

# **GirlFunds**

**Increasing Women's Confidence Levels for  
Better Investment Rates.**

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## Abstract

We focus on increasing women's retirement investing rates by increasing their confidence levels. Successful investing, we posit, requires 1. capital, 2. "know-how" and 3. confidence to stick with "know-how". Confidence is particularly important because decisions to enter into and stay in the stock market are made under uncertainty. We interviewed highly successful and confident women to identify traits that made them successful. Using these insights along with existing behavioral research, we created a tool aimed at correlating the confidence women have before making financial decisions. Our tool focuses on correlating women's confidence through detachment from outcome. Early feedback from the tool's usage suggest that those with higher levels of wellbeing reported lowered levels of wellbeing, while those who had lowered levels of wellbeing reported higher levels of wellbeing. We conclude that detachment from outcome is one way to correlate levels of emotional wellbeing, thus enabling women to make better financial choices for themselves.

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# Introduction

The purpose of our work is to help women improve their long-term investing rates by increasing their confidence levels. We believe that beyond education and awareness, confidence plays a significant role in long-term investing rates for women. Indeed, we believe that in order to stick with long-term investing successfully, one needs a) capital, b) “know-how” and c) an appropriate level of confidence to stick with the “know-how” regardless of what is happening in the market.

We define confidence as taking action and trusting in oneself. Our approach involves interviewing highly successful women in careers and occupations where confidence is critical to success. From these interviews we have gleaned insights on how these women have attained a healthy level of confidence. Using these insights and along with existing behavioral research we have created a tool to help women correlate their confidence levels to their knowledge on their way to making long-term investing decisions.

One of the upsides to the recession was that underfunding for retirement became a major topic. As a society Americans have begun to move from

government funded retirement plans (ex: social security), to individually funded retirement plans, such as 401K's, Roth IRA's, etc. With the volatility in the economy and job market, people in general cannot expect to work at a single institution and retire with a comfortable pension. The responsibility of retirement planning is now on the individual. Simply putting the bare minimum company match will not be enough to maintain current lifestyles during retirement. Strategies put forth by banking institutions do not differentiate for the genders. Yet the retirement picture is different for men than it is for women.

According to the Department of Labor (2008), retirement age women are at particular risk for poverty for the following reasons. First, women contribute less to retirement plans. Only 45% of the 62 million waged and salaried working women contributed to a retirement plan (United States Department of Labor [DOL], 10/2008). Second, women live 3 years longer than men retiring at the same age. A woman who retires at 65 must anticipate her savings stretching for 19 years. Third, women invest much more conservatively than men do, which can lead to a smaller nest egg. Fourth, women are more likely to work in part time jobs that don't qualify for a retirement plan. Fifth, women leave the workforce to take care of family members (DOL, 2008, p. 2). Two thirds of family caregivers are women, sometimes offering care to both aging parents and young

children at the same time (National Family Caregivers Association [NFCA], 2009) These breaks in career mean fewer contributions toward retirement and 'lower lifetime savings' (DOL, 10/2008). Lastly, women earn less than men do in the same job regardless of occupation (New York Times, 05/18/2010). Less money earned means less money to invest and save.

Female-centric money blogs and startups like LearnVest and DailyWorth have worked to increase awareness around retirement, savings and general money issues such as salary negotiations specifically for women by focusing on education. Even the financial experts spoke of education and general financial awareness as a way to counteract the pernicious circumstances that can affect women financially at retirement (EBRI Notes, 2001, p. 7). However, long-term investing rates are not going up proportionally to the amount of effort being put into awareness generation (Lusardi and Mitchell, 2008). Women who can invest and have the money to invest are not investing in droves.

The behavioral literature shows us that women are systematically underconfident even when they have the same amount of information men have (Lenney, 1977). Research by Niederle and Vesterlund (2005) show that women do not willingly enter into fields that are competitive. They subsume stereotypes about their gender when making financial

decisions (Carr & Steele, 2010). These behavioral barriers only compound the problem of saving for retirement for women. We believe that beyond education and awareness, confidence plays a significant role in long-term investing rates for women. Indeed we believe that in order to stick with long-term investing successfully, one needs a) capital, b) “know-how” and c) an appropriate level of confidence to stick with the know-how regardless of what is happening in the market.

## **Hypothesis**

Our initial hypothesis is that an appropriate level of confidence is critical to gaining and sustaining success in long-term investing. In order to be successful in long-term investing, we believe that one needs capital — some money to consistently invest, the know-how— difference between stocks, bonds, mutual funds, portfolio theory, an investment plan etc, and an appropriate level of confidence to stick with the course of choice regardless of what the stock market itself is doing on a day to day basis. One major reason why women underperform in investing is because they lack an appropriate level of confidence, and our work is going to help women gain an appropriate level of confidence. In order to increase the

confidence levels that women have, we explore confidence and find that confidence is a multifaceted variable, of which intuition is just one facet. Failure to follow one's intuition can lead to lower levels of confidence and attachment to failure is a huge roadblock to following one's intuition. Because failure to women has different connotations than men, fear of taking action and low confidence levels go hand in hand. We argue that detachment from outcome and failure is a critical step toward following your intuition, and hence why detachment from outcome is a critical step toward accurate confidence levels.

## **Process**

**Step 1:** We started out with a problem: women who have money and “know how” invest in the stock market less than they should, according to economic studies. In existing literature regarding women and finance, we found that women are less confident than they ought to be about their ability to make investing decisions, given what they know about finance.

**Step 2:** We wanted to know how women could calibrate their confidence so they can trust themselves, their understanding and their knowledge, and act with conviction in uncertain situations (like investing in stocks). In

order to do so, we turned to field-based research in answering questions about confidence. We interviewed highly successful professional women in various fields where confidence is critical to career success. From the interviews we learned that intuition goes hand in hand with confidence. Furthermore, existing literature supports our findings about intuition being an essential ingredient when making decisions in uncertain situations. We also learned that detachment is one of the existing techniques used to separate emotions from self. Detachment allows a person to follow his or her intuition with conviction when making decisions under uncertainty.

**Step 3:** After extracting insights from the interviews and literature, we created an online detachment tool. The tool helps women create an appropriate level of confidence and follow their intuition during decision-making.

In this paper, we survey existing literature regarding women and finance, confidence and intuition. We want to highlight the role confidence plays in successful retirement plans and to demonstrate how intuition can be used as a means to boost confidence, thus in turn improve performance in long-term investing. We provide analysis on our interviews, describe

our tool, and give users' feedback on tool's efficiency in creating emotional detachment.

## **Interviews**

We interviewed nine highly successful professional women in various fields of work where confidence is critical to their success. We purposefully left out interviewing women who exhibited low levels of confidence, and chose to rely on substantial research that exists on why women are underconfident. The women we interviewed ranged in ages from late 20's to 50's. All women hold highly coveted positions in firms and various organizations. Many are managers in high profile companies. Several of the interviewees work in the field of finance but the majority of them do not have extensive experience with investing; only some of the women mentioned that they contribute maximum amounts to the 401k. Majority of the interviewees do not consider themselves to be active investors. The interviews lasted from thirty minutes to an hour, and sometimes went longer than an hour. Due to the confidentiality of the interviews, we cannot reveal the names of the interviewees or the firms they work for. Several of the interviewees own their own business and

some of their professional titles include: CEO, CTO, Vice President, Dean, Professor, Small Business Owner, and Director. A sample of the questions we asked can be found in the **Appendix 1**.

We were interested in learning about the traits that made them successful and confident in their life and career choices. From the interviews, we extracted many important insights about what makes them confident in their field of work and in their lives; specifically, we asked them how they made decisions, how they overcame barriers and problems, what made them different from men in their work environment, how they have attained their set goals, and other insights that allowed them to become successful in their careers as well as in their personal life. We found 15 major key insights (please refer to **Appendix 2** for 15 key insights). After analyzing the interviews, we decided to focus on two major insights: intuition and emotional detachment. Every interviewee mentioned the importance of following intuition when making decisions. Furthermore, several interviewees used a detachment technique (i.e. emotionally separating themselves from the issues outcomes) in order to act and trust in themselves. We believe that confidence and intuition work hand in hand, and detachment can be a powerful technique to calibrate self-confidence and improve intuitive decision-making.

# Literature Review

## Women and Finance

There is very strong evidence from a variety of sources that women underperform men in long term investing. Lusardi and Mitchell (2008) found that women not only undersave for retirement, but that they are more vulnerable to old-age poverty due to their longer longevity. Indeed security at retirement is illusive for women in general because of the many barriers that they face (Joo & Pauwels, 2002). We start by examining some of the current social and systemic issues that contribute to this problem. Then we take a detour and look at the behavior barriers that women face which can contribute to financial vulnerability at retirement.

### **General barriers:**

#### **1. Lack of knowledge and Planning**

In order to grow one's capital and to keep up with inflation and other costs attached to living in a world economy, one must invest in the stock market. The stock market has produced a 10% return on average. 'Even during the worst 25-year period you would have earned a rate of return

of almost 8 percent — a quite generous return and one that was larger than the long-run average return from relatively safe bonds. This is why stocks are a wholly appropriate medium for investing in long-term retirement funds.’ (Malkiel, 2007, p. 88) The basics of entering into the stock market are capital, knowhow and planning. However, older women in the US are financially illiterate and the majority of women have taken no steps towards planning for retirement. Since planning and financial knowledge are interrelated, lack of planning is one significant factor in poor retirement savings decisions (Lusardi and Mitchell, 2008). Lusardi & Mitchell (2008) contend that in the last decade, the efforts of government agencies and employers to counteract lack of knowledge and planning with education and retirement planning products has had mixed effects on savings rate. Clearly, something is missing here. We believe a part of the missing factor is confidence.

## **2. The Wage Gap**

The lack of parity in pay that women experience has been around since the Equal Pay Act (Institute of Women's Policy Research, 03/2011). This wage gap shows up in practically all professions. For every occupation, the wage The U.S. Bureau of the Census 2010 report unequivocally shows that the wage gap persists -- women earned 77.4% of what men earned in 2010 compared to 77.0% in 2009. At this rate, it will take another 45

years for men and women to reach wage parity -- 2056 (IWPR, 2011).

The wage gap is of particular importance because money earned is a prerequisite to capital required for consistent retirement investing. Less money earned means less money to invest. See the comparison of male to female wages by profession in **Appendix 3**.

### **3. Social Reasons**

Even the wage gap is misleading. It doesn't account for the prime earning years that women sit out of the workforce for reasons such as child bearing, child rearing and family care. Over time, women who have had children exchange flexibility in working hours for lower pay and lower prospects (Meyer, 1990). Not only does this career interruption affect the wages they can earn when they re-enter the workforce, it also increases the importance of investment performance as adequate preparation for retirement.

### **4. Widowhood**

Beyond knowhow, capital, and social reasons, there are duration of life concerns that affect women over men. Since women live longer than men, it is important to consider the consequences of widowhood on retirement savings. Women in financially stable marriages before or after retirement are at risk for poverty during widowhood (Weir, Willis, & Sevak, 2002).

A substantial part of pension accrual and retirement savings occurs in the years just preceding retirement, so early widowhood prevents future growth in resources, as well. Social Security, which is so important in alleviating widow poverty for women widowed after 65, and for protecting dependent children and their widowed mothers, is of relatively little help for women widowed in their 50s. Few receive benefits for dependent children, and they must wait several years for retirement benefits. (Weir et al., 2002)

The consequences of facing widowhood at a young age are dire, and ways to mitigate loss are far and few between if women don't hedge against this possibility throughout their working lives.

**Behavioral barriers:**

Beyond educational drawbacks, economic policy, social norms and gender disparity that has been a holdover from the past, researchers have shown that there are clear behavioral differences between men and women around finance and investing. For years now, psychologists have shown that in certain fields such as finance men are overconfident and women are under confident. They have also shown that women are risk averse while men are risk prone. These behavioral traits compound

existing handicaps that women have in preparing for financially solvent retirements.

### **1. Stereotype threat inhibits decision making.**

Setting up an emergency fund, buying shares in a company, buying a mutual fund are actions that require decision making. Often very little thought is given to the context in which a decision is made and yet it can have an impact on the decision itself. Situation sensitive factors such as emotions can shape decision making (Lerner & Keltner, 2000).

Carr and Steele (2010) have found:

Gender differences in decision making are not simply the product of chronic cognitive representations, or innate factors'. Rather, people under threat assess risk and loss particularly negatively, which only increases loss aversion and risk-aversion behaviors. Therefore negative, gender based stereotypes affect decisions made about 'financial investments (e.g., whether to invest in a risky but lucrative fund). (Carr&Steele, 2010)

### **2. Aversion to Competition Reduces Women's willingness to enter**

## **competitive fields.**

Because finance has been historically considered to be highly competitive and dominated by men and investing has long been considered the forte of men, it could be construed that women simply do not perform as well as men do at fields such as finance. Research by Niederle and Vesterlund (2009) shows that in highly competitive environments, absent of discrimination, preferences for work, fields or hours worked, there are no gender differences in performance. However, twice as many men as women choose to enter such environments. They find that “while men are more optimistic about their relative performance, differences in beliefs only explain a small share of the gap in tournament entry” (Niederle & Vesterlund, 2009).

The finance world is structured with winners and losers. Financial News reports, Talking pundits on TV all accompany their reports with visual cues of competition. Thumbs up for winners; Thumbs down for losers, etc. With that kind of message, and with women self-selecting out of competition, it's no wonder that there are far fewer female investors.

### **3. Confidence is Critical in finance**

In addition to know-how, planning for retirement, and earning the capital to actually invest, women also need an appropriate level of confidence to

stick with the plan regardless of what's happening in the market, the media or what their friends are telling them. Also, the investing environment is a volatile one. "Predictability is low; feedback is noisy" (Barber & Odean, 2001). Feedback is often motivated by a desire to exploit people's fears and hopes. Confidence in one's stock choices and investment strategies is constantly under test. Women who enter and stay in the stock market outperform men because men "are simply more likely to act (i.e., trade) despite their inferior ability" (Barber & Odean, 2001).

Being overconfident leads to trading more and being under confident leads to loss aversion and unwillingness to enter into investing. Therefore an appropriate level of confidence is necessary to enter into and stick with long term investing.

## **Confidence**

Confidence is a general concept, and therefore, it's difficult to find a single, succinct, or clear definition in psychology or economics literature. Intuitively, every person understands that confidence is immensely important for performing well and self-confidence is related to self-esteem and self-efficacy. Merriam-Webster dictionary defines confidence

as: (a) feeling or consciousness of one's powers or of reliance on one's circumstances, and (b) faith or belief that one will act in a right, proper, or effective way. For the purpose of this paper, we define self-confidence in terms of trusting yourself in your abilities and taking action.

In literature, the meaning of confidence depends on the context and under the condition it is used in. For instance, in social psychology, self-confidence is viewed as communication predisposition, talkativeness, and extraversion. It is also defined as calmness and assertiveness during social interactions (Manning & Ray, 1993, p. 180). In terms of personal motivation, confidence is related to self-efficacy and having a positive view of oneself and one's actions. According to Benabou and Tirole (2002), "self-confidence is widely regarded as a valuable individual asset and 'believing in oneself' as a key to personal success (p. 876). We believe self-confidence is essential in taking charge and performing well in long-term investing. In addition, we think confidence and its influence over a person is ubiquitous in disciplines where people take action or make decisions.

### **Performance and Taking Action:**

Extensive research in the field shows: self-confidence or a person's psychological state can directly affect performance. Some examples of

this correlation can be found in the fields where emotions influence performance, for example in athletics. According to some studies in athletic performance, self-confidence “has been shown to be significantly correlated with skillful sport performance” (Feltz, 1988, p. 278).

Moreover, “affective self-evaluation, goal setting, and physiological states (e.g., mood or fitness) may exert a direct influence on sport performance” (p. 290).

Performance and being active relates to the motivation theory as well as to how people perceive their own competence. Motivation theory tries to explain what motivates individuals. According to Benabou and Tirole (2002), the first premise of motivation theory is that “people have imperfect knowledge of their own abilities” (usually costs and payoffs of their actions). The second premise is that “ability and effort interact in determining performance; in most instances they are complements, so that a higher self-confidence enhances the motivation to act” (p. 873).

Perceived competence is critical in person’s behavior, performance and persistence (Feltz, 1988, p. 284). Self-confidence is a form of evaluation of person’s competence in a certain field of study. Cognitive competence relates to academic performance. Social competence relates to popularity with one’s peers. And physical competence “reflects perceived ability at sports and outdoor games” (p. 284). Belief in control over one’s thoughts

and self-confidence influences thought patterns and behavior (p. 284–290).

A confident person sees herself and the future optimistically, which allows her to act without hesitation or doubt. Self-perceived confidence enhances motivation and taking action toward one's goals despite "the setback and temptations that periodically test" one's willpower (Benabou & Tirole, 2002, p. 877–878). Shelley Taylor and Jonathan Brown's (1988) extensive research in the area suggest that "overly positive self-evaluation, exaggerated perception of mastery, and unrealistic optimism are characteristic of normal individuals," and these "illusions [also] appear to promote productivity and creative work" (as cited in Compte & Postelwaite, 2004, p. 1537). Confidence in self-performance allows a person to be optimistic in taking action toward his or her goals.

On the contrary, people with low morale or who expect to fail in particular endeavors, effectively fail. According to Salancik (1977) individuals with low self-esteem fail more readily (as cited in Benabou & Tirole, 2002, p. 873). Pessimism and negative emotions correlate with perceived low self-confidence, and people with low self-confidence take less or even no action toward their set goals. Furthermore, an emotional state can affect performance in various ways. For example, there is

prevalent evidence that stress impairs performance (Compte & Postlewaite, 2004, p. 1537). Negative emotions, self-doubt, and pessimism erode morale and enthusiasm in under taking ambitious endeavors.

There is also another extreme—overconfidence. A prevalent body of research had shown that people tend to be overoptimistic about how they see themselves (p. 1537). This can be good because it allows one to take action. Nonetheless, if people are always over optimistic or overconfident about themselves or the decisions they make, this can cause problems. For instance, when a person is on the verge of an important decision, by being overly optimistic and overconfident, he can inadvertently neglect evidence that opposes his view. An investor who takes a “wrong turn” can have some costly repercussions from a monetary point of view.

### **Calibrating confidence:**

One of the reasons why people see themselves as overly optimistically is because people tend to recall successes about themselves and forget their failures. In psychology this is known as self-serving bias. Self-serving bias occurs when people attribute their successes to internal factors and their failures to external factors beyond their control. Self-

self-serving bias is a common tendency for people to take credit for successes and deny responsibility for failures (“Irrationality,” n.d., p. 73).

According to Compe and Postlewaite (2004), this self-serving bias occurs because humans have a biased memory; they have a tendency to remember easily past successes than past failures (p. 1546). Koriat et al. (1980) argue that there is a tendency for people to “disregard evidence inconsistent with [or contradictory to] the chosen answer” in a particular task (p. 108). Self-serving bias and a tendency to remember success and forget failures serve humans well; these tendencies allow people to bring their self-esteem up and be hopeful and joyous in living their lives. Nonetheless, overconfidence creates many biases and one-sidedness, while underconfidence brings one’s self-esteem down and hesitancy in behavior.

Research in the field suggests several methods, which could help calibrate overconfidence and underconfidence. For instance, Koriat et al. (1980) have showed that when people are required to explain all consideration relevant to their decision, overconfidence is lowered. Moreover, writing contradicting reasons improved subjects’ self-confidence assessments, even though the subjects found the task quite difficult (p. 116–117). Compe and Postlewait (2004) found that

“recollections of failures among these past experiences decreased confidence or performance” on a particular task. This can be due to the fact that recollection of past failures “generated unproductive intrusive thoughts ” (p. 1545). In other words, recollection of past failures reduces self-serving bias and self-optimism.

Additionally, by giving feedback about individual’s performance, self-assessment of confidence can be adjusted. According to McCarthy (1986), both men and women responded to positive feedback by increasing their confidence in performance expectations while responding to negative and no feedback by lowering their performance expectations (p. 845). This is consistent with the notion that positive thoughts and positive comments (e.g. compliments) about a person raise that person’s self-assessment and self-confidence.

Morale is universally recognized as a necessary component to anything from attaining personal success (e.g. losing weight) to public achievements (e.g. winning a medal in sports). The link between confidence and motivation is prevalent in psychology literature from writers such as James [1890] to Bandura [1977], who believe that perceived personal efficacy constitute a driving force of human behavior and success (as cited Benabou & Tirole, 2002, p. 877–878). Therefore,

having a well-balanced self-confidence is vital to health, taking control over one's life, and taking steps toward success despite the risk of uncertainty or failure.

### **Confidence for Men vs. Women:**

Appropriate levels of confidence are necessary for people, yet confidence is different for women than for men. Psychologists have shown that even though both sexes display overconfidence, men are more overconfident than women and gender differences in overconfidence are highly task dependent (Lundeberg, Fox, & Puncochar, 1994). These differences are evident in tasks that are generally considered masculine (Deaux, & Farris, 1977). Men are more likely to be overconfident at financial tasks and decisions despite inferior ability (Barber, & Odean, 2001).

Lenney (1977) asserts that gender differences in confidence are dependent on unambiguous feedback. When such feedback is "unequivocal and immediately available, women do not make lower ability estimates than men. However, when such feedback is absent or ambiguous, women seem to have lower opinions of their abilities and often do underestimate relative to men" (Lenny, 1977, p. 3).

There is some concern that women are not underconfident compared to men, but instead their behavior or how they talk makes them seem to be

less confident. For instance, Pulford and Colman (1997) raise the questions: “Are females actually less confident or are they under reporting their confidence to conform to the social pressure to be modest in a task resembles intelligence–test questions?” (p. 133).

## **Intuition**

In previous section, we discussed the concept of confidence being essential in taking action, making decisions and performing well. For a person to have self–confidence under high level of uncertainty, he or she needs to utilize intuition as a skill in making decisions. According to our assumptions, intuition is one factor making up one’s self–confidence when taking action or making judgment calls. From the conducted interviews, we have gained insights about the importance of intuition—trusting and following intuition is an essential component to the success and confidence of the women we interviewed (please refer to the summary of the interviews). In addition, Harper (1988) argues, “a person’s level of self–confidence can determine whether he or she will utilize intuitive skills” (p. 18). Intuition is often used when there is not enough information or in uncertain situations implying risk (p. 18).

Loye (1983) describes three types of intuition: (1) cognitive inference—conclusions are determined spontaneously and subliminally; (2) “Gestalt intuition”—“the person detects missing data, gaps in information, or hidden relationship within the whole”; and (3) precognitive—gaining information directly about future, which is not based on analysis of knowledge of the past and present (as cited in Rew, 1988, p. 150). In decision-making, all three types of intuition could be used. In management settings, where executives have to make quick decisions under high level of uncertainty, intuition is defined as “a brain skill that is particularly useful for making major decisions” (p. 49). The environment where intuitive skills is essential marked by the following characteristics:

There is a high level of uncertainty; there is little precedent; variables are often not scientifically predictable; ‘facts’ are limited; facts don’t make clear which way to go; time is limited and there is pressure to be right; and it is necessary to choose from several plausible alternatives.  
(Agor, 1986, p. 49)

This highly volatile environment has homogeneous characteristics to making decisions when investing in financial markets. Usually, the facts are limited, there is a huge pressure to be right or one’s money is lost,

and variables are not scientifically predictable. Investors are forced to use their intuition in their decision-making because investing money is potentially risky.

### **Intuition in decision-making:**

Weston H. Agor (1986) specializes in the use of intuition in decision-making. He interviewed and tested several thousand executives from a range of different organizations, including CEOs, emergency preparation military personnel, managers, state legislators, professional civil servants (see Agor, 1986, p. 50). Agor found top managers did make errors, but intuition was not the cause of their errors. On the contrary, these errors or faulty decisions were marked by “failing to follow their intuition” (p. 50). The most common errors included “failing to be honest” (using self-deception and pretense) and attachment—“failure to let things be as they are rather than trying to make them the way they would like them to be” (p. 50). When the executives were making decisions, these errors impeded in trusting their intuition.

Both Agor and Harper stress intuition as a skill that requires training and practice: “Intuition is like a muscle. To work well, it needs to be strengthened and exercised” (Harper, 1988, p. 17). According to Agor, intuition can be strengthened and activated through a meditative

technique in a form of “nonattachment.” Nonattachment is willingness to let things be as they are (Agor, p. 52). We also refer to nonattachment as detachment because one detaches his or her emotions from the object to reduce bias and partiality. Attachment is a roadblock to utilizing intuition in decision-making (p. 50). This is consistent with our hypothesis that detachment allows one to use intuition in decision-making when investing, and intuition is closely correlated to self-confidence.

### **Gender and Intuition:**

The data about intuitive ability in different genders is inconclusive. There are studies, which support the notion of women being more intuitive than man, and there are studies displaying evidence of having no differences between genders (Sinclair & Ashkanasay, 2005, p. 361–362). Graham and Ickes (1997) suggest women particularly show intuitive abilities in vicarious emotional responding and nonverbal decoding ability (as cited in Plessner et al, 2010, p. 101). Additionally, it is argued that women have more experience in observing behavior than men (p. 101). And intuitive ability gets better with practice. Burke and Miller (1999) conducted interviews with 60 professionals across different industries to gain insights about intuitive decision making. According to Burke and Miller, forty-two percent of managers interviewed have said, “they

learned and developed their intuitive skills through experience” (p. 93). Education, training and mentors or role models helped them develop intuitive abilities, especially if they had a close affiliation with a role model “who demonstrated intuitive qualities” (p. 93).

## **Solution**

Drawing on existing behavioral research and the interviews, we have found that emotional state matters when making decisions. Emotional attachment to an issue, in turn, can be a roadblock to following intuition and being confident about making decisions. We created an online detachment tool to help people remove that roadblock. Detachment enhances decision making which can help improve investment outcomes. And, of course, detachment can be also applied to other areas of life where there may be unnecessary emotional attachments or where one has to make important decisions. The purpose of GirlFunds is to help women follow intuition, establish an appropriate level of confidence, and thus improve their chances of successful investing behavior.

The detachment tool we created can be found on the Girlfund website: [www.girlfunds.org](http://www.girlfunds.org). This tool is inspired by the de-fusion techniques performed by ACT (Acceptance and Commitment Therapy) therapists. The purpose of the tool is to guide the user in detaching (separating) from an emotionally attached issue. We define detachment as separation of self from the emotions felt about the issue; this de-fusion allows one to see the issue “as it is” without bias or partiality. Nonattachment or detachment should create a balanced view of the situation.

Our solution focuses on the percentage of the population who are ready for self-improvement and want to detach their emotions from failure. Traditional ACT and de-fusion techniques involve a therapist, but we chose to use technology as an alternative (and sometimes complementary) means to a therapist. The tool cannot replace a role of a therapist or a licensed psychologist. Notwithstanding, we are looking for incremental change in behavior that can be achieved when using technology. We believe using the tool can help women correlate their confidence, and therefore improve their chances in entering the investment arena.

### **ACT & De-fusion:**

Acceptance and Commitment Therapy is born from a behavioral school of

therapy. Hayes (2006, 2005, 1994) is believed to be the founder of ACT as contextual approach to treatment (as cited in Dewane, 2008, p. 34). The ACT therapy involves distinguishing clients' sense of self from their thoughts and behavior. It is believed that ACT allows a person to have a more fulfilling life once the client overcomes negative thoughts and feelings (p. 34). Furthermore, according to Blackledge and Hayes (2001):

ACT is based on the premise that normal cognitive processes distort and enhance the experience of unpleasant emotion, leading clients to engage in problematic behaviors designed to avoid or attenuate those unpleasant emotions. Such avoidant behavior patterns can hinder and prevent client movement toward valued goals and place the client in harmful situations. (p. 243)

Rather than changing cognition or trying to decrease levels of emotions, ACT approach involves the client moving beyond the obstructions created by the negative emotions. The client directly experiences his or her problematic emotions in the context in which the negative emotions do not enhance the negative implications (p. 243–244). ACT therapists use a specific technique called “de-fusion” to achieve a state where clients no longer are affected by negative emotions.

According to Healy et al. (2008), “de-fusion” is difficult to define in simple language:

In clinical terms, clients are described as being “fused” with their thoughts when they believe that their thoughts say something important about who they are. ACT clinicians encourage clients to defuse from their negative content by viewing their thoughts as just thoughts, rather than considering them to have meaning. In this way defusion involves a change in perspective that permits clients to see themselves as more than simply the sum of their thoughts and personal evaluations. (p. 624)

Defusion is, therefore, defined as “the disruption of existing verbal functions of language such that the ongoing process of framing events relationally is evident in the moment” (Healy et al., 2008). One example of the use of de-fusion by Cognitive Behavioral Therapists is the “practice of mindfulness” along with acceptance and awareness ([www.act-kc.com](http://www.act-kc.com)). “Mindfulness” commonly might be associated with eastern philosophy. However, in context of ACT, mindfulness does not involve meditation or have any religious connotation. In the context of therapy, the goal is not enlightenment but a way to separate unwanted emotions from the self, therefore, “doing behaviors and observing moments of being in the ‘here-&-now’”(www.act-kc.com).

Tichener's (1916) rapid word-repetition technique (e.g. "milk," "milk," "milk") is the most well known example in facilitating de-fusion (as cited in Healy et al., 2008, p. 624). For example, a client can be asked to repeat negative words (e.g. "stupid," "stupid," "stupid"). The aim of the exercise is to turn a word that implies some kind of negative emotion to a sound stripped off meaning. The therapist can then explain to the client that his or her negative content is purely verbal and does not reflect reality (p. 624).

Other de-fusion examples involve putting your thoughts outside of yourself, changing thoughts as if they were a radio station or a music soundtrack, repeating the disturbing thoughts in a comical tone, etc. For our tool, we used the technique of "putting your thoughts outside of yourself". We asked the users to imagine a cloud floating in front of them, then the users were asked to put all their negative thoughts and anxiety into that cloud and watch the cloud gradually floating away until it becomes a tiny dot.

### **Tool Creation Process:**

We used a user-centered approach to create Girlfunds' de-fusion tool.

We created a paper prototype and tested the paper prototype on several

users. We had several iterations of the paper prototype, and once the tested prototype showed positive results—there was a behavioral change in users—we created a simple HTML prototype without any color or styles. Again, we tested the html version on several users to find ways to improve the tool and incorporate ease of use. This iterative approach continued for several cycles, until we created the current version of the tool.

### **Using the Tool:**

All of our users create personal accounts on the girlfunds.org site. Once an account is created, the tool asks users to self-report private information, and then go through a negative and positive priming process. First, the tool evaluates the user baseline state; second, asks to think of negative outcomes for their situation; and third, walks the user through a three-step detachment process from possible failures that may occur in a self-reported scenario. The three step detachment process involves (1) creating alternative plans in the case of failure (2) separating from attachment to self reported scenario, and (3) going through an anti-anxiety breathing exercise. Users have a sole access to their account, and they can use the tool to monitor their behavior after performing the exercises several times.

We use a random selection of positive, negative, and neutral words to measure users state during each priming state. The words are obtained from this website: <http://www.psychpage.com/learning/library/assess/feelings.html>. In each priming state, we show 24 total words: 8 random positive words, 8 random negative words, and 8 random neutral words. See **Appendix 4** for the list of words.

Baseline:

The users are asked to pick 4–5 words that correspond to their state of mind at the start of tool use. The baseline state is calculated from these words by counting the positive, negative and neutral words.

Negative Priming:

In this stage, a user describes an issue that she is troubled with. The user is asked to confront the issue's failure and then pick 4–5 words that she associates with this failure. Negative priming is often used in psychology to unfavorably influence the user's response to a stimulus. This negative priming is necessary to calibrate any overconfidence. It had been shown in numerous studies that thinking about failure lowers overconfidence (please see "confidence" section of this paper). Confronting the exact fear you are concerned about, allows the user to release fear. Thinking about failure will elicit distressing thoughts, but will also allows the user to

clarify what she is afraid of.

#### Positive Priming:

For positive priming (asking the user to confront the failure), the user is asked to complete a series of three exercises. In exercise one, the user is asked to create alternative plans, which lowers the risk of uncertainty and creates a safety net in the event of failure. In exercise two, the user is asked via an audio recording to use her imagination to create de-fusion or detachment from the issue of concern. Attachment is a roadblock to making decisions and following intuition. De-fusion is necessary for a person to see the issue “as it is” without bias or partiality. In exercise three, the user performs a breathing exercise in order to remove anxiety. The breathing technique—for example, breathing in on the count of 7 and breathing out on the count of 11—is often used to reduce anxiety or panic attacks. Worrying thoughts cause anxiety; the purpose of this exercise is to remove anxiety or worry and elicit relaxation. After completing the three exercises, the user is asked to choose 4–5 words that describe how she feels at that moment.

At the final stage of using the tool, the user is asked to describe how they feel and provide any additional feedback they have about the tool. After that, the user is taken to a summary page where the graphs show their

results. See **Appendix 5** for screenshots of the tool.

The core function of the tool is to increase confidence in allowing one to follow intuition in decision-making. There is no right or wrong answer, and the results will vary from person to person. If the tool is helpful, we believe the user will feel calmer and positive at the end of this experiment, and less concerned about the issue of concern.

### **Tool Usage Results:**

Since the tool is online and can be used at anytime by any user, the results are not static. At the writing of this paper, 83.3% of users reported calibrated levels of wellbeing after using the GirlFunds tool. 16.6% of users reported no change in their wellbeing after using the tool. 25% of users displayed elevated levels of confidence at the beginning of the tool compared to 75% of users who displayed lower levels of confidence at the beginning of tool usage.

### **Conclusion**

Since we suggest an appropriate level of confidence is critical to gaining and sustaining success in long-term investing, using our tool suggests that it will help correlate confidence levels which in turn will contribute to better decisions made under uncertainty -- such as choosing a stock to

invest in for the long term. Additionally, our findings suggest that a future implementation of the detachment–intuition model in existing websites focusing on increasing women’s awareness of finance and investing would contribute to solving the economic, social and personal problems associated with women’s underfunding for retirement.

## **Appendix 1: Sample questions asked during interviews.**

1. Tell us a little about yourself? / Tell us how you got here?
2. Do you consider yourself successful?
3. Do you have your own business? / Do you consider yourself independent?
4. What are your goals? / What are your intentions?/ Do you have any goals for yourself/career?
5. What are your defining moments?
6. Did you have to overcome certain challenges because you are a woman?
7. Do you think life today is significantly different for a woman than 5/10 years ago?
8. Can you tell us about an obstacle that you overcame that helped you on your success path?
9. How do you maintain your work–personal life balance?
10. When you have a decision to make, what is your decision process?
11. What is your overall mission?
12. What are you proud of? Grateful of?
13. Do you have any regrets?
14. Do you consider yourself a confident woman? And why do you think you are or why not?
15. Are you an investor? Do you hold any long–term investments (mutual funds, etfs, cd's)? Can you give us the names of some of them?
16. If yes, what got you into it? If not, why haven't you?

## Appendix 2: Key interview insights and applicable quotes.

### 1. Having Mentorship & a Support Group

All interviewees speak of mentorship as a significant factor in their lives. Mentors influence and provide support at each stage of their lives. Mentors were not actively sought out; on the contrary, they came into the interviewees lives accidentally. And once mentored, their relationship evolved into a close friendship. Most of the mentors and role models are female, however several interviewees also had male mentors as well.

“I never sought to formally find a mentor. I was very lucky to happen into circumstances where I had access to different kind of people. I never worked with people my age in 10 years, until now because everyone that I worked with were much older.” –Jessica

“She was my boss at the hedge fund. She was my mentor in a sense and a closest friend.” –Claire

“Oh yea. It was a woman. She’s still my mentor. I still meet with her once a month. It’s on the calendar [...] we’ve also become really close friends and so our families will go take trips together—go snowboarding and that sort of thing—she’s still in my life and she’s this huge, huge reason for my success” –Tirunesh

“I actually was very lucky [...] to have two really great mentors. It’s actually something that I feel is lacking in my life right now.” –Grace

“Oh, big mentors. I would say I have had, I’ve been very fortunate in my mentors. My very first mentor was my father and my father had his own construction business. So, ever since I was little, I used to sort of answer his phone and be involved in a lot of his client relationships, people, contractors wanting to get paid, homes being delayed and irate customers, so he was my very first mentor.” –Nadia

In addition, the interviewees explain the importance of following through on their mentor’s advice adding that their mentors enjoy mentoring them because they followed their mentor’s advice without hesitation. The interviewees’ mentors see the influence they have over their apprentices, which makes the mentorship process enormously rewarding.

“It’s super rewarding to mentor me because she sees that I take it on board and that I try to change my behavior and it makes her want to

mentor me more because she sees the huge impact it's had over the years." –Tirunesh

Furthermore, having a support group comprised of family, husbands, and friends give these women encouragement, belief in themselves, strength and comfort in their career and personal endeavors.

"Mostly because of what he [the husband] is. He keeps balance in me [...] He doesn't beat me up, doesn't second-guess my decision."– Lael

"He's [the husband] extremely supportive [...] he was the one who first encouraged me, when they asked me to apply, who said yea, go, put your hat in, and I thought "eh", and he always encouraged me. He said to me, he thought leadership would be good for me, so, there you go." –Meredith

"This is something that my husband helped coach me. I talked to him and I had a girlfriend who's a psychotherapist and I walk with her everyday when I can, and I would complain to her and she would say this is what's going on, you gotta do that, so that's very helpful" – Meredith

Interviewee speaks about her female coworkers:

"These are the regulatory concerns that comes up for them and [they] share that information readily and those usually comes from the women, which I find interesting" –Claire

"I think I had fantastic role models. You know, my parents. My mother is a poet and a lawyer. Very accomplished woman. [...] I grew up in a household where I had very strong role models. My mother was one, my aunts [...] so my family for right or wrong had quite a few women." –Nadia

"I just had different people in my life that helped me to balance out physically and spiritually. And that's morphed over the years who that person was as I changed." –Lael

## **2. Using Intuition in decision making process**

Intuition plays a very important role for every woman we interviewed. Our interviewees employ intuition during work as well as when they make

decisions. For them following their gut instinct is the way to be true to themselves.

“I have pretty good intuition about people and usually my instincts are pretty good when it comes to dealing with friends and making decisions.” –Tirunesh

“I have to follow my intuition. There’s no question that there’s some of these things that you can’t quantify.” –Meredith

“Big decisions, I generally have an initial hypothesis, like a gut feeling, but then I go and solicit data.” –Nadia

“I’m much more intuitive worker [...] and I more— let me sleep on it, I’m sure I’ll have an answer in the morning, what I always do.” –Jessica

“I’m a big believer that my subconscious goes and works on problems when I am not [...] paying attention to them. I would do these math competitions when I was in school that were like 5 hours and you had to solve these three problem solving problems and I would like have a nap in the middle because I believed that that would help me.” –Grace

“I think you have to listen to your gut. [...] I honestly think that there’s so much going on with our lives, that when faced with a decision, we can’t really see clearly because there’s so much noise. So we really have to take some time, even if it’s just an hour to be quiet and to go somewhere peaceful and to take away all the distractions and to take away all the noise and to say: “ Ok, listen, what do I really want?” – Tracy

### **3. Action is better than no action**

According to the interviewees, taking action is better than taking no action at all. In a sense, failing is encouraged because opportunities to learn from mistakes exist whereas taking no action has no viable growth possibility. A common theme echoed in every interview—it is vital to be brave and not be afraid of making mistakes; mistakes are absolutely necessary for personal growth.

“The worst thing I could do is either not make a decision or make a half decision. People need you to make a decision and move on. I have

learned to say I was wrong and move on, and people respect you if you're willing to say that" . –Meredith

"The times I am too conscious about making a decision, are the times I make a bad decision." –Grace

#### **4. Breaking problems into small parts.**

One interviewee described a story about her three-year old son who was afraid of skiing on a hill. The morale of her story was that breaking down a big problem into small steps allows a person to move forward and overcome challenges.

"I asked him do you want to go to a practice hill and practice a little and he says okay. And we do it couple of times and then we go back to the line. I ask him if he's okay with that. He's okay. We go several times holding on to each other. He's having a great time. I'm kind of watching him that he overcame this thing big and scary. As a human being and as a parent I'm inspired by this amazing show of patience. He is like... this was so much fun. And the last time he says that he wants to go by myself. Great. It made him braver, he internalized it, breaking things down to their steps." –Jessica

#### **5. Detachment is a form of balance.**

The interviewees speak about having a sense of detachment from their emotions about an issue. Through detachment a person can separate their emotions from the stated goal, and emotions do not get in the way of taking action. Additionally, detachment techniques allow interviewees to deal with the problems or issues they face with equanimity.

For instance, one of the interviewee talks about creating a mental box to compartmentalize one's emotions from the task that he or she has to do. It is still important to be emotional but not so emotional that one can't do his or her job.

"I talk through the importance of compartmentalizing and what that mean, you allot yourself a space to be upset or concerned about something but then you imagine yourself putting it in a [mental] box and closing it and putting aside, so it's actually not visible to you so you can focus on something else. You give it

space but you have to compartmentalize and ongoing success.” – Joy

“The only way to be genuine and authentic is be able to express your self but then take a moment to stop and it's a meditation to put it in a box and put it to the side, its not a physical box, its a mental box. [...] You need a method for dealing with it. And if you do it enough, if you do it in a meditation form, then you can get yourself through.” –Joy

Another interviewee works as a financial advisor and manages large amounts of capital. In order to prevent the volatility in the financial markets from affecting her personal life she relies on meditation. Meditation is vital in her life; it allows her to maintain perspective and detach herself from the emotional roller coaster that she experiences when working within the stock market.

“Balance is very important in my life [...] I was meditating since 97 and I don't know what it is called, I used to sit and meditate. Somebody recommended back then and started to and it's been a habit ever since. I went through a very stressful time because of 99, and meditation saved me.” –Lael

Another interviewee speaks about detachment as a form of separation in order see the true reality of the situation instead of a perceived picture.

“I do spend quite a bit of time digging into a lot of the literature and getting as many facts as I can, but then spending a lot of time looking at situations I am in, you know at work, etc. and kind of divorcing myself from them and saying if I am an independent observer ...” –Grace

## **6. Love for work enhances life**

Most of the women we interviewed entered their career because they love what they do for work, and doing what they love is one of the reasons why they feel fulfilled and satisfied in their lives.

“I loved the variety of people I met. I just found it very interesting, and I became very curious about it. Because at the end of the day, I realized it's all about people. There's no such thing as 'business', or anything of that matter. [...] I am curious about people, I enjoy talking to people, I love learning about what makes people tick. I like learning

how you organize them to move in the same direction. I just enjoy learning about people and so that's what I realized business is." – Nadia

"Although I'm in the money business, money was never a big driver of mine, so I picked a career that I was interested in, I wanted to help people and understand money better." –Lael

## **7. Having a positive outlook for yourself**

One of the interviewees is a remarkably successful personal fitness instructor. Her secret to being successful is to have a positive view of herself. A crazy positive attitude— that's what she teaches her clients.

"I am crazy positive. It's something that's intrinsic to me, I always see the bright side, it's my moms fault, every time, I always look on the bright side and it's something I think has helped me succeed and it's something that's always brought more joy to my life." –Tracy

"The Hardest clients are those that beat themselves up [...] I always tell [my clients] that if you're in an abusive relationship with yourself— you're constantly putting yourself down, or telling yourself that you're not right, or telling yourself that you're not ever going to be able to do it, or you're too fat, you're too skinny, you're too tall—you'll never do it. You have created that reality for yourself until you shift your mindset toward, no you're healthy, you're active, you're perfect just the way you are then you accomplish your fitness goals." –Tracy

## **8. Be the person you want to be & pretend until you become it**

Another element to having a positive view of yourself is "believing in yourself." According the interviewees, you are the only person that can make a difference, take action and guide yourself.

"You're your own best guide, really." –Lael

Additionally, if you want to become somebody, you have to pretend as if you are already that person.

"If you can't be who would like to become today, FAKE It! Be that person, be the person driving down the road, and you see it's a two lane road, and somebody is crossing the street, instead of just

stopping, do an extra thing and put on your hazard signal, so the person around you doesn't weave around you and doesn't hit the person in the crosswalk. Whatever it is for you, the person you want to be, be it today. Do it anyway." –Lael

## **9. Experiment to find yourself & don't be afraid of change**

The interviewees seemed confident and accepting of change in their lives. They are not frightened to take charge of their lives and experiment, take wrong turns, and follow their "gut instincts". For instance, one of our interviewees told us a personal story about how she woke up one day and had an epiphany, a gut feeling not to pursue an MBA, even though, career wise, it seemed like the easiest path to take. Today she runs her own company and maintains dual roles of CTO and CEO. At the time though, these were the thoughts that were going through her head:

"I would go and do my MBA, and then I would have all of this debt, and then to get out of the debt I would take a job at a management consulting firm or mid level management in a big company. And I was going to be back exactly where I was right now, just slightly more educated. And I was like, I don't want to be doing this, I don't want to be doing this, I want to be starting my own company! Kind of the turning point at that point; I dropped out of the MBA that I hadn't started yet, and said that if I'm going to do that then I have to, I really want to pursue this dream." –Grace

On the importance of being exposed to many different experiences one of our interviewees explained:

"I think that I learned a lot from looking at these entrepreneurs in Silicon Valley when I first came here. Because, I thought wow, you know these people... I remember one guy I met, this very successful entrepreneur, he said, the day I met him. He said, 'I just fired my best friend,' and I said 'Really?' And he said, "We're going on vacation as families together next week". So, I learned a lot. So, I think that the best we can do for women is expose them to lots of different experiences and situations. Because, when you get exposed, you clarify your preferences, 'Do I really like this or do I like that?'" –Nadia

## **10. Saying no & walking away**

As part of experimenting with oneself and not being afraid of change, all the women we interviewed talked about the importance of saying 'no' and walking away when they knew it was the right action to take.

"Career wise, I'm proud of walking away from something I thought was messed up." –Jessica

"There's been certain clients who really want to work with me, and I really do want to help them but I know in my gut it wouldn't work out — I just know our schedules or it probably wouldn't be the best partnership and I have to turn away work opportunities." –Tracy

One of the interviewee reflects on how she said 'no' to a great opportunity, and how she reasoned that it was the right action to take for herself at that specific moment in her life:

"I was hired for an awesome kickboxing video and it would have been a great way. I'm getting paid to exercise on video that I can share with other people, and what a great opportunity. You get hair and makeup, outfit, everything... and fitness videos are like the gold mine in fitness, right? But, I was dealing with recovering from tendonitis and I was one week away from being completely healed. And I knew that if I did the video I'd be 6 months back in my rehab, and I knew that I would be re-injured again should I go bounce around for two days straight in a kickboxing video and I had to really be honest with myself." –Tracy

## **11. Be Not afraid of failure**

According to the interviewees, failure is essential to sustaining confidence and a key component of personal growth.

"You have to not fear looking stupid, ask the dumb questions, learn and then you will do a good job in the future. But you have to be not afraid to ask the questions no matter how simplistic they are you might think." –Claire

"You have to not fear failures because I have failed and I get rejected on the daily basis. But I think that anybody who makes it, definitely on the larger scale than my career, maybe they get embarrassed when they get no or rejected but they would do it again. So, I think that it should not throw you. Every career will

have ups and downs, you have to put yourself and ask what you want. And no one in finance has not come in and said hey we just want to give you a promotion, quietly over there.” –Claire

“One of the things I said to my son, is that you cannot succeed without being able to fail, you can't, because you can do very well but if somebody who can't fail, you have to be perfect, you'll never will find out what you are capable of.” –Lael

“And my son plays baseball and batting average is for a professional baseball player is batting third, 300, is the great batting average, meaning they fail 2/3 of the time when they to get up to bat. I mean if I can be successful 60 times in my decisions, I'm incredible successful.” –Lael

“Not being afraid to fail is really important. [...] my motto in life has always been— do your best, not necessarily succeed. In other words, I say that to my son, just do your best and if it works out great, otherwise, you can say you've done your best and that's all you can do. It was my father who instilled that in me. He would always say 'do your best' and I just think it's sort of stuck with me and I see in others, they are afraid of failure because their motto is that you have got to be perfect.” –Nadia

## **12. What you take away from hardship — resilience.**

Our interviewees have all had to overcome hardships in their lives. However, it's not the hardships that make them different, it's what they took away from these hardships. One such takeaway is resilience. They learned to be resilient in life—flexible to the environment, not too sensitive, and not giving up easily.

One of the interviewee speaking about her difficult childhood:

“I think it made me very resilient, not too sensitive, I think those are important in business. I don't, I'm not saying it's a male quality at all. I just saying that, being able get passed, or not being too sensitive about people saying comments and to not take things personally is important.” –Joy

One of the interviewee talks about her gymnastic coach:

“From the young age I stuck up for myself. I remember...gymnastics was such a strong memory for me...my

coaches would just yell, they just did, I was that kind of kid that did not need yelling to achieve. I worked as hard as I possibly could all that time. [...] I remember one time. I was telling my head coach, that I am working out as hard as I can, this is what the situation is... I think I actually told him, I asked him if I can see him upstairs office, I called him out of the gym for a private conversation, like he did to us, can we talk upstairs, and I told him, you know me, I work this hard, why are you yelling at me?" -Claire

One of the interviewee talks about her life in Iran:

"I had a very important setback in my life. I am from Iran originally and as you know there was a big thing called the revolution. I was in college at the time, I had two younger sisters, I had parents living in Iran. So, my entire world was turned upside down. And I think when you go through a major upheaval where everything has changed—your parents are put under house arrest and everything they've worked for all their lives is confiscated, you've got two younger sisters that you've got to take care of, all of the above, it really forces you to think what's important in a sense." -Nadia

### **13. Live from core values**

Another dominant theme from our interviews is the understanding that a person needs to live from her core values to be happy.

"So, I think when you know your top values in life, you can set your priorities and you can set your goals." -Tracy

"What ever the mind of men can conceive and believe, he can achieve. These are powerful words." -Lael

"It was so hard, but you know, when you know your values in life, and you know yourself. I know I value health more than I value recognition or fame. I know that I value making other people feel successful and I value my job ... I think the values thing is huge. I think so often people go through their lives with no direction and then they end up unhappy because they never took the time to think about their values in life. Because, if they sat down and said: 'OK, what do I value? Do I value recognition? Do I value family? Do I value success? Do I value writing? Do I value health?' If they really identify their three top values then they could choose the work opportunities that are in line with those values and then they accomplish the life that actually makes them happy." -Tracy

#### **14. Failure is different for girls than for boys**

A compelling insight from our interviewees was on the meaning of failure and how it's different for girls versus boys. Girls seem to internalize failure and failure is usually framed in terms of relationships. Boys on the other hand frame failure as a side effect of competition. This difference in framing has different, negative connotations for girls than for boys.

"I have learned not to be so hard on myself. I mean there was a time when I probably wouldn't have been able to cope. I'd say oh my god, I screwed up, I was so awful, I'm an awful person, because women take things so, they just internalize them." –Meredith

"Women are not so used to competition. Men, ever since they are young are used to this socialized competing. You win a game, you lose a game. boom boom boom. With women it's all about relationships, I want to console you, I want to comfort you etc, and so failure takes on a different connotation. I don't think we've developed the muscle for that." –Nadia

#### **15. Success is intrinsic**

A similar theme echoed throughout all interviews: success is intrinsic. If she feels happy with what she is doing, she will feel successful as a person and in whatever she does in her career.

The following interviewee talks about the upheaval in Iran when she was young:

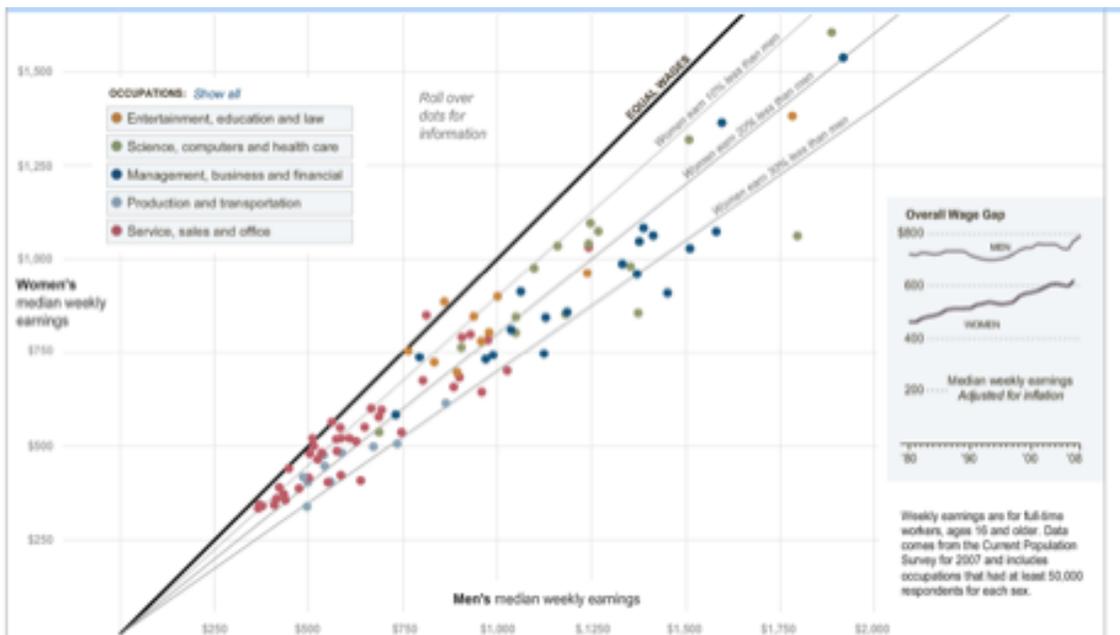
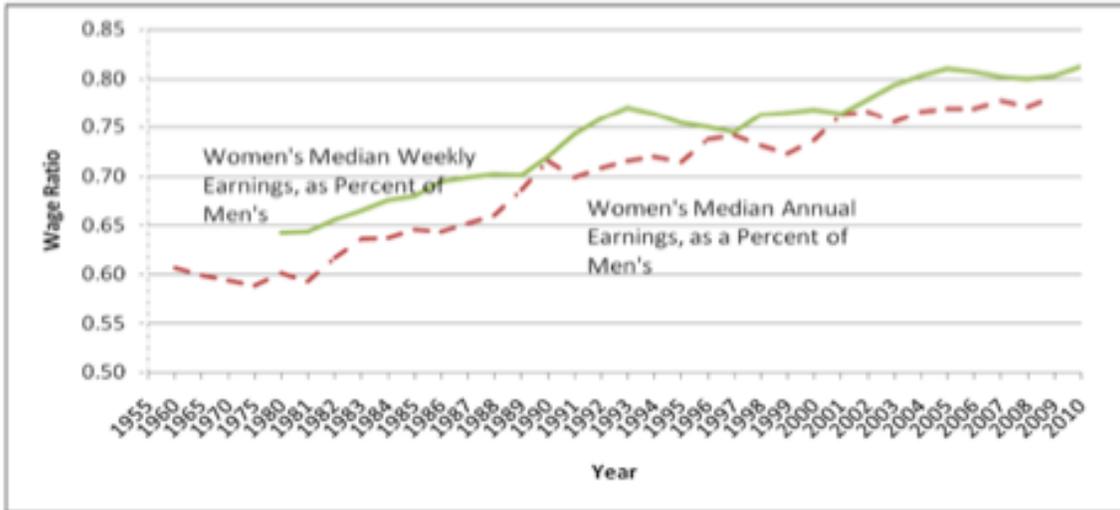
"I think one of the things it [the upheaval] told me is 'Listen to yourself and your inner feelings, because these external measures of success can be very fleeting'. You know we had friends who were viewed by any external measure of success as fantastic, hugely successful before 79 and after 79 they were nobodies." –Nadia

### Appendix 3: Comparison of male to female wages by year and profession

(source 1: Institute for Women's Policy Research)

(source 2: New York Times)

The Gender Earnings Ratio, 1955-2010, Full-Time Workers



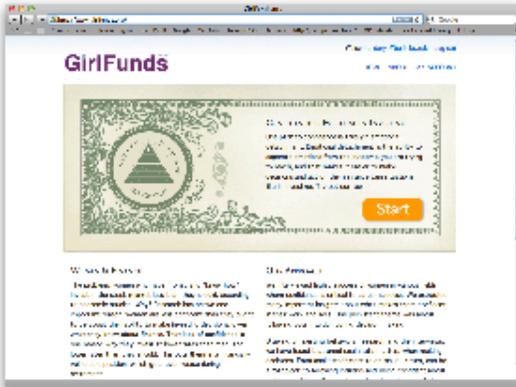
**Appendix 4: List of positive, negative, and neutral words used in testing.**

(word source: <http://www.psychpage.com/learning/library/assess/feelings.html>)

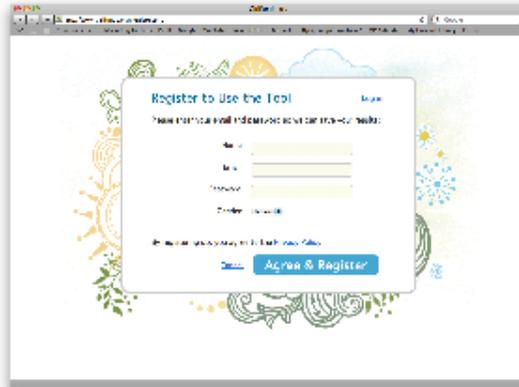
Positive Words	Neutral Words	Negative Words
confidence	accepting 3	uncertainty
hope	free 3	pessimism
knowing	balance 3	untrusting
strength	parity 1	decline
excited	peaceful 2	not knowing
optimistic	calm 2	constrained
inspired	serene 2	disappointed
enthusiastic	quite 2	upset
happy	blessed 4	doubtful
elated	content 4	sad
sunny	comfortable 0	discouraged
energetic	considerate 2	miserable
thrilled	bashful -2	distressed
wonderful	tenacious -3	alone
encouraged	hardy - 3	incapable
pleased	daring -2	frustrated
merry	challenged -4	disillusioned
cheerful	surprised -2	bitter
secure	reassured -3	resentful
joyous	<b>reinforced</b> -4 reinforced	hesitant
delighted	dull -2	dominated
easy	bored -2	
	nonchalant -2	
	disinterested -2	
	timid 0	

# Appendix 5: Screenshots of the tool

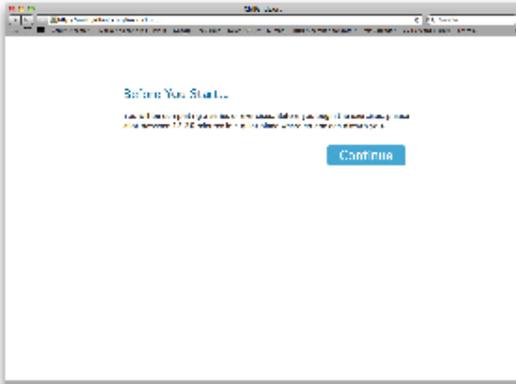
1. homepage



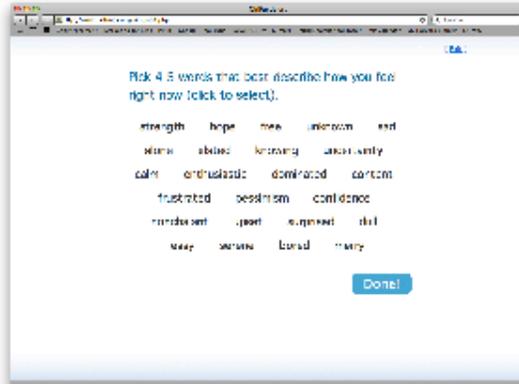
2. Register



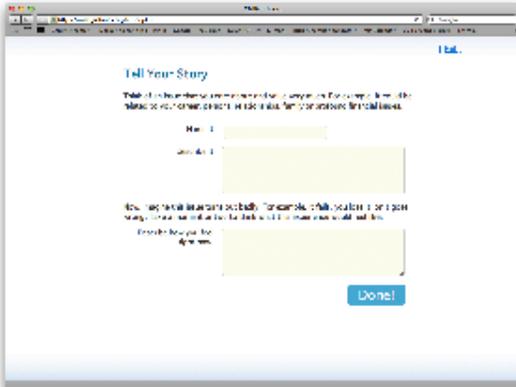
3. instructions



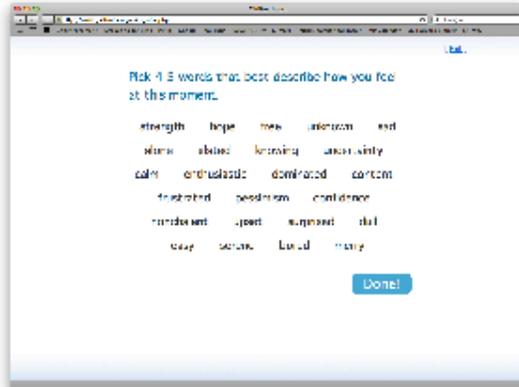
4. baseline



5. negative priming: describing the issue & thinking about failure

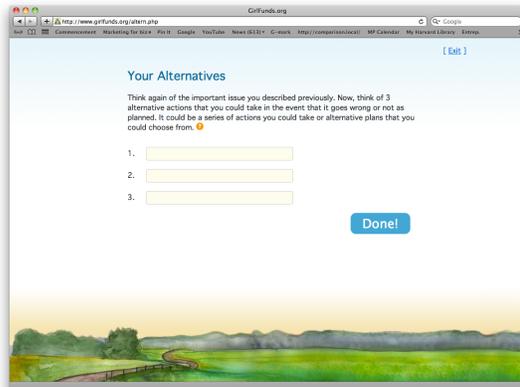


6. picking words after negative priming

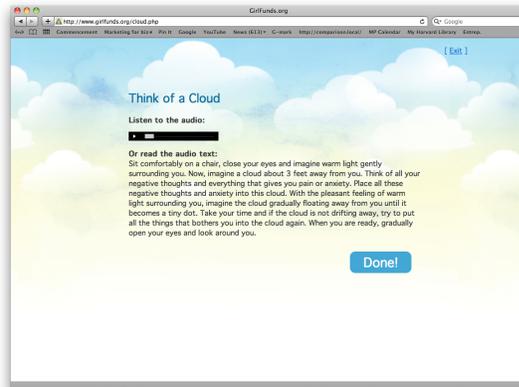


## Appendix 5: Screenshots of the tool (continue)

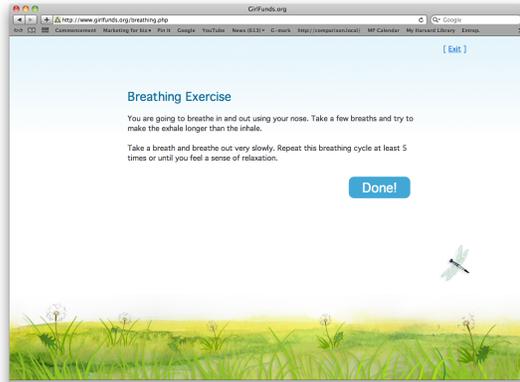
7. positive priming, exercise 1: thinking of 3 alternative paths



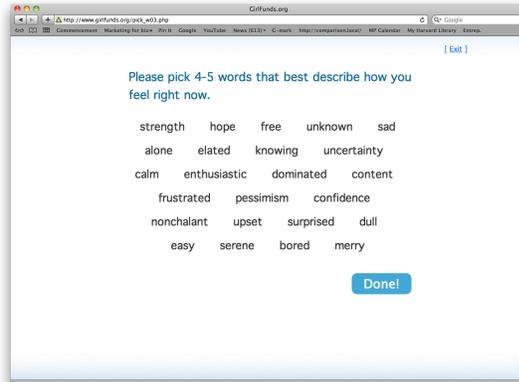
8. positive priming, exercise 2: detachment



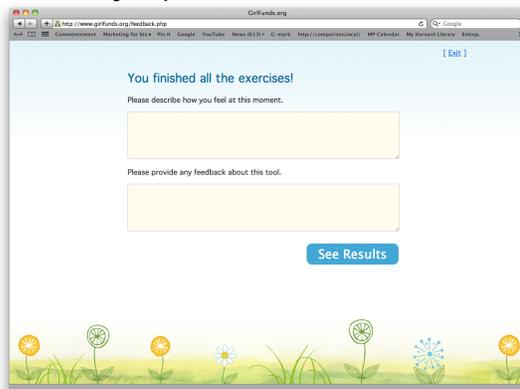
9. positive priming, exercise 3: anti-anxiety breathing



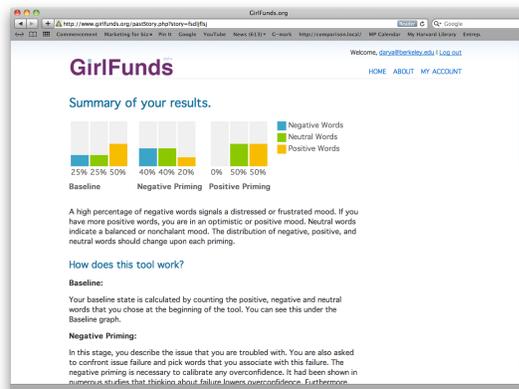
10. picking words after positive priming



11. describing how you feel & feedback on the tool



12. summary of your results & how the tool works



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