

EVOLUTIONARY PSYCHOLOGICAL EXPLANATIONS OF SOCIAL COMPETITION RELATING TO DEPRESSION

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Abstract

The main topic of this study is social competition and its relation to depression in evolutionary terms. It was hypothesised that failure in social competition would be positively and success in social competition would be negatively associated with depression. Two inventories were employed: one self-devised on success and failure in social competition terms, and another on depression, called the BDI-II. Participants were 53 teachers from a town in Northern Greece who rated both inventories. The findings have shown that failure and success in social competition did not associate to depression for correlations were not significant; no significant correlations were also found on success and failure with depression across gender and separately for men and women; and finally, that correlations between success and failure items selected from the self-devised inventory were found as well not significant across gender and separately for men and women. In an evolutionary context, there were discussed issues of lowered perceptions of success following depression during social competition and issues on the maladaptiveness of success, failure and depression. One of the strengths of this study was that findings have shown that failure may not be associated to depression. One limitation, that the sample should have been drawn from a British audience and not otherwise.

Keywords: *evolutionary psychology, social competition, depression, success, failure*

Introduction

Social competition is a process of interaction individuals employ to contend with one another (Bowles, 2001). Competitive interaction may take place at work, in intimate relations, or during agonistic struggles. Social competition introduces conflict to human interrelationships and refers to an experience our ancestors had to deal with in the Environment of Evolutionary Adaptedness (Neuberg, Kenrick, & Schaller, 2009). Social competition operates mainly via success and failure. Competitive individuals who succeed over others increase efforts of interaction in an attempt to win further success. Those who fail may increase efforts to overcome failure, or may withdraw from agonistic interactions in an attempt to save energy so to be protected from additional failure (Duley, Conroy, Morris, Wiley, & Janelle, 2005). If social competition leads to recurring failure, competitors may develop depressive attitudes. Depressive attitudes exhibit low mood states, withdrawal from competition and submissiveness (Gilbert, 2000). Social competition is a matter of detailed discussion and of numerous writings in evolutionary theory as to its implications on agonistic interactions and consequences among humans.

Social competition in evolutionary theory

Social competition depends on interpersonal interactive relationships, such as one's association to societal principles or one's cooperation with others (Chan & Ybarra, 2002). People compete with each other in order to succeed in the allocation of means, in the accumulation of power, and in the exercise of control on others (Alexander, 1971; Durham, 1976). Competition in society can be explained as an individual's survival effort before an adaptive challenge, such as

striving for the gathering of food so one's family to be sustained, which could be prone to contests with conspecifics who aim at same objective (Kriegman & Knight, 1988).

Social competition is a generic term and could also refer to issues of adversity and hostility individuals experience in given environments, such as one not getting promoted, or working hard without acknowledgement (Smelser, 1989). It could also refer to human sociality imperatives, such as the fulfilment of social exchange standards (Blau, 1986). In social competition terms, social exchange standards define gaining access to resources via increasing benefits and reducing costs, whilst also promoting cheater-avoidance through the help of potential co-operators (Burne & Corp, 2004). Members of the society compete in order not only to succeed in interactions, but also to gain benefits out of each other (Hawley, 2008). Those who do not meet social exchange standards, while interacting with others, undergo reduced social status and submissiveness during competitive contexts (Björkvist, 2001).

Social competition incorporates issues of social hierarchy and agonistic behaviour. In social hierarchy terms, social competition could employ perceptual and cognitive issues of *flight*, such as carelessness on something of common interest - for instance, courtesy on the road; *fight-avoidance*, such as accepting impassionedly a manager's tough behaviour on staff, and *compulsive obedience*, such as tolerating a Head who is not to one's liking (Clark, 2002). In such a way, asymmetry could be introduced in interpersonal relationships meaning that one is not interested in taking seriously another's ideas or views. Through asymmetry, individuals in societies choose either to impose themselves over others or be subjected to them. Social asymmetry may introduce escalation or de-escalation in social contacts through which persons heighten or diminish their social status, according to their needs and expectations from others (Price, Gardner, & Erikson, 2004). Those who succeed during competing interrelationships may be capable of exercising compelling behaviours to others. Those who fail are likely to feel incapable to confronting others and instead they may adopt depressive states of behaviour (Campos, Besser, & Blatt, 2011).

Social competition strongly depends on the social structures of a given society. Social structures can either be *relational*, *normative*, or *hierarchical* in nature. *Relational social structures* refer to reciprocal interactions between individuals, such as returning a favour to someone (Fiske, 1992). *Normative social structures* represent conventional attitudes, whereby members of the society obey rules in the same way as others, such as paying taxes (Guala & Mittone, 2010). *Hierarchical social structures* refer to agonistic interactions between conspecifics in view needs of better resource accumulation to be satisfied so individuals to assume superiority on others (Appleton, Christenson, & Furlong, 2008). Social competition can be, at times, characterised as hierarchical competition between individuals in order issues of adaptation and survival, such as workplace difficulties or unemployment, to be successfully dealt with (Pierce & White, 2006). Individuals in their wish to survive during social competition contests enhance attempts to ascend hierarchically and leave others behind. Those who try to succeed engage in a struggle between one another, or compete by exercising coalitional strategies (Flinn, Geans, & Ward, 2005). Social competition is a fitness-oriented effort. Successful competitiveness derives from the pay-offs individuals are rewarded, whereas failure derives from pay-offs individuals had been unable to gain (Sussman & Garber, 2005).

The social rank hypothesis of social competition

Social competition is widely discussed in evolutionary theory. One of the main theoretical assumptions within these discussions is the social rank hypothesis (Price, 1972; Gilbert, 1992). According to this theory, hierarchical social structures play the most important role on the aspect of competition among humans (Sturman & Mongrain, 2008). Competition, according to this theory, means dominance, which can be achieved through agonistic struggles and/or cooperative strategies, such as higher-ranking individuals imposing upon or being affiliated with lower-ranking others. Those who compete successfully prevail and climb up the rank; those who fail lose rank (Sidanius

& Pratto, 1999). In social rank theory, competitors are competing for better collection of resources as well as for the acquisition, preservation and maintenance of social status. Higher-rank individuals demonstrate escalating strategies towards others, such as fight and superiority, whereas lower-rank individuals demonstrate de-escalating strategies, such as flight and submissiveness (Price, Gardner, & Erickson 2004).

The submissiveness issue of the social rank hypothesis

The social rank hypothesis talks also about the issue of submissiveness as a yielding strategy that failed competitors adopt in order to avoid further losses and damages (Price, Sloman, Gardner, Gilbert, & Rohde, 1994). According to Price, Sloman, Garder, Gilbert, and Rohde (1994), submissiveness functions in three ways:

- a. As an inhibition of aggressive behaviours against whom an individual has competed against and failed
- b. As a no-threat communicative sign towards a rival
- c. As an acceptance that failure is a reality and complacency that further conflict will be avoided

In this way, individuals who have failed a competition may feel relieved, only if reconciliation and rapprochement have been achieved. That means that individuals behave in a voluntary yielding strategy towards resolution of their conflicts with others. On the contrary, if reconciliation and rapprochement are not achieved individuals may subordinate involuntarily, which may lead to depressive behaviour (Sloman, 2000; Gilbert, 2006).

Evolutionary explanations of success and failure in social competition

Success increases motivation and engages individuals to agonistic interaction, such as studying for a degree in order to obtain a better financial status (Sloman, 2004). Failure may decrease motivation and disengage individuals from agonistic interactions (Elliot & Church, 1997), or may engage individuals in more agonistic struggles in order to escape future failure (Boggiano & Pittman, 1992). Success and failure in competitive environments may give rise to perceived status of self-worth, such as one thinking of oneself as superior, or inferior compared to others, and may enhance or reduce feelings of self-esteem, issues of identity and beliefs of belonging or not belonging, to a particular group or a team (Crocker, Brook, Niiya, & Villacorta, 2006). Individuals who succeed in perceptions of self-worth believe they are part of a constructive whole, whereas those who fail consider efforts of self-worth as an incessant struggle of conflicts and rejections (Navarette & Fessler, 2005). In evolutionary terms, success and failure can be adaptive, for:

- a. On the one hand, success can maximise one's efforts and therefore one's coalitional fitness in society, such as developing cooperative strategies, and
- b. On the other, failure can increase one's feelings of self-blame and de-escalating strategies to salient others, such as giving-up efforts and considering oneself as less capable compared to others (Gilbert, 1992).

De-escalating strategies may also refer to adulation strategies, whereby one's social state is diminished, such as admitting defeat before a rival and accepting one has lost a confrontation (Price, Sloman, Gardner, Gilbert, & Rohde, 1994). Adulation, or otherwise called servile flattery, decreases one's competitive capacity while enhances a rival's fighting ability (Bateson, 1972). In this way, one who had lost a competition exhibits submissiveness and subservience to potential others to an effect opponents' competitive capacities to further escalate (Price, 2009). Competitive interactions may prove unbearable for failed competitors and submissiveness the means to a self-

preservation attitude in order further physical and/or psychological harm to be avoided (Sounderpandian, 2007).

In many individuals, failure seems to be a repeated experience, such as attempting to find a job and not getting it. In this way, one's self-confidence is at stake as well as one's initiatives (Smelser, 1989). The issue of failure implicates maladaptive repercussions to individuals' wellbeing and balance (Durham, 2004). The understanding of a maladaptive cycle for failure is an important chapter in evolutionary theory. It is associated with loss and lack of goal-oriented behaviours. One's perception of one's self during the maladaptive cycle of failure is that in a socially competitive environment defeat appears the only acceptable mode of survival (Price, Sloman, Gardner, Gilbert, & Rohde, 1994). Failed competitors, via exercising de-escalating demeanours, may consider that submission and a subordinate role is the only means to assist them in avoiding further psychological injury (Sloman, 2000).

Nevertheless, a maladaptive cycle of failure may not be an experience attributed to failed contestants only. The cycle of success may be maladaptive as well. Those who succeed in social interactions keep on competing over and over again for more success. Their ultimate aim is to keep on winning over more situations with conspecifics. Having said that, the fight for more success may not always be possible, for successful competitors may be confronted by conspecifics who are less competitive compared to them. Less competitiveness in successful competitors may lead them to decreased efforts if they have no one to actually compete with (Weisfeld & Wendorf, 2000). Less competitiveness may not be enough for successful competitors to demonstrate their competitive skills and could make them feel agonistically reduced in terms of competitiveness and interaction. What the cycle of success and the maladaptive cycle of failure have in common is that they prove insufficient to provide advantages to successful and failed contestants with regards to whom they compete with or feel submissive to (Masten & Coatsworth, 1995).

Failure is often attached to sadness, worthlessness, tiredness, or fatigue. It is a low mood symptom and a negative emotional precipitant associated to responses of depressive content, such as one feeling discouraged in regard to making a new start in life (Andrews & Thomson, 2009). Depressed individuals believe that failure is related to factors lying within one's state, such as that one is to blame for one's condition. They can also relate to one's conviction that one is lacking the ability to achieve a goal, and/or that one is incompetent in overcoming competitive confrontations (Sweeney, Anderson, & Bailey, 1986). Failure in reaching goals evokes low mood states where individuals disassociate themselves from efforts the outcomes of which seem unfavourable, for example one by thinking that keep trying will lead to new losses, one may abandon even the thought of trying (Harwood, Beutler, & Charvat, 2010). Low mood states, in the form of depressive experiences being elicited by failure, have been explained as adaptive because individuals submit themselves to options of withdrawing from efforts, thought as disadvantaged, so not to suffer same experiences again, such as one who does not re-submit a paper to a journal fearing it will be rejected again (Janoff-Bulman & Brickman, 1982).

Success and failure relate to social competition, not only because they are part of the evolutionary history of our ancestors, but also because they refer to issues of interpersonal struggle (Cicara, Botvinick, & Fiske, 2011). They actually characterise social competition and explain how humans get along with each other through interactions that are context and situation specific (Stephan, Burnham, & Aronson, 1979).

Men and women consider failure as closely related to depression, whereas this is not true for success (Raes, Ghesquière, & Van Gucht, 2012). Though, the lack of association between success and depression seems self-explanatory, for the more individuals succeed the less they become depressed (Miller & Norman, 1981), the association between failure and depression has been argued as might also be lacking during social competition (Pyszczynski & Greenberg, 1985). Such thesis has been suggested on the basis of socially elicited emotional responses, which present

success and failure as individual attitudes towards conflict resolution with conspecifics (Raines, 2006). Success and failure in this way are regarded as competition and cooperation means in order that confrontations to come to balance (Loch, Galunic, & Schneider, 2006). Success can be preceded or followed by competition and/or cooperation, if individuals set goals and pursue them through particular activities, such as one working hard to benefit from social appreciation (Latham, & Locke, 1991). In this way, on one hand, success may be regarded in terms of looking to reach objectives on the basis of clearly set aims, so one to be helped in the establishment of social status in the long-term (Doosje, Ellemers, & Spears, 1995); whereas, on the other, failure may be preceded or followed by competition and/or cooperation if individuals regard it as a chance to try harder for objectives been set or search for alternatives to achieve what they wish, such as one who failed to be appointed to a job and instead found the same work opportunities abroad (Moulton, 1965). In this way, failure becomes the driving force for new experiences might have not been thought of or been attempted before (Judge, Higgins, Thoresen, & Barrick, 1999).

Social competition and depression in evolutionary terms

The experience of depression in social competition contexts is a common phenomenon in most cultures (Sloman, Gilbert, & Hasey, 2003). Individuals set goals and strive for them because life enterprises are very demanding. When social competition is followed by depression, individuals may experience low mood states and lack of commitment to oriented practices, such as one not continuing to try on something on which one has failed in the past (Emmons & King, 1988).

For many years now, it has been argued that depression affects individuals who fail for they have pursued to achieve goals and they didn't meet them (Bibring, 1953; Davis, 1970). Depressive states in social competition are examined in terms of contestations and conflicts in social situations, such as between colleagues one of whom may get a pay rise and the other not (Nesse, 2000). In most people in modern societies, endeavours in the social competition domain do not always go as initially planned. More likely, individuals involved in social contests may feel disturbed, may lack in decision-making, or may induce themselves to escaping from successful competitors, so as to re-plan and re-assess the problem in hand (Mashman, 1997).

Such psychological behaviour following failed competition was found to be common among women (Brown, Harris, & Hepworth, 1995), for they seem to submit themselves more to flight choices compared to men (Seligman, 1975). This failure-to-yield experience proves that during social competition individuals have not only failed, but that their failure threatens the status might they have in society where agonistic interactions are tense, such as talking in the presence of others or others to asking questions and the individual to feel is unable to answer (Gut, 1989). Unsuccessful competition during social interaction mediates changes in patterns of behaviour related to depressive attitudes, such as one fearing to go to an interview because in the past one has been denied a post (Keller & Nesse, 2006). Social contests could be depression-precipitated for they refer to submission to or withdrawal from challenging situations such as avoiding going to work because one's manager is not gentle (Beck, Rush, Shaw, & Emery, 1979).

What has been discussed so far regarding the relationship between social competition and depression shows that:

- a. Individuals suffer depressive experiences because they have failed to deal with adaptive challenges.
- b. Individuals, having failed during competitive contests, adopt depressive states of low mood and escapism because they feel unrelieved from unbearable situations (Gilbert et al., 2004).

- c. Depression is the outcome deriving from goals individuals consider difficult to achieve (Klinger, 1975).

Social rank theory can again be outlined as an explanation for depression via social competition. According to this theory, individuals who competed and failed demonstrate subordination in human interrelationships, especially towards those who have once been won by, such as a member of staff feeling undervalued compared to other colleagues (Gilbert, 1992). Subordinate behaviours following failure could easily become excessive even if individuals know this is de-escalation in need. Subordination, explains that individuals feel unable to cope with everyday challenges, be it workload, frustration in the working environment, or deadlines to be met (Allan & Gilbert, 1997). If challenges could not be overcome individuals may experience low social status and withdraw from any confrontation. In such a sense, even if subordination is involuntary, they may show signs of helplessness and hopelessness so that to elicit help from others, or to gain back some of the status they have lost (Gilbert, 2006). Failed contestants may not only feel unable to overcome losses but they may also feel incapable of dealing with the reality of failure as an impending experience, and as such they may consider that even small efforts can lead to further unendurable failure (Sloman, Price, Gilbert, & Gardner, 1994).

Failed contestants assume incapacity in the form of:

1. Feeling useless and negative about themselves
2. Changing their view of the world and believing they live in a hostile environment, which is careless of their needs
3. Thinking that their future will worsen with no changes for the better (Beck, 1967).

All these distortions could be compatible with a de-escalating state of mind, which enhances pessimism or flight and submission, rather than resistance or engagement with opponents or situations, such as one considering that any effort undertaken will be in vain. Distortions may also introduce reduced levels of self-esteem and loss of interest in meeting goals, such as one being unwilling to try new initiatives (Klinger, 1975). Those who behave in this way develop a depressive framework of attitudes through which they:

1. Avoid encounters with others
2. Feel incompetent to face challenges
3. Think of derivatives of efforts as leading to undesirable outcomes (Abramson, Seligman, & Teasdale, 1978).

Research has shown that decreased self-esteem is associated to feelings of hopelessness (Drake, Price, & Drake, 1996) and diminished expectations of personal success, such as in the case of an individual who does not believe that changes in life may also take place for the better (Coopersmith, 1967). Moreover, self-esteem is overly correlated to a person's performance in socially valued domains (Harter & Marold, 1991), such as one's performance being judged by the outcome of one's success or failure (DePaulo, Brown, Ishii, & Fisher, 1981). Furthermore, depression could be closely associated to social neglect, rejection, and exclusion from an environment where one has experienced one is not there accepted (Maccoby & Martin, 1983). Everyday depressions come out of losses during relationships such as lacking the ability to establish communication with one another, or from personal beliefs, such as when one feels devalued by people one appreciates most (Monroe, Rohde, Seeley, & Lewinsohn, 1999).

Depressive syndromes, such as low mood, sadness, or indecisiveness constitute experiences in most of the global population. Low mood states are depressive states and appear to be universal

phenomena (Nesse, 2000). They are regarded as natural selection by-products enhancing self-protection needs and are context and situation contingent, for they result from competitive interactions individuals feel, or have felt, threatened by (Baldwin & Holmes, 1987). It is argued that social competition struggles have been adaptive challenges in ancestral environments, meaning that low mood states were selected for in order our ancestors to have the chance to overcome agonistic contests (Nesse, 2000). Depressive states are passive withdrawal states and in an agonistic forum may have been designed for communication purposes in order to elicit help from others towards accumulation of resources and in-group coalitions (Watson & Andrews, 2008).

However, if depression is a manic experience and affects only a minority in a population, it means it has more to do with a defect. Bipolar depression - as it is otherwise called - represents our ancestors' effort towards an adaptation, which had failed, probably because assistance from conspecifics hadn't been elicited (Klerman, 1974). Low mood states, according to the evolutionary paradigm, explain that depressive attitudes demonstrate an individual's tendency to be helped and not abandoned in a given environment; the latter, (i.e. bipolar states) that rejection of such help betrays lack of adaptability in a given milieu (Price, 1967; Price, Sloman, Gardner, Gilbert, & Rohde, 1994).

The social competition hypothesis for depression assumes that competitive environments cultivate inferiority, submissive proneness to the will of others, reduced capability in confronting situations, as well as decreased ability in the allocation of social support (Price, 1972; Gilbert, 2000). Successful competitors during agonistic interactions assume escalating strategies to enhance possibility of more success and the intimidation of the opponent (Price, 2000). Failed competitors assume de-escalation towards yielding behaviour of subordination to winning contestants. Failed contestants, by assuming such yielding behaviour, withdraw from fight in order to minimise risks of further intimidation, and/or the escalating aggressiveness of the attacker (Price, 1984). In such a yielding behaviour, depression can be examined as an evolved state of de-escalating experiences where individuals involuntarily accept defeat in agonistic tensions so that to adapt themselves to reduced levels of social ranking (Price, Sloman, Gardner, Gilbert, & Rohde, 1994). Depression as a de-escalation strategy explains that individuals living in hostile contexts choose to withdraw from competitive tug-of-wars in an effort to survive in unfriendly environments (Keller & Nesse, 2006). Recipients of depression experience unreachable personal endeavours, adverse interpersonal relationships, reduced sense of control, goal-related inhibitions, as well as the fact that they have lost to winning rivals (Wolpert, 2008).

Rationale and hypothesis of the study

Success and failure are considered by-products of the social competition domain. Individuals are greatly influenced by the outcome of social competition, the effect of which regulates and/or deregulates their lives and everyday experiences and may lead to the state of depression. As to the literature presented and discussed with respect to the effect of failed competition during social interaction, it will be hypothesised that failure is positively correlated to depression, whereas the opposite is true for success.

Method

Participants

Participants were 53 secondary school teachers from a town in Northern Greece. All had graduate and/or postgraduate degrees in addition to their main teaching qualification. They were randomly selected from 10 different schools; 45 out of 53 were A Level teachers recruited through a formal letter posted to their Schools' Headmasters. Twenty-seven of them were men and twenty-six women. Their mean age was 46 years (SD: 3.6). Random sampling took place during July 2011. Informed consent and questionnaires were supplied to participants by mid August 2011 and the

study was conducted and completed by the end of August 2011. Participants completed questionnaires at their schools in the presence of the experimenter. Questionnaires were handed back to the experimenter after completion.

Design

A within-participant correlation design was employed in this study. The dependent variable was the scores participants rated on both the Social Competition for Success and Failure and Beck's Depression Inventories (BDI-II).

Materials

A self-devised questionnaire titled '*A Social Competition Inventory for Success and Failure*' composed of 20 statements (Appendix B) ranging from -3 to +3, and the '*Beck-Depression Inventory (BDI)*', version II (Beck, Steer, & Brown, 1996), composed of 21 items each of which had four response options to choose from ranging between 0 and 3 – except of the items 16 and 18, the 1, 2, 3 response options of which were divided into two parts each (Appendix C).

Procedure

In order for participants to take part in the study, they have signed informed consent letters (Appendix A). Through informed consent, respondents were explained that throughout the study anonymity and confidentiality would be kept. No psychological harm would be involved. They would not be deceived as to the guidelines in scoring the items, or the purpose of the study. Should they wish to withdraw from the study, they should feel free to do so at any time.

The consent letter informed participants about the purpose of the study. In this letter was stated that the present study would look for an association between success, failure and depressive attitude. Respondents were informed that they should rate the items to the best of their understanding. All statements were hypothetical and referred to everyday situations and events. There were no right or wrong responses with regards to scores. Should participants have any question they could ask the experimenter. After completion of the study and analysis of data all inventories were destroyed. At the end of the experiment, participants were debriefed and the experimenter answered questions relevant to the study.

The items in the '*Social Competition Inventory for Success and Failure*' address assumed everyday scenarios. These scenarios were introduced in the form of statements referring to hypothetical events, such as *I asked for a loan but my application was rejected*. In the form of an individual's competition to others, such as *I applied for a job but someone else got it*. In the form of others' reaction to what an individual does, such as *I talked in the presence of others but they didn't pay attention to me*. Rationale for the composition of this inventory was success and failure issues of competition to be examined in terms of interrelationships, in terms of personal endeavours in the social milieu; in terms of the impact one's actions may have on others. Items with odd numbers referred to statements for success, such as *I applied for a reduced rate at my council tax and my application was successful*. Items with even numbers referred to statements of failure, such as *I talked in the presence of others but they didn't pay attention to me*, etc. Through this inventory, participants were asked to score marks, which either negatively or positively underlined understandings of success and failure in a competitive context. Items in this inventory were rated on Likert-Scales ranging from -3 to 3: -3, -2, -1 (disagree); 1, 2, 3 (agree).

Prior to conducting the main study, I conducted a pilot study with 73 participants who were teachers as well. Thirty-three of them were men and forty were women. Their mean age was 42 years. Through this pilot study it was gathered information as to the reliability of the items chosen for the *Social Competition Inventory for Success and Failure*. Across all items of the self-devised inventory Cronbach's α had shown an internal consistency of $\alpha = .72$. The removal of individual

items did not increase Cronbach's alpha. Thus, it was decided to retain all items in the final questionnaire (Reynaldo & Santos, 1999; Tarakol & Dennick, 2011; Kilem, 2012).

The items of the 'Beck-Depression Inventory' referred to personal understandings of depressive attitudes covering issues from *sadness* to *loss of interest in sex*. Some examples from these 21 headings are: *Sadness* (0=*I do not feel sad*; 1=*I feel sad much of the time*; 2=*I am sad all the time*; 3=*I am so sad or unhappy that I can't stand it*), or *pessimism* (0=*I am not discouraged about my future*; 1=*I feel more discouraged about my future than I used to be*; 2=*I do not expect things to work out for me*; 3=*I feel my future is hopeless and will only get worse*). Beck's inventory seeks to see whether depressive attitude can influence, or be influenced by, the cognitive state of individuals who withdraw from behaviours and/or actions related to everyday life.

Counterbalancing was also introduced in this study. 27 of the participants, men and women, were asked to rate first the items of the *Social Competition Inventory for Success and Failure* and then the items of the *Beck-Depression Inventory*. 26 of the participants, males and females, were asked to score first the statements of the *Beck-Depression Inventory* and then the statements of the *Social Competition Inventory for Success and Failure*.

After informed consent forms were collected, participants were told that they would need no more than 15 minutes to rate the items. After completion of the study and collection of both inventories the experimenter thanked all respondents for their participation in the study and data were inserted to the SPSS for statistical analysis.

Results

Descriptive Statistics

Table 1 summarises mean ratings, standard deviations and minimum and maximum scores of the Social Competition Inventory items for Success and Failure and the BDI.

Table 1: Mean ratings, standard deviations and minimum and maximum scores of the Social Competition Inventory items for Success and Failure and the BDI.

	Success	Failure	Depression
Mean	6.7	-.67	17.9
SD	17	16	9
Minimum	-27	-30	.0
Maximum	30	29	38

n=53

Overall, in Table 1, scores are positive for success items (6.7), negative for failure items (-.67) and positive for depression items (17.9) across all participants. A mean score of 6.7 may mean that on average success is divided equally among all participants of the sample. A mean score of -.67 may mean that on average failure is closer to 0 and that participants did not choose to give it a high rating. A mean rating of 17.9 may mean a borderline clinical depression in the sample, according to the BDI scoring system. Standard deviations are 17 for success, 16 for failure and 9 for depression. The range for all three variables is 8.6. Also, in looking at lowest and highest scores in addition to each mean (i.e. -27 and 30 for success, -30 and 29 for failure and .0 and 38 for depression) it can be argued that the conditions for finding significant correlations are met.

Correlations

Ratings of success and failure items in the Social Competition Inventory with BDI scores across gender

Correlations between the ratings of success and failure items in the Social Competition Inventory with BDI scores across men and women are not significant, i.e. $r = .21$, and $r = .16$ respectively.

In Table 2 there are noted correlations separately for each gender

Table 2: Correlations and significance levels between success, failure and depression separately for men and women

	Success (Pearson's r)	P	Failure (Pearson's r)	P
Men	.12	.55	.03	.87
Women	.17	.42	.25	.22

Table 2 shows that no significant correlation between success and depression ($r = -.12$, $p = .55$) and between failure and depression ($r = .03$, $p = .87$) were found for men. The positive correlation between success items in Social competition Inventory and depression for women also failed to be significant, $r = .17$, $p = .42$. The positive correlation between failure items in the Social Competition Inventory and depression for women also failed to be significant, $r = .25$, $p = .22$.

From the results obtained, success and failure show a positive and non-significant correlation with depression in women. In men, non-significant correlations for both success and failure to depression were also found. Overall, contrary to the hypothesis, the relationship of success and failure to depression was found non-significant for both men and women.

Correlations for success and failure items with universal applicability

Items from the Social Competition Inventory with universal applicability which were correlated were the success statements 3 (I applied for a reduced rate at my council tax and my application was successful), 7 (Though competition was high I enrolled my child at the preferred school), 13 (I have graduated from University with distinction) and 19 (I started a new job and I have many customers), and the failure statements 2 (I applied for a job but someone else got it), 4 (I asked for a loan but my application was rejected), 8 (I corrected a mistake I have done before colleagues knew about it), 10 (I have asked for a pay rise in my job and I was unsuccessful), 14 (I have asked for promotion and somebody else got it instead), 16 (I have done a presentation in my work and colleagues asked me questions I couldn't answer), 18 (I asked my landlord about problems of the house that I rent, but he/she did not reply back) and 20 (When I returned from holidays my car was broken, and I didn't tell my friends about it).

The success and failure items of universal applicability I have chosen to correlate, is because I think they refer to universal issues of concern that could apply to individuals. Issues such as promotion, preference of school, good marks in exams, keeping up a job, paying less in relation to taxes, asking for a loan, talking before others, asking for problems to be solved from salient others, and dealing with difficulties without telling others about them, refer to my opinion to affairs people could often experience.

Correlations of the success and failure items of universal applicability across gender Success and failure universal applicability items for men and women have shown no significant correlations, i.e. $r = .038$ and $r = -.124$

Correlations of the universal applicability success and failure items separately for men and women.

Correlations between success and failure universal applicability items, separately for men, were found not significant, i.e. $r = -.232$ and $r = -.045$

Separately for women, correlations for success and failure universal applicability items were again found not significant, i.e. $r = .222$ and $r = .247$

Discussion

General discussion on the findings of the study

The findings of this study do not support the hypothesis tested, for success and failure were not found associated to depression and correlations were not significant. Findings have shown that correlations between success and failure to depression across gender and separately for men and women were also found not significant. In addition to each mean, can be argued that the conditions for finding significant correlations are met for the lowest and highest scores of success, failure and the BDI. According to BDI ratings, participants in this study have scored depressive symptoms in a borderline manner. Finally, correlations of the universal applicability items for success and failure of the Social Competition Inventory across gender as well as separately for men and women were also found not significant.

Findings across gender and separately for men and women

The fact that the findings of the present research, in both men and women, do not show significant correlations, could indicate that men and women concentrate more on social competition if they have lost to salient others, whereas they concentrate less if they have been successful (Pyszczynski & Greenberg, 1986). The former could mean that individuals are critical of their failures; the latter, they are confident they have the capacity to win over others (Stephan, Presser, Kennedy, & Aronson, 1978).

Men and women cooperate with others in order to work and act together. That may indicate they are focused not on what could depress them so to give up, but how to deal with the issue of failure as a derivative of actions from which to refrain, such as one who though had failed in the driving test goes on to sit the test again after having learned what the traffic signs are all about (Balliet, Li, Macfarlan, & Van Vugt, 2011). Men and women during social competition are very active for they wish to increase chances of success through their interactions. They focus on goal-oriented choices able to help them win in order that chances of failure to be minimised, such as a student concentrating not on the degree he or she will receive in three years but on how to manage reading and assignments so that to pass each and every module (Kaplan & Maehr, 2007).

Men's and women's similarities also on the non-significant association between failure and depression could also relate to the fact that men and women sometimes react in the same way to failure, which could not necessarily result in depressive attitude, such as during the hunt for jobs, where gender restrictions are no longer an issue (Arino & de la Torre, 1998). A possible evolutionary explanation could be that men and women nowadays face the same adaptive challenges in competitive milieus, compared to challenges our ancestors faced in the EEA, where men were breadwinners and women child-bearers and household keepers, whereas today both men and women work outside home as well as master the household (Browne, 1998).

Findings regarding correlations between success and failure universal applicability items

The findings from the universal applicability success and failure items of the Social Competition Inventory I have selected to correlate were also found not significant. Not significant correlations for success and failure items were found across gender as well as separately for men and women. It has been argued (Hastorf, Schneider, & Polefka, 1970; Potts, 1998; Allen & Badcock, 2003) that no significant associations between success and failure could indicate the context agonistic interactions took place in the EEA. That may mean that men and women in the EEA may have considered success and failure as performance outcomes of survival during social competition struggles related either to one's assumed proficiency when performing at a particular task, or to the intensity of the interaction, such as how long does it last and what are the benefits and costs for the individual, or to the agonistic capability of the rival to whom one is in contest with (Gordon, Welch, Offringa, & Katz, 2000; Aritzeta & Balluerka, 2006). In this way, success and failure could be explained as social competition frameworks selected not only for problem-solving issues, but also as processing factors to adaptive challenges faced by our ancestors during contest consummation needs (Deutsch, 1949; Johnson, Johnson, & Maruyama, 1983).

Links between introduction and discussion

Depression and lowered perceptions of success in social competition

Depression may also lead to lowered perceptions of success in social competition. One explanation discussed in the introduction was that failed contestants could exhibit subordination to individuals they have lost a contest to (Price & Gardner, 1995). Competitive struggles may be part of, or result from conflicting interpersonal relationships, such as one who earns less money compared to someone who earns more. Lowered perceptions of success during social competition may be triggered by such conflicting interpersonal relationships whereby depression could be explained as serving the cause of loss during competitive interactions (Bowlby, 1973; Hollon & Kendall, 1990). In an evolutionary context, depression may lead to lowered perceptions of success during social competition if such condition comes as an adaptive reaction being selected for due to one's interpersonal need to be related to others even though one has failed a contest with them (Birtchnell, 1993). According to the socioeconomic status theory (SES) (Pearlin, 1989) depression may lead to lowered perceptions of success in social competition due to adversities fostered between conspecifics, which could influence one's well-being, one's choices in life, as well as one's perceptions that battling for success in contests is costly or of no worth (Thoits, 1995; Miech, Caspi, Moffitt, Wright, & Silva, 1998).

It has been argued that the association between depression and reduced perceptions of success may increase through adulthood (Rosenberg & Pearlin, 1978). The main reason is claimed to be competitors have faced many failures in life, and that made them doubtful with regards to positive outcomes in future interactions, such as an individual who thinks that having failed an interview similar failures will follow after that (Krohne, Pieper, Knoll, & Breimer, 2002). Another reason could be that competitors have experienced great exposure to socially-based stressors, such as collecting money to pay debts, which enhanced depressive elements in their behaviour and led to lowered perceptions of success, such as one who believes one will be unable to find the sums to pay one's debtors (Chaplin, Wadworth, & Smith, 2009).

Other researchers have considered that the increase of the association between depression and lowered perceptions of success through adulthood depends on the following three adaptive challenges: (1) that social stressors during social competition have been found to correlate positively to depressive elements, such as one being unable to care for one's own family (Turner, Wheaton, & Lloyd, 1995); (2) that major stressors, such as divorce, induce and further depressive experiences and therefore reduced levels of personal success in the future (Carr, 1997); (3) that an individual's position in social hierarchy could be regarded as less important compared to a rival

who ascends and elevates. With such adaptive challenges an individual may become depressive, which in turn could escalate minimised perceptions of success to one's personal life (Jackman & Jackman, 1983). What the literature argues for the relationship between depression and lowered perceptions of success during social competition is that feelings of depression need first to have been associated with failure during adaptive challenges, or failure to have been a painful experience in the past during one's agonistic contests over resources, hence the minimised perceptions about success which inevitably follow as beliefs one interprets are stable and unchangeable (Neugarten, 1968). What is further argued is that depression as unhealthy psychological functioning may also have been dependent on acute experiences of failure after contact with salient others, from whom help hasn't been elicited to the result one's perceptions of success to appear reduced (Turner & Lloyd, 1995).

Maladaptiveness of success and failure in evolutionary terms

Social competition is costly for contesters (Bird & Smith, 2005). Though competition has been a way forward to progress for our ancestors, it has also been an antecedent of conflict between them following agonistic interactions (Blanchard, Litvin, Pentkowski, & Blanchard, 2009). In evolutionary terms, social competition could also be manifest in social comparison terms, whereby humans reciprocate and exchange favours in terms of costs and benefits (Gilbert, Price, & Allan, 1995). When social competition introduces conflicting behaviours between individuals, success and failure prove maladaptive in that adaptive problems stay unresolved, such as in the case of resources accumulation, which many times in human history has been the apple of discord between people and communities alike (Higginson, Mansell, & Wood, 2011).

Success and failure may also prove maladaptive when issues of conditional acceptance take place during social competition contests (Stoeber, Kempe, & Keogh, 2008). By conditional acceptance it is meant that individuals who are successful during social competition are presented with heightened self-esteem for they strive to satisfy others' expectations of themselves, such as one who behaves the way others like him/her to behave (Solomon, 2006). On the other hand, individuals who fail a social competition contest fail also conditional acceptance expectations of others. Failed contestants who cannot fulfil others' expectations, consider environment as hostile and they yield to submissiveness and accept defeat in order that to survive and adapt in such an environment (Sloman, & Gilbert, 2000). Success and failure may also be maladaptive because the race for resources individuals struggle for is limited, time-consuming and uncertain in the long-term (Back, 2007). That means that the struggle for resources can make individuals hurriedly aiming towards the accumulation of as much as they can (Leacock, 1985). In such a sense, success and failure could prove the yardstick of competitive strategies, in that, individuals in order to activate themselves to reach the most of their objectives, they either become completely careless for the needs of others (success), or they become humble elicitors of others' assistance to their needs (failure) (Stephan, Burnam, & Aronson, 1979).

Maladaptiveness of failure could also be explained as a precursor of negative consequences to oneself, in terms of self-degradation, inability to communicate, or suicidal thoughts, to the effect that fitness maximisation needs or reproductive efforts to seem difficult to be met (Millon, Grossman, Millon, Meagher, & Ramnath, 2000). Failure could also be maladaptive, for individuals misinterpret the outcomes of incidents in their lives, such as one thinking one is worthless because one was fired at work.

Maladaptiveness of depressive attitude in evolutionary terms

In depressive attitude, maladaptiveness can be the case, if individuals in need, fail to draw help from salient others. If help cannot be elicited, individuals may fall into severe symptoms of depression, which means they will not be in position to control the situation they experience, or to seek protection in order to feel safe (Klinger, 1975).

Depressive attitude in evolutionary terms can also be explained as a dysregulation deriving from maladaptive emotional responses to an event, such as worthlessness and self-rejection, which may lead an individual to experiences of hopelessness (Kanter, Busch, Weeks, & Landes, 2008). In evolutionary theory, adaptive challenges can be overcome when solutions to problems can be selected for. Such solutions then operate as positive reinforcers, capacitating the individual to use them in order that adaptive problems to be managed (Iwata, 1987). Depressives who could find such positive reinforcers are able to adapt and survive in hostile environments. By positive reinforcers in this context we mean issues of submissiveness, withdrawal from contests, because rivals are better competitors, acceptance of losing rank, or coming to terms with a social situation that cannot be fought back (Gilbert, 1992). In this way, depressive behaviour could be regarded as having been selected for, in order to enable individuals to cope with problems in hand (Price, 1998).

On the contrary, in cases of chronic loss of mood or self-esteem individuals may behave quite insensitively in regard to the help or empathy from others (Coyne, 1976). That means that irrespective of the help elicited from conspecifics, depressives still feel the same, still feel hopeless, still feel they are unable to make good use of any help offered to them (Gotlib & Lee, 1989). In such a sense, depression proves maladaptive generating unbearable psychological experiences that do not allow the individual to function properly (Barnett & Gotlib, 1988). As a result of this, social support may either be minimised, or not offered at all, thereby putting at risk one's survival efforts (Joiner & Metalsky, 2001). If depressive attitude is experienced in this way it means it has not evolved, nor has it derived from contingencies of survival that assist an individual to carry on (Hayes, Strosahl, & Wilson, 1999).

Strengths and limitations to the present research

Strengths to the present study

One main strength in this study is that failure may not be a negative outcome of social competition, but an experience which individuals can learn from so that not to fall into depression. In such a context, failure can be explained as a chance for individuals to re-consider competitive strategies and re-attempt efforts towards successful outcomes. If failure could be considered a positive element for human behaviour, it may mean that depressive attitude may not necessarily associate to it. The reason could be that depressive attitude might be the outcome of unhelpful beliefs, which by being imposed on an individual's mental life produces appraisals of negativity and self-abandonment. By that, I mean that unhelpful beliefs could operate as a precursor to depressive attitude states rather than the aspect of failure, for they are associated with lack of motivation and lack of acceptance and tolerance before outcomes of competition.

Another strength of this study could be that failure may evolutionarily connect to depression as a solution to adaptive challenges people face in hostile environments. Failure and depression could have been selected for so that to help humans tolerate agonistic interactions or withstand social competition processes. Humans, by tolerating agonistic interactions, could be able to withdraw from symptoms, such as low mood or low self-esteem for self-protection purposes. Withdrawal from symptoms does not mean that depression may not be experienced, but that both failure and depression may overlap one another in a sense of re-consideration of past attitudes and exploration of new and more constructive ones.

Limitations to the present study

One main limitation in this study is that the planned sample for the main study should have been drawn from the same population as in the pilot study, i.e. distributing both inventories to teachers in London. The reason lies to unforeseen circumstances beyond my control, such as being denied access on short notice, which forced me to search for a new sample of teacher-participants.

Given time constraints, regarding collecting data for my study, I have decided to distribute the BDI and the self-devised inventory of social competition for success and failure among Greek teachers.

The Greek sample appeared to be appropriate due to the current financial situation in the country, in terms not only of keeping to a job or looking for a new one, but also with regards to salary reductions, changes to the tax system, additional taxes from the Revenue, etc. So, statements from the self-devised inventory, such as *'I applied for a job but someone else got it'*, *'I applied for a reduced rate at my council tax and my application was successful'*, *'I asked for a loan but my application was rejected'*, *'I have asked for a pay rise in my job and I was unsuccessful'*, *'I have asked for promotion and somebody else got it instead'*, *'I won the lottery and paid my debts'*, or *'I started a new job and I have many customers'*, seemed to me suitable for this sample of participants. BDI statements also seemed to me as appropriate in line to personal difficulties should one experience due to that situation in the country. However, according to the findings of this study, that decision proved not to be the right one.

Nevertheless, I do acknowledge that some of the items might have been more suitable for the initially planned sample, such as the statements 2, 3, 6, 7, 8, 12, 13, 16, or 17, for teachers at British schools are required to deliver talks – it is part of the curriculum – and present it to colleagues or other parties (e. g. Governors, the Council). One other reason was also due to the fact that according to the pilot study no problems have been noted as to the appropriateness of the items of the self-devised inventory per se.

Another limitation in this study is that respondents were all of the same profession. Participants were teachers with same issues to face at work as well as expectations to meet. If in a professional group expectations are similar, that might mean that the way they competitively interact with each other could as well be the same with regards to the interplay between success, failure and depression.

One final limitation is that participants were asked to rate both inventories at a time when schools were about to close for summer. That may have affected participants' attention to score the items. What I argue is that if success and failure items were to be presented to participants during a busy time of the year, scores might have been different than the ones collected in the study. This could be possible for two reasons: First, participants would already be in a state of competition during the school year with whatever could that be associated to, such as exams, classes, revision, parent evenings, personal reports, staff meetings, or individual meetings with the headmaster; and second, in presenting the inventories during a busy time of year, could probably provide more clear success and failure scores to reflect personal appraisals on themes such as promotion, salary rise, lack of communication with the Head, problems with colleagues, etc.

Suggestions to a future replication of the study

Participants could be recruited from other parts of Greece as well, not only from a particular town. This is an important aspect to be considered. Towns, especially towns like the one respondents came from, do not always refer to same social competition issues, something which could influence participants' views about success, failure and depression.

The number of participants could be extended in order that a larger sample to be used. A larger sample could provide a better understanding on the topics of success, failure, and depression. The reason that a larger sample of participants could be more applicable in such a study could be that success, failure and depression items could probably exhibit a distribution of ratings able to support not only the hypothesis tested, but also the broadening of discussion to aspects of social competition haven't been considered in the present study.

As to the self-devised Social Competition Inventory for Success and Failure, which was administered to participants, that could be further improved in terms of the composition of the items, i.e. considering the context of success and failure statements in line with other ideas, such as shopping, relatives, intimate relationships, etc. Everyday themes, such as the above, might provide a better consideration on success, failure, and depression in terms of social competition. Ideas, which could also be incorporated, could refer to defeat and vulnerability issues, so that hopelessness aspects to be taken into account as well. Examples in such a context could include panic, inability to function before unforeseen circumstances, or incapability to find a solution, or to think clearly before a dire incident. Another change could be the use of the BDI, which could be replaced by other inventories, such as the Patient Health Questionnaire/PHQ-9 (Kroenke & Spitzer, 2002), or the Beck Hopelessness Scale/BHS (Beck, 1974), for they consist of more specific statements with respect to depressive elements of behaviour.

Conclusion

In this study, there has been examined the relationship between success and failure to depression. In the literature presented it was discussed that success, and in particular failure, share common grounds in the understanding of depression in social competition terms. Success and failure are outcomes of social competition and depression an evoked experience that results from agonistic interactions. The social competition hypothesis and the social rank model are two of the main evolutionary approaches to the association between success, failure, and depression in social competition terms.

For the purpose of this study there was composed and introduced a self-devised social competition inventory for success and failure which before being distributed to participants was pilot-studied so that the experimenter to see whether the items in this inventory could be used in the present research. This self-devised inventory consisted of 20 items consisting of success and failure hypothetical statements in relation to the individual, in relation to an individual's expectations of others, in relation to others' reaction about what an individual does. The second questionnaire used in this study was the Beck's Depression Inventory (BDI-II), which consisted of 21 items referring to depressive behaviour.

In the present research, the hypothesis that was tested was whether a positive correlation between failure and depression could be found. According to the findings of the study, the hypothesis was not supported, for failure, as well as success, were not found in significant correlation to depression. Across gender and separately for men and women, correlations for success, failure and depression were also found not significant. Finally, no significant correlations were also found from the analysis of the universal applicability items for success and failure, again across gender and separately for men and women. The findings of the study and links between introduction and discussion were also discussed, as well as its strengths, limitations and how could it be improved in a future replication.

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Appendix A

Invitation Letter

Dear Participant,

The purpose of the present study is to look at the association between success and failure to depression. You are provided with two inventories: one called *The Social Competition Inventory for Success and Failure* and the other *The Beck's Depression Inventory, version II*. You are asked to rate all items of both inventories to the best of your knowledge. Items are hypothetical statements to everyday situations and events and there are no right or wrong answers. Should you have any question during the completion of the inventories please free to address is to me. After completion of scoring the items of both inventories you will be debriefed should any question was left unanswered. After the rating of both questionnaires these will be collected and their data will be inserted into the SPSS (Statistical Programme for the Social Sciences) for analysis. After completing the analysis of data all inventories will be destroyed.

Informed Consent

Throughout the study anonymity and confidentiality will be kept. No psychological harm is involved whatsoever in scoring the inventories. Guidelines and the purpose of the study is as above and you will not be deceived. Should you wish to withdraw from the study, please feel free to do so at any time. If you agree with what you have read please sign below.

Thank you very much for taking part in my study

Dr George Varvatsoulas

Appendix B

A Social Competition Inventory for Success and Failure

NOTE TO PARTICIPANT: YOU ARE KINDLY ASKED TO RATE ALL STATEMENTS OF THIS INVENTORY

Gender:

Age:

1. I submitted a manuscript to a journal which got published straight away

Disagree

Agree

	-3	-2	-1	+1	+2	+3	
2. I applied for a job but someone else got it							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
3. I applied for a reduced rate at my council tax and my application was successful							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
4. I asked for a loan but my application was rejected							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
5. I bought an expensive car at a cheaper price							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
6. I talked in the presence of others but they didn't pay attention to me							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
7. Though competition was high I enrolled my child at the preferred school							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
8. I corrected a mistake I have done before colleagues knew about it							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
9. I helped the police capture a thief							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
10. I have asked for a pay rise in my job and I was unsuccessful							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	
11. I swam a great deal of distance in a race, and I got the first prize							
Disagree							Agree
	-3	-2	-1	+1	+2	+3	

12. I organised a talk and none of my colleagues came

Disagree

Agree

-3 -2 -1 +1 +2 +3

13. I have graduated from University with distinction

Disagree

Agree

-3 -2 -1 +1 +2 +3

14. I have asked for promotion and somebody else got it instead

Disagree

Agree

-3 -2 -1 +1 +2 +3

15. I won the lottery and paid my debts

Disagree

Agree

-3 -2 -1 +1 +2 +3

16. I have done a presentation in my work and colleagues asked me questions I couldn't answer

Disagree

Agree

-3 -2 -1 +1 +2 +3

17. I was appointed Head of Staff at my work because I raised money for the Comic Relief

Disagree

Agree

-3 -2 -1 +1 +2 +3

18. I asked my landlord about problems of the house that I rent, but he/she did not reply back

Disagree

Agree

-3 -2 -1 +1 +2 +3

19. I started a new job and I have many customers

Disagree

Agree

-3 -2 -1 +1 +2 +3

20. When I returned from holidays my car was broken, and I didn't tell my friends about it

Disagree

Agree

-3 -2 -1 +1 +2 +3

Appendix C

Beck Depression Inventory (BDI-II)

<p>1. Sadness</p> <p>0 I do not feel sad. 1 I feel sad much of the time. 2 I am sad all the time. 3 I am so sad or unhappy that I can't stand it.</p> <p>2. Pessimism</p> <p>0 I am not discouraged about my future. 1 I feel more discouraged about my future than I used to be. 2 I do not expect things to work out for me. 3 I feel my future is hopeless and will only get worse.</p> <p>3. Past Failure</p> <p>0 I do not feel like a failure. 1 I have failed more than I should have. 2 As I look back, I see a lot of failures. 3 I feel I am a total failure as a person.</p> <p>4. Loss of Pleasure</p> <p>0 I get as much pleasure as I ever did from the things I enjoy. 1 I don't enjoy things as much as I used to. 2 I get very little pleasure from the things I used to enjoy. 3 I can't get any pleasure from the things I used to enjoy.</p> <p>5. Guilty Feelings</p> <p>0 I don't feel particularly guilty. 1 I feel guilty over many things I have done or should have done. 2 I feel quite guilty most of the time. 3 I feel guilty all of the time.</p>	<p>6. Punishment Feelings</p> <p>0 I don't feel I am being punished. 1 I feel I may be punished. 2 I expect to be punished. 3 I feel I am being punished.</p> <p>7. Self-Dislike</p> <p>0 I feel the same about myself as ever. 1 I have lost confidence in myself. 2 I am disappointed in myself. 3 I dislike myself.</p> <p>8. Self-Criticalness</p> <p>0 I don't criticize or blame myself more than usual. 1 I am more critical of myself than I used to be. 2 I criticize myself for all of my faults. 3 I blame myself for everything bad that happens.</p> <p>9. Suicidal Thoughts or Wishes</p> <p>0 I don't have any thoughts of killing myself. 1 I have thoughts of killing myself, but I would not carry them out. 2 I would like to kill myself. 3 I would kill myself if I had the chance.</p> <p>10. Crying</p> <p>0 I don't cry anymore than I used to. 1 I cry more than I used to. 2 I cry over every little thing. 3 I feel like crying, but I can't.</p>	
<p>11. Agitation</p> <p>0 I am no more restless or wound up than usual. 1 I feel more restless or wound up than usual. 2 I am so restless or agitated that it's hard to stay still. 3 I am so restless or agitated that I have to keep moving or doing something.</p> <p>12. Loss of Interest</p> <p>0 I have not lost interest in other people or activities. 1 I am less interested in other people or things than before. 2 I have lost most of my interest in other people or things. 3 It's hard to get interested in anything.</p> <p>13. Indecisiveness</p> <p>0 I make decisions about as well as ever. 1 I find it more difficult to make decisions than usual. 2 I have much greater difficulty in making decisions than I used to. 3 I have trouble making any decisions.</p> <p>14. Worthlessness</p> <p>0 I do not feel I am worthless. 1 I don't consider myself as worthwhile and useful as I used to. 2 I feel more worthless as compared to other people. 3 I feel utterly worthless.</p> <p>15. Loss of Energy</p> <p>0 I have as much energy as ever. 1 I have less energy than I used to have. 2 I don't have enough energy to do very much. 3 I don't have enough energy to do anything.</p> <p>16. Changes in Sleeping Pattern</p> <p>0 I have not experienced any change in my sleeping pattern.</p> <p>1a I sleep somewhat more than usual. 1b I sleep somewhat less than usual. 2a I sleep a lot more than usual. 2b I sleep a lot less than usual. 3a I sleep most of the day. 3b I wake up 1-2 hours early and can't get back to sleep.</p>	<p>17. Irritability</p> <p>0 I am no more irritable than usual. 1 I am more irritable than usual. 2 I am much more irritable than usual. 3 I am irritable all the time.</p> <p>18. Changes in Appetite</p> <p>0 I have not experienced any change in my appetite.</p> <p>1a My appetite is somewhat less than usual. 1b My appetite is somewhat greater than usual. 2a My appetite is much less than before. 2b My appetite is much greater than usual. 3a I have no appetite at all. 3b I crave food all the time.</p> <p>19. Concentration Difficulty</p> <p>0 I can concentrate as well as ever. 1 I can't concentrate as well as usual. 2 It's hard to keep my mind on anything for very long. 3 I find I can't concentrate on anything.</p> <p>20. Tiredness or Fatigue</p> <p>0 I am no more tired or fatigued than usual. 1 I get more tired or fatigued more easily than usual. 2 I am too tired or fatigued to do a lot of the things I used to do. 3 I am too tired or fatigued to do most of the things I used to do.</p> <p>21. Loss of Interest in Sex</p> <p>0 I have not noticed any recent change in my interest in sex. 1 I am less interested in sex than I used to be. 2 I am much less interested in sex now. 3 I have lost interest in sex completely.</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">3458760112 ARCD E</p>