help me.
16. The people I work with are like me.

17. I live in a community to which I am well suited.
18. My friends look up to me.
19. If I had children and had to go away for a while, I could count on my friends to take care of them.
20. I would be missed by people, besides my family, if I were to die.
21. I meet with my friends regularly.
22. My second-degree relatives (nephews, cousins, uncles, nieces) are generally healthy.
23. Are you married or living with a partner?

If you are married or living with a partner answer the following:

- a. I believe people find my spouse/partner attractive.
- b. My spouse/partner has not had major medical problems.
- c. If I were out of work, I could rely on my spouse/partner's income for a while without a significant drop in my quality of life.

MINI-K Scale

Appendix 2.

MINI-K

1. I can often tell how things will turn out.
2. I try to understand how I got into a situation to figure out how to handle it.
3. I often find the bright side to a bad situation.
4. I don't give up until I solve my problems.
5. I often make plans in advance.
6. I avoid taking risks.
7. While growing up, I had a close and warm relationship with my biological mother.
8. While growing up, I had a close and warm relationship with my biological father.
9. I have a close and warm relationship with my own children.
10. I have a close and warm romantic relationship with my sexual partner.
11. I would rather have one than several sexual relationships at a time.
12. I have to be closely attached to someone before I am comfortable having sex with them.
13. I am often in social contact with my blood relatives.
14. I often get emotional support and practical help from my blood relatives.
15. I often give emotional support and practical help to my blood relatives.
16. I am often in social contact with my friends.
17. I often get emotional support and practical help from my friends.
18. I often give emotional support and practical help to my friends.
19. I am closely connected to and involved in my community.
20. I am closely connected to and involved in my religion.

Interpersonal Expectancy Scale (IES) Scale

Appendix 3.

IES Scale

Strongly Disagree- 1 2 3 4 5 6-Strongly Agree

1. Most people will live a healthy and active life.
2. Few people are capable of true compassion.
3. When I meet people, I usually expect that they will be friendly.
4. People are often insensitive to the needs of others.
5. People will usually treat others with respect.
6. People will generally help others in need.
7. People typically have good intentions toward others.
8. Most people will do whatever they can do to avoid hard work.
9. If people can mess things up, they generally will.
10. Most people will cheat to get ahead.
11. People can be trusted.
12. Most people live by the "golden rule" (treat others as you would like to be treated).
13. Most people will live the lifestyle they have always wanted.
14. People will often tell lies if they can get away with it.
15. People cannot be relied on to keep their promises.
16. Most people will strive to be fair.
17. Most people will blame others for things that go wrong.
18. People have trouble being faithful to others.
19. People are generally capable of achieving their goals.

20. I expect most people I meet to be bright, intelligent, individuals.
21. Most people will take advantage of others if they get the chance.
22. Most people will deliberately say or do things to hurt you.
23. Most people do not really care what happens to others.
24. Most people are likely to succeed in reaching their goals.

Motivation to Avoid Negative Interpersonal Bias (MANIB) Scale

Appendix 4.

MANIB Scale

-3 -2 -1 0 1 2 3

Strongly
Disagree

Strongly
Agree

1. I always try to give other people the benefit of the doubt when they've messed up.
2. Avoiding negativity toward other people is important to me.
3. I always try to seek out the good in other people.
4. I try not to be too critical of others.
5. When possible, I try to give people a second chance.
6. When I don't like a person initially, I try hard to keep an open mind about them.
7. I try hard not to treat people based on my stereotypes about them.
8. I am highly motivated to treat people fairly, no matter what I may think of them.
9. I try not to assume the worst about another person without finding out more about them.
10. Being positive in my judgments of others is important to me.
11. Treating people with kindness and respect is important to me.
12. I attempt to act in nonjudgmental ways toward other people because it is personally important to me.

Mortality Prime

Appendix 5.

Mortality Prime

Police and FBI are questioning the suspected gunman in a shooting early Friday at a crowded midnight screening of the new Batman movie, “The Dark Knight Rises,” in Aurora, Colo., that left 12 people dead and 59 others wounded — the deadliest U.S. shooting since the Fort Hood massacre in 2009. The suspect, identified by law enforcement officials as James Egan Holmes, 24, is in police custody.

Authorities started to remove the bodies from the theater on Friday afternoon. Officials wheeled a black bag on a stretcher out of the front entrance, placing it in the back of a minivan. Ten people died in the theater, while two others died from their injuries later.

Witnesses say they heard a series of explosions and up to 20 gunshots after the scene grew chaotic. About 100 witnesses were taken to a local high school to be questioned by police. James Wilburn was sitting in the second row of theater 9 after midnight when an emergency door opened and a man entered, the Denver Post reports.

The incident was the worst mass shooting in the U.S. since the Nov. 5, 2009, attack at Fort Hood, Texas. An Army psychiatrist was charged with killing 13 soldiers and civilians and wounding more than two dozen others. In Colorado, it was the deadliest since the Columbine High School massacre on April 20, 1999, when two students opened fire in the Denver suburb of Littleton, killing 12 classmates and a teacher and wounding 26 others before killing themselves. Columbine High is about 12 miles from the theater.

Neutral Prime One

Appendix 6.

Neutral Prime One

Although experts largely disagree over the details of dog domestication, it is agreed that human interaction played a significant role in shaping the subspecies. Currently it is thought domestication of our current lineage of dog occurred sometime as early as 15,000 years ago and arguably as late as 8500 years ago. Shortly after the latest domestication, dogs became ubiquitous in human populations, and spread throughout the world.

Emigrants from Siberia likely crossed the Bering Strait with dogs in their company, and some experts suggest the use of sled dogs may have been critical to the success of the waves that entered North America roughly 12,000 years ago, although the earliest archaeological evidence of dog-like canines in North America dates from about 9,000 years ago. Dogs were an important part of life for the Athabaskan population in North America, and were their only domesticated animal. Dogs also carried much of the load in the migration of the Apache and Navajo tribes 1,400 years ago. Use of dogs as pack animals in these cultures often persisted after the introduction of the horse to North America.

The current consensus among biologists and archaeologists is that the dating of first domestication is indeterminate, although more recent evidence shows isolated domestication events as early as 33,000 years ago. There is conclusive evidence the present lineage of dogs genetically diverged from their wolf ancestors at least 15,000 years ago, but some believe domestication to have occurred earlier. Evidence is accruing that there were previous domestication events, but that those lineages died out.

Safety Prime

Appendix 7.

Safety Prime

Violent crime in the United States fell for the fifth consecutive year in 2011 with murder, rape and robbery all going down. The report of all crimes reported to police nationwide showed slightly more than 1.2 million violent incidents nationwide, while property crimes hit a nine-year low. Compared with 2010, the new figures show violent crime down 3.8 percent overall. Property crime was down 0.5 percent.

Among violent incidents reported to police, murders were down about 0.7 percent, robberies dropped 4 percent, aggravated assaults declined 3.9 percent, and forcible rapes were down 2.5 percent.

Criminologists point to a variety of factors for the continuing decline in overall violence. They cite a more settled crack cocaine market, an increase in incarcerations, an aging population, data-driven policing, and changes in technology that include a big increase in surveillance cameras.

James Alan Fox, a criminologist at Northeastern University, said crime has continued to decline from a peak in the 1990s but now is decreasing at a slower rate. "I call it the limbo stick effect," Fox said. "You can only go so low. You're never going to get down to zero crime." He also noted the increase that the Justice Department reported was from an all-time low in the crime rate the previous year, suggesting crime is entering a low level where police officials hope it will stay for some time.

Neutral Prime Two

Appendix 8.

Neutral Prime Two

In the Persian Empire, people would pour grape-juice concentrate over snow, in a bowl, and eat this as a treat, especially when the weather was hot. Snow would either be saved in the cool-keeping underground chambers known as "yakhchal", or taken from snowfall that remained at the top of mountains by the summer capital — Hagmatana, Ecbatana or Hamedan of today. In 400 BC, the Persians went further and invented a special chilled food, made of rose water and vermicelli, which was served to royalty during summers. The ice was mixed with saffron, fruits, and various other flavors.

Ancient civilizations have served ice for cold foods for thousands of years. The BBC reports that a frozen mixture of milk and rice was used in China around 200 BC. The Roman Emperor Nero (37–68) had ice brought from the mountains and combined it with fruit toppings. These were some early chilled delicacies.

Arabs were perhaps the first to use milk as a major ingredient in the production of ice cream. They sweetened it with sugar rather than fruit juices, and perfected means of commercial production. As early as the 10th century, ice cream was widespread among many of the Arab world's major cities, including Baghdad, Damascus, and Cairo. It was produced from milk or cream, often with some yogurt, and was flavored with rosewater, dried fruits and nuts. It is believed that the recipe was based on older Ancient Arabian recipes, which were, it is presumed, the first and precursors to Persian faloodeh.

Informed Consent Form for Participation- Consumers' Choices

Appendix 9.

Informed Consent Form for Participation – Consumers' Choices

This is to certify that I, the undersigned, agree to participate in research as part of an authorized research program of the University of Central Oklahoma, under the supervision of Dr. Robert Mather. The purpose of this study is to examine the nature of my attitudes and feelings. I understand that I will answer a variety of questions toward this goal, including describing my feelings and opinions and providing demographic information.

If I have any questions about this study, I may contact the primary experimenter, Sharayah Russo, by phone, at (405)-834-3526, or by e-mail, at srusso1@uco.edu. If I have any questions about my rights as a research participant, I may contact the Chair of the UCO Institutional Review Board by phone, at (405) 974-5497 or by email at IRB@uco.edu.

For this study, I will complete a survey that will be presented electronically, which should take approximately 25-45 minutes. I will receive one SONA credit towards the requirement of my class within seven days of submitting the survey completed. This study can only be completed once.

I understand that there is minimal risk associated with my participation in this study. That is, I understand that I will be answering questions about items that may be personal in nature. Some of these items may make some participants slightly uncomfortable. I understand that I may refuse to answer any question at any time without penalty. However, I also understand that participants in this study may gain insight into their own psychological state by answering the

items during the study. In addition, they will be exposed to the research process by participating in the study (which is a benefit to the participants as well as the researchers in this study).

This study is voluntary – I do not have to participate if I choose not to, and I may withdraw from the study at any time without penalty. However, no incomplete survey will receive SONA credit. I understand that this study is anonymous – any information collected from me will only be used in an analysis as part of a larger group of participants. In addition, the information stored electronically will never be linked to my name. To this end, I understand that the researchers cannot refer me to anyone on the basis of my answers to the materials, but if I would like to visit with someone regarding sensitive or special concerns, I may contact the Student Counseling Center at 405-974-2215 for further assistance.

I understand that I must be 18 years of age or older to participate.

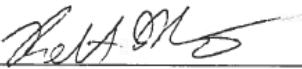
I understand that by agreeing to participate in this research, I do not waive any of my legal rights. I understand that the research investigator named above will answer any of my questions about the research procedure and my rights as a participant. I understand that the research investigator is also available and willing to answer any questions I may have about the nature, importance, or contribution of the results of this study. I hereby agree to participate in the above-described research. I understand my participation is voluntary and that I may withdraw at any time without penalty. I also understand that I can print a copy of this informed consent. By agreeing to this form, I affirm that I am at least 18 years of age and agree to all the aforementioned items. You may print this informed consent for your records before continuing.

CONSUMERS' CHOICES: LIFE HISTORY THEORY AND CONSPICUOUS
CONSUMPTION

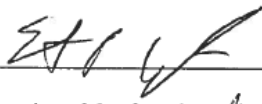
A MASTER'S THESIS

APPROVED FOR THE DEPARTMENT OF PSYCHOLOGY

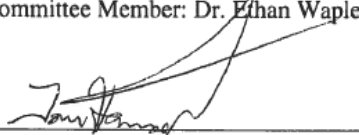
May 26, 2013



Committee Chairperson: Dr. Robert Mather



Committee Member: Dr. Ethan Waples



Committee Member: Dr. Thomas Hancock