

The relationship between fear of compassion, attitudes towards  
emotional expression and subjective well-being among a community  
adult sample

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### Dedication

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## 1. Abstract

Proponents of positive psychology advocate that it is the absence of distress combined with the presence of positive functioning that is reflective of good mental health and well-being (Seligman & Csikszentmihalyi, 2014). There is consensus within the theoretical schools of well-being that the capacity to freely experience and express emotion is important to subjective well-being (Ryan & Deci, 2001; Ryff & Singer, 1998). Fear of Compassion (FoC; Gilbert et al., 2014) and Attitudes towards Emotional Expression (AEE; Joseph, 1994) are two transdiagnostic concepts related to distress and the ability to experience and express emotion in a healthy manner. The relationships between these concepts and subjective well-being were explored for the first time in a community sample of 331 adults aged between 18 and 89 who completed the AEE questionnaire (Joseph et al., 1994), FoC scales (Gilbert et al., 2014), Positive and Negative Affect Scales (Watson, Lee, & Tellegen, 1988), and Positive Functioning Inventory (PFI; Joseph & Maltby, 2014). Correlations revealed that more negative AEE and greater fears of compassion were associated with lower levels of subjective well-being. Partial correlations and multiple regressions provided evidence that FoC and AEE explain unique variance in subjective well-being. Thus, whilst both concepts relate to the processing, and expression of, emotions, they appear to act through different mechanisms. It is suggested that FoC and AEE may map on to different aspects of the Cognitive-Experiential Self-Theory (CEST; Epstein, 2003), with FoC proposed to map onto the emotional-cognitive experiential system and AEE suggested to map onto the cognitive rational system. Theoretical and clinical implications are discussed; for example, the utility of AEE and FoC to both distress and subjective well-being, and the value in conceptualising mental health on a single continuum as done by the PFI (Joseph & Maltby, 2014).

## **2. Introduction**

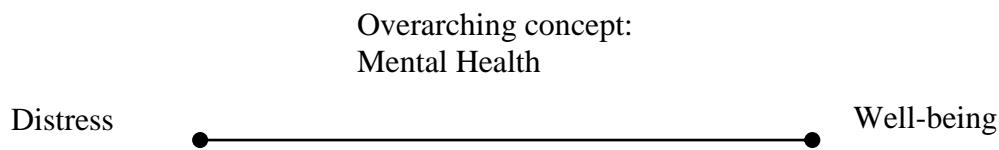
### 2.1 Overview

An argument will be presented relating to the benefits of assimilating principles of positive psychology, specifically well-being, into clinical psychology practice, a discipline whose literature is skewed towards understanding distress. Definitions of subjective and psychological well-being will be outlined with a focus on the role of emotions in both. The importance of emotional expression will be considered within a cognitive model of emotional regulation that highlights potential processes that may block emotional expression. The literature regarding two concepts thought to be implicated in the blocking of emotional experience and expression, Attitudes towards Emotional Expression (AEE) and Fear of Compassion (FoC) originating from Cognitive Behavioural Therapy and Compassion Focused Therapy respectively, is then reviewed. The research questions of whether AEE and FoC are significantly associated with subjective well-being, and if so, whether the explained variance is shared or unique, are then posed. To begin with key definitions of terms used in the thesis referring to different aspects of well-being will be presented.

### 2.2 Definitions of Terms used in this Thesis

Taken from the Oxford dictionary definitions, the term ‘mental health’ will be used to refer to an individual’s condition with regard to their psychological and emotional well-being, meaning that mental health can range from high distress to high well-being. The term well-being refers to an individual’s state of overall happiness. The term ‘distress’ refers to an individual’s state of psychological distress, and could for example signal low mood and high anxiety. To add further clarity to the terms used, figure 1 presents how the terms relate to

each other with mental health seen as an overarching continuum with distress and well-being representing its poles. Figure 1 is influenced by the proposed hierarchically organised conceptualisation of mental health, advocated by Joseph and Wood (2010). In figure 1 the top level of the hierarchical structure is presented, other levels of the proposed structure of mental health will be considered in latter parts of the thesis.



*Figure 1* Schematic of the terms used on mental health continuum taken from Joseph and Wood (2010)

### 2.3 Rationale for Focusing on Well-Being

During the course of the past decade well-being has received an increased research interest within the field of clinical psychology, perhaps exemplified best by the field of positive psychology (Seligman et al., 2005). This appears to have translated to the service level, as the past decade has seen significant change, guided largely by the health economics arguments presented most notably by Lord Layard (2006), in how mental health services are provided within communities. Lord Layard (2006) document led to the creation of Improving Access to Psychological Therapy (IAPT) services that amongst offering high intensity psychological intervention for specific conditions, also offer low-intensity well-being and psychoeducation interventions. In many counties across the UK the emergence of often separately commissioned well-being services has been observed. These services tend to allow



clients to self-refer to the service and as the title of the service suggests, the aim is to improve positive well-being.

At a governmental level, initiatives have emerged within the UK for the well-being of populations to be measured to supplement more traditional measures of Gross Domestic Product. Within the UK, since 2011 the annual population survey has included four questions aimed to measure well-being (Tinkler, 2015). The questions enquire about the amount of positive and negative affect experienced ('Overall, how happy did you feel yesterday?' and 'Overall, how anxious did you feel yesterday?') as well as life satisfaction ('Overall, how satisfied are you with life nowadays?') and sense of worth/meaning ('Overall, to what extent do you feel the things you do in your life are worthwhile?'). These are measure on a ten point Likert scale. The field of clinical psychology has a responsibility to take opportunities to engage with service level changes and government policy which encourages the reflection on well-being. One way the profession of clinical psychology can engage with the concept of well-being in a critical way is to draw insight from the positive psychology literature. Positive psychology can be defined as the study of human flourishing and optimal functioning and amongst other contributions has advocated for the single continuum approach to mental health as shown in figure 1 (Gable & Haidt, 2005; Joseph and Wood, 2010).

### 2.3.1 The Assimilation of Positive Psychology into Clinical Practice

Clinical psychology strives to provide an alternative to the diagnostic-based medical conceptualisation of distress. Amongst other contributions the profession has at times advocated for a continuum approach of mental health ranging from *functional* to *dysfunctional* whereby evidence-based psychological formulations, models and theories may

supplement or replace diagnostic classifications in order to understand dysfunction and inform recommendations and interventions (BPS, 2011, 2013). It is argued that the continuum approach enables a less stigmatising way of understanding poor mental health without *pathologising* individuals. However, like the medical model, historically clinical psychology has a disproportionate focus on the alleviation of distress as opposed to the understanding of well-being. This has been highlighted within the field of positive psychology that posit that it is the absence of distress combined with the presence of well-being that signifies good mental health (Seligman, Steen, Park, & Peterson, 2005). As such a positive psychology critique is that clinical psychology practice should attempt to both reduce distress and build well-being in therapy.

Whilst the critique of clinical psychology from positive psychology has high face validity, Joseph and Wood (2010) outlined the challenges to the assimilation and accommodation of positive psychology into current clinical psychology practice. They suggest that due to the influence of the categorical nature of the medical model, as seen in the Diagnostic and Statistical Manual of Mental Disorders fifth edition (American Psychiatric Association, 2013) and International Classification of Diseases and Related Health Problems tenth edition (World Health Organisation, 1992), concepts of well-being are often perceived to be on separate continuums; for example, high positive affect ranges from low to high rather than being conceptualised as the positive pole on a depression-well-being continuum. As such some have suggested that much of the existing literature which clinical psychology bases its practice on is problematic as there are too many assumptions and too few inferences made (Joseph & Wood, 2010; Joseph & Maltby, 2014). Assumptions such as ‘if trans-diagnostic concept A is associated with distress concept B, trans-diagnostic concept A is assumed to also be associated with well-being concept C’. To support the transition from

assumption to inference in the assimilating of principles from positive psychology into clinical psychology practice, Joseph and Maltby (2014) suggest that an awareness of the different theoretical positions taken in the design of standardised measures of mental health can help, as can the publication of research using standardised measures charting mental health on a high distress-high well-being continuum.

### 2.3.2 Summary of why Positive Psychology can Help Research on Well-being

In summary, due to calls from the positive psychology literature, commissioning of well-being services and political interest in measuring well-being, it seems important that the practice of clinical psychology gains balance in its focus on both distress and well-being. As both a problem and potential solution have been identified in the literature there is good rationale to conduct research in this area to further clinical practice in the future. To better understand what positive psychology means by the building of well-being, definitions of well-being will be discussed.

### 2.4 Well-being and how Emotion is Central to it

What constitutes well-being is both a philosophical and psychological question; a question which remains fiercely debated. Whilst a comprehensive overview of the debate is beyond the scope of this thesis, an outline of relevant concepts will be presented. The aforementioned definition of well-being, set out in a previous section, centred on an individual's state of overall happiness. The Greek philosophies of *hedonia* and *eudaimonia* set out the starting points to describing what constitutes happiness. These opposing philosophies will be outlined, after which their influence and application within the research

and practice of clinical psychology is discussed, specifically in regard to their relationship with emotion.

#### 2.4.1 The Opposing Philosophies in Well-being; *Hedonic* and *Eudaimonic* Perspectives

Hedonic philosophy proposes that well-being is the experience of pleasurable moments. Philosophers such as Aristippus, Epicurus, Bentham, Locke, and Hobbes suggest in different ways that well-being is felt through the satisfaction of desire and the experience of pleasure, carefreeness, and enjoyment, otherwise termed the pleasant life (Diener & Ryan, 2009). Desire is considered to relate to a yearning to maximise pleasure whilst minimising pain. Hedonic philosophy places the individual as the expert on what desires give pleasures to them, thus there are individual differences in how pleasure is derived from different activities, goals, needs and relationships.

The philosophy of eudaimonic well-being originates with the reasoning of Aristotle. Aristotle argued that hedonic pleasure seeking was not reflective of well-being, but instead a life lived authentically and full of virtues such as, kindness, courage, and honesty, was the pathway to well-being. It is conceded that hedonic pleasure would often be a consequence of eudaimonic well-being (Waterman, 2008). Whilst originally eudaimonic well-being would have to be judged from the outside against the various ethical and moral preferences of institutions such as religion and state, recent philosophers have advocated for a person centred model whereby individuals are the experts in living in line with their own moral code and sense of authenticity (Tiberius & Hall, 2010; Waterman, 2008). Thus, eudaimonic well-being, like hedonic well-being, can be investigated subjectively by the person themselves.

## 2.4.2 Defining Subjective Well-being and Psychological Well-being

The translation of eudaimonic and hedonic well-being into psychological research and practice has led to the coining of the terms psychological well-being (Ryff, 1989) and subjective well-being (Diener, Emmons, Larsen, & Griffin, 1985). A brief outline of both will be given alongside a justification for the focus of subjective well-being in this thesis.

### 2.4.2.1 Eudaimonic Well-being into Psychological Well-being

Ryff's (1989) model of psychological well-being has provided a means of conceptualising eudaimonic well-being. Ryff (1989) drew from Maslow's hierarchy of needs (Maslow, 2013) and Rogers theory of the fully functioning person (Rogers, 1963) to identify six characteristics of psychological well-being; self-acceptance, personal growth, relatedness, autonomy, relationships, environmental mastery, and purpose. However, a plethora of other constructs thought to be related to psychological well-being have also found support such as self-acceptance, social connectedness, mindfulness, autonomy and authenticity (Huta & Ryan, 2010; Ryan & Deci, 2000). As such, there is a lack of consensus as to what factors contribute to psychological well-being and the generalisability of the literature suffers from the term psychological well-being being operationalised and measured differently.

### 2.4.2.2 Hedonic Well-being into Subjective Well-being

The translation of hedonic well-being has been less problematic. Diener, Emmons, Larsen, and Griffin (1985) coined the term subjective well-being and Kahneman (2003) used

it as a means of translating hedonia into clinical practice and research. Subjective well-being refers to the levels of negative and positive affect experienced, built on the premise that high levels of positive affect and low levels of negative affect reflect well-being. A person is able to quantify their levels of positive and negative emotions retrospectively via their memories regarding the experience and expression of emotions, thus it can be measured subjectively. One measure of subjective well-being is the Positive and Negative Affect Schedule (PANAS). The PANAS is a widely used self-report tool which measures the frequency of positive and negative affect experienced over a specified time frame (Watson, Clark, & Tellegen, 1988). Within the PANAS, positive affect (PA) reflects the extent to which a person feels enthusiastic, active, and alert. High PA is a state of high energy, full concentration, and pleasurable engagement. In contrast, Negative Affect (NA) is a general dimension of subjective distress and unpleasurable engagement that subsumes a variety of aversive mood states, including anger, contempt, disgust, guilt, fear, and nervousness. Watson, Wiese, Vaidya, and Tellegen (1999) point out that PA and NA are predominantly defined by the activation of positively and negatively valenced affects, respectively, so that the lower ends of each dimension are typified by the absence of positive affect or negative affect. However, the PANAS does not provide a single continuum of well-being as the PA and NA items are scored separately.

The operational definition of subjective well-being also includes the sense of satisfaction with life one feels (Deci & Ryan, 2008), thus when an individual experiences low negative affect, high positive affect, and has high levels of life satisfaction they are deemed to have better mental health. Interestingly, as general life satisfaction is a cognitive evaluation based on the fit between an ideal life and actual life, subjective well-being as a concept overlaps to some degree with the newer schools of eudaimonic philosophy. A

measure of subjective well-being that includes items relating to all aspects of subjective well-being is the PFI. The PFI is a self-report measure which captures life satisfaction as well as positive and negative affect (Joseph & Maltby, 2014). It quantifies mental health on a single continuum from distress to well-being as it is an amalgamation of the short Depression-Happiness Scale (Joseph, Linley, Harwood, Lewis, & McCollam, 2004) and the short Spielberger State—Trait Anxiety Inventory (Marteau & Bekker, 1992).

#### 2.4.2.3 The Inter-correlation of Subjective and Psychological Well-being

Whilst the translation of hedonic and eudaimonic well-being into subjective and psychological well-being has been presented in an attempt to demarcate their respective territories, academic debate has led to an appreciation of the shared variance and future integration (Huta & Ryan, 2010). A study reported a .84 correlation between psychological and subjective well-being in a sample of 3,032 American adult sample aged 25 to 74 years (Keyes et al., 2002). A British research group reported similar associations in multigroup confirmatory factor analysis of psychological and subjective well-being measures with samples ranging from 285 participants to 849 participants (Linley, Maltby, Wood, Osbourne, & Hurling, 2009). Linley et al. (2009) found that all subjective and well-being variables loaded on the same factor in a one factor solution and did not vary according to age, gender and ethnicity. There is cross-cultural evidence to suggest therefore that subjective and psychological well-being are highly associated and have areas of particular overlap with other concepts. Huta and Ryan (2010) proposed that the significant shared overlap between subjective and psychological well-being concepts is that of emotion. As such, emotion and subjective well-being will be discussed in the context of potential emotion-related barriers related to subjective well-being.

### 2.4.3 The Role of Emotion in Subjective and Psychological Well-being

Ryan and Deci (2001) outlined the relation of emotions and well-being. In terms of subjective well-being, it is proposed that people experience affect on an ongoing basis, and that this affect is valenced and easily judged as positive or negative. In terms of psychological well-being, it is not the experience of positive affect that is paramount, instead it is whether the people are able and can choose to approach emotions in a safe way. Therefore, the barriers one may feel or think regarding their emotional experience and expression may influence their subjective and psychological well-being. For example, approaching an inner sense of injustice may highlight that one's autonomy has been challenged, therefore, approaching and responding to the subsequent emotion may lead to a future state of achievement and calm. From a social perspective the expression of emotions can be powerful in eliciting responses from other people, such as concern and care, thus has an important functional role in maintaining and strengthening interpersonal relationships and subsequent subjective well-being (Campos, Mumme, Kermoian, & Campos, 1994).

A positive psychology model of happiness contributes to the understanding of emotion and well-being. Seligman, Rashid, and Parks (2006) proposed the Positive affect, Engagement, Relationship, Meaning, and Accomplishment (PERMA) model of Happiness in an attempt to isolate the elements which contribute to the positive aspects of subjective well-being. Two aspects that Seligman et al. (2006) highlights in the model are, experiencing positive emotions, and having strong authentic relationships with others. In other words, from a theoretical perspective, a prerequisite to well-being, be it subjective or psychological, is that an individual is freely able to choose to safely identify and express emotions whether alone or with other people (Ryff & Singer, 1998). Therefore, clinical psychologists interested in



assimilating well-being into their practice therefore also need to be interested in the barriers to emotional experience and expression.

#### 2.4.4 Focusing on Subjective Well-Being

As subjective and psychological well-being are potentially highly associated and both related to emotions, a focus on subjective well-being will be taken. Focusing on subjective well-being is due to the lack of consensus within the definitions and measurements of psychological well-being limiting how far research findings can be generalised. Secondly, agreement across both philosophical and psychological schools that subjective well-being can either be perceived as a measure of well-being directly (i.e., hedonic well-being) or a consequence of high levels of psychological well-being (Compton et al., 1996). In other words, individuals reporting high psychological well-being would not generally be expected to be low in subjective well-being, particularly the aspect of life satisfaction. Focusing on subjective well-being also allows for alignment with current governmental well-being initiatives such as the annual population survey measuring well-being (Tinkler, 2015).

Now that subjective well-being has been introduced as a key concept, a more detailed introduction to emotion and its relationship to subjective well-being will be given.

#### 2.5 Emotion and the Link to Subjective Well-Being

As the thesis explores the relationships to subjective well-being of concepts associated with the processing of emotions, the broad concept of emotion will be introduced. After a general theory of emotion is presented, focus will turn to a cognitive model of

emotional expression that proposes disruptions and blocks to emotional expression at different stages of the emotional regulation process. Finally the relationship between AEE, a block highlighted in the cognitive model of emotional expression, will then be explored in relation to subjective well-being. The focus of the thesis on concepts that can disrupt or block emotional expression is due to a want to better understand the possible mechanisms involved when peoples patterns of emotional expression are in and of themselves the targets in psychological therapy.

### 2.5.1 A General Theory of Emotion and its Constitute Parts

A general theory of emotion differentiates between arousal, experience, expression, and reflection (Leventhal, 1991). Before briefly defining each component, the central tenants of the model are that the components are partially independent and are prone to discrepancies (Izard, 1992). Arousal refers to physiological responses, experience refers to subjective felt responses, and expression, refers to observable emotional behaviours. Reflection was added later to the component model and refers to interpretation and evaluation of expression, experience, and arousal. Reflection involves the activation of general beliefs and attitudes held about emotional expression, for example, “crying is unmanly” or “it’s important to let one’s feelings out” (Kennedy-Moore & Watson, 1999). As such reflection about emotion can lead to emotion about emotion, for example, evaluating one’s crying as a sign of weakness can evoke feelings of shame. However, reflection about emotion can also alleviate emotional distress, for example, when crying is evaluated as being reasonable and understandable.

Models of adjustment postulate that healthy emotional expression can facilitate life enhancing transitions between different emotional states following stressful life events

(Kubler-Ross, 2005; Worden, 2009) whilst non-expression of emotion can have negative health consequences (Pennebaker, 1985). Thus further discussion will follow regarding the expression component of the general theory of emotion in the context of a tendency to not express or to berate oneself in the reflection of the experience and expression of emotion.

### 2.5.2 The Functions of Emotional Expression and Non Expression

Emotional expression refers to the communication of emotional experience through verbal and nonverbal behaviours (Gross, 1998, 1999). Kennedy-Moore and Watson (1999) describe emotional expression as the link between ones internal experience and the outside social world. From a social perspective the expression of emotions can be powerful in eliciting desired responses from other people, such as concern and care, thus has an important functional role in interpersonal relationships (Campos, 1994; Fischer, 2008), a factor identified in the well-being literature. As already stated, emotional expression is considered to be central to the process of psychological adjustment to stressful life experiences, such as the grief following a loss. Thus, emotional expression can be viewed as a means of turning emotional experience into a more tangible outward expression; the function of which can be to facilitate emotional processing following stressful life events and/or maintain or create authentic social connection.

There is also a literature on the non-expression of the experience of emotion, most commonly termed emotional suppression. In a number of experimental studies, Pennebaker (1985) outlined the negative consequences of chronic emotional suppression, suggesting that as suppression is considered to be effortful and leads to a stress response in autonomic activity, it is associated with poorer physical and mental health outcomes. The general model

of emotion proposes that there can be discrepancies between the components; arousal, experience, expression, and reflection. In other words, an individual may have a strong emotional experience but not wish to express it based on reflections that it would be inappropriate to do so. Pennebaker (1985) outlined three ways that reflections made about emotional expression can impact emotional expression and secondary emotions; inhibited, regretted and reluctant. Inhibited expression' refers to wanting to express but actively holding back from expressing, 'reluctant expressing' is expressing but not wanting to, whereas 'regretted expression' is expressing and later regretting it. Reluctant and regretted expression may be enacted after the event and cause strong secondary emotions such as shame.

It is important to note that the argument laid out so far does not subscribe to the simplistic notion that all emotional expression has a positive effect on mental health, whilst non-expression, or suppression, always has a negative effect on mental health. There are of course contexts when emotional expression is not indicative of maintaining or creating positive social outcomes. A cognitive model of emotional expression and non-expression as a means of regulating emotions is discussed to show the choice points that an individual may have when experiencing emotion and processing whether to express it or not.

### 2.5.3 A Cognitive Model of Emotional Expression and Non Expression

The Kennedy-Moore and Watson (1999) five steps cognitive evaluation model of emotional expression and non-expression takes a cognitive behavioural perspective that highlights the active role individuals take in the regulation of emotional experience and expression. At each step of the model potential disruptions which can lead to non-expression

of emotion are outlined. The first two steps of the model operate at a preconscious level whilst the final three steps of the model are based on conscious processing.

The first two steps consist of the preconscious processing of emotional information which can lead to the subsequent automatic physiological arousal resulting from a potentially emotion-provoking stimulus. Step two refers to one's preconscious perception of one's affective state. Disruption at this step can occur when a person is unconsciously motivated to block the experience of negative emotions from one's consciousness. Disruption at this level has been thought of as repressive coping, a coping style in which negative aspects of the self, especially negative emotions, are denied without conscious recognition (Garssen, 2007; Lumley, 2002).

The final three steps in the model are more closely linked to conscious processing. The third step involves the labelling and interpretation of affective response. A disruption at this step occurs when there is a lack of skill to label or interpret an emotional experience, thus leads to non-expression. Alexithymia can be thought of as a clinical form of this, whereby an individual is unable to identify and distinguish between different emotion states. The fourth step involves an evaluation of affective response in terms of beliefs and goals. Disruption can be due to negative attitudes concerning emotional expression. In the fifth step, one perceives whether one's immediate social context permits the expression of emotions. Disruption at this level involves the perception that one lacks socially accepted opportunities to express emotions in an adaptive way. Lumley (2002) asserted that disruptions at steps four and five can be referred to as the volitional and conscious inhibition of emotion, thus are distinct from repression as outlined in step three.

#### 2.5.4 Relationship between Emotion, Emotional Expression, and Subjective Well-being

The general theory of emotion and cognitive evaluation of emotional expression can be considered in relation to subjective well-being in the following ways. Firstly, linked to the arousal component of the general model of emotion it may be that individuals vary in their physiological responses to emotion provoking situations, for example are hypersensitive to negative emotion events and hyposensitive to positive emotion events. Secondly, linked to the experience aspect of the general model of emotion and repressive coping style outlined in step two of the cognitive evaluation model, people will vary in their experience of a primary emotion. Thirdly, at the more conscious processing levels of the cognitive evaluation model and reflection component of the general emotion model, individuals will vary in the acceptability of experiencing and expressing the primary emotion, and will subsequently experience different secondary emotions following the experience of a primary emotion such as elation or anger. By considering the general model of emotion and the cognitive evaluation model it would seem that the affective components of subjective well-being, positive and negative affect, could be impacted by an individual's unique relationship to emotion and the expression of it. It would also appear to be that some of an individuals' relationship is based on consciously held beliefs or attitudes about emotion which regulate emotional experience and expression, whilst other aspects of the relationship with emotion operate at a more preconscious emotional coping level.

### 2.5.5 The Focus on Emotional Processing in Therapies

The cognitive evaluation model (Kennedy-Moore & Watson, 1999) presents potential disruptions to emotional expression, some operating in preconscious processing and others in conscious processing. A key point to take away from the discussion so far is that individuals are often faced with choices regarding their emotional expression; choices which are often heavily impacted by the personal beliefs, attitudes and perspectives held by the individual. Dysfunctional beliefs about emotion and the expression of it are sometimes the therapeutic target in a range of evidence-based psychological therapies as means of reducing distress. For example, in Compassion Focused Therapy patients are encouraged to cultivate awareness and kindness to be able to approach all experience without self criticism (Gilbert, 2009).

In Cognitive Behaviour Therapy unhelpful beliefs about emotions may be addressed and challenged as a specific form of dysfunctional assumption (Beck & Beck, 2011).

In Mindfulness-Based Cognitive Therapy the repeated practice of bringing non-judgmental awareness and acceptance to feelings, thoughts and sensations may reduce more automatic unhelpful beliefs about emotions (Segal, Williams, & Teasdale, 2013). Similarly, in Acceptance and Commitment Therapy participants are encouraged to feel emotions fully and without defence, as an alternative to experiential avoidance (Harris, 2009). In Dialectical Behavioural Therapy components are included which likely modify beliefs about emotions, including mindfulness, distress tolerance, and emotional regulation methods (Lynch & Bronner, 2006).

A range of therapies approach how individuals consciously relate to their experience and expression of emotion, with a number seeming to consider the importance of taking a non-critical stance to one's emotions which enables an increased freedom to feel and express

emotions in an assumed healthy way. In other words within the cognitive paradigm the importance of non-critical mindset in ones thinking about their experience can be a common therapeutic aim. To study how the regulation of emotional expression may impact on subjective well-being two trans-diagnostic concepts will be explored in more depth. The relationships that AEE taken from the Cognitive Behavioural Therapy approach and FoC taken from the Compassion Focused Therapy approach, have on subjective well-being will be introduced.

## 2.6 The Relationships between AEE, FoC, and Mental Health

The key constructs to this thesis of AEE and FoC will be defined before relevant literature regarding the relationships with mental health are summarised. To aid the understanding of FoC being introduced to the current thesis, relevant theory will be outlined to explain the relationship to emotion and mental health. To begin with though, the literature on AEE and mental health will be reviewed.

### 2.6.1 The Relationship between AEE and Mental Health

Cognitive behavioural theories of emotion suggest that far from individuals being passive in the experience of emotion, individuals are constantly interacting with their environment and inner experience in attempts to regulate emotion and their expression or non-expression of it (Gross. 1998; 1999). The choice of expression or non-expression is conceptualised by the aforementioned Kennedy-Moore and Watson's (1999) cognitive evaluation five step model of emotional expression and non-expression.



In the conscious processing steps of the model, Lumley (2002) asserted that disruptions of expression can be referred to as the volitional and conscious inhibition of emotion. They suggested that broad cultural dicta such as ‘keep a stiff upper lip’ or ‘let it all hang out/wear your heart on your sleeve’ as well as more specific cultural situational norms, e.g., ‘cry at a funeral but never at work’ combine to create the ‘shoulds’, ‘oughts’, and ‘musts’ of emotional expression and nonexpression. In other words, the cultural dicta regarding emotional expression are internalised as attitudes. An ‘attitude’ can be defined as a relatively enduring organisation of beliefs, feelings and behavioural tendencies towards socially significant objects, groups, events or symbols (Vaughan & Hogg, 2005).

#### 2.6.2 The Measurement of AEE

Attitudes about emotional expression can therefore range from good to bad (Olson & Zanna, 1993). The AEE is a 20-item measure which specifically assesses the negativity of attitudes about emotional expression (Joseph, Williams, Irwing, & Cammock, 1994). Example items include ‘If a person asks for help it is a sign of weakness’, ‘I should always have complete control over my feelings’, ‘My bad feelings will harm other people if I express them’, and ‘I seldom show how I feel about things’. The authors of the AEE originally designed the measure to add specificity to the cognitive behavioural theory that individuals with dysfunctional assumptions are predisposed to mental ill health when such assumptions are activated in the here and now by critical incidents (Beck & Beck, 2011). The AEE focused on traumatic events, however, the scale has been used in other population groups.

The Dysfunctional Attitudes Scale (Beck, Brown, Steer, & Weissman, 1991) has been used to measure dysfunctional attitudes, beliefs and assumptions; however, its construct

validity has been called into question due to inconsistent causal links between cognitions and mental health. As such, in the interest of specificity, the AEE was intended to provide a means of measuring potentially dysfunctional attitudes towards the specific area of emotional expression. Whilst the AEE scale was initially validated with trauma populations (Joseph et al., 1994), it has been used with other populations including community samples (Spokas, Luterek, & Heimberg, 2009; Wong, Pituch, & Rochlen, 2006) as the measures conceptual underpinnings are not trauma specific and instead as aforementioned the AEE is based on the role of cognitions in all human behaviour and well-being. With this said, the AEE is predominately a measure of attitudes about emotional expression as opposed to a comprehensive measure of the behaviour of emotional expression or non-expression. This distinction is important as the theory of planned behaviour (Ajzen, 1991) posits that whilst attitudes explain much variance in predicting behaviour, other important factors also explain variance such as peoples sense of control over their behaviours. As such, the use of the AEE enables this thesis comment on the attitudes people hold which are speculated to contribute to their emotional behaviours as suggested by Ajzen's (1991) theory of planned behaviour.

### 2.6.3 Systematic Review of the AEE and Mental Health Literature

A systematic literature review was conducted in August 2016 to identify studies exploring the association between AEE and mental health. There are other measures concerning attitudes and beliefs about emotions such as the Beliefs about Emotions scale (BES; Rimes, 2010) and the Ambivalence about Emotional Expression (AEQ; King & Emmons, 1990). When considering which measure to use within the literature, two strengths of the AEE were noted that rendered it a good fit for the current study. Firstly, the BES and AEQ have been found to be unidimensional measures (Rimes, 2010; Mongrain & Vettese,

2003) compared to the AEE's four factor solution (Laghai & Joseph, 2000; Spokas, Luterek & Heimberg, 2008). As the current study aimed to explore how attitudes about emotional expression were related to well-being, having greater specificity within different types of attitudes was preferred. A second area of difference is that AEQ was conceptually interested in the inner conflict people feel when expressing emotions and was developed out of the conflict over goals literature, otherwise termed personal strivings (Emmons, 1986). The BES (Rimes, 2010) was designed to measure the negativity of beliefs about both the experiencing and expression of emotions, however, as it has been shown to have a one factor solution the measure does not allow for attitudes about the experience and expression of emotion to be differentiated. Therefore, the AEE measure is the only one to be able to quantify different types of beliefs about the specific act of emotional expression.

To limit results to those which used the AEE scale (Joseph et al., 1994) the search term 'Attitudes towards emotional expression' appearing in all text was used. As the literature is relatively small, no search terms were included regarding mental health to ensure that all studies using the AEE were found. Results were limited to English language and those which were published in peer-reviewed journals. Using the EBSCO host to search PsychInfo, PsychArticles, and Medline, 80 studies were identified. Of these studies 11 reported associations between AEE and measures of mental health. Review of the reference lists identified one further study. In total 12 studies were reviewed.

#### 2.6.3.1 AEE and Anxiety

Associations with anxiety were reported in two studies using community samples Spokas, Luterek, & Heimberg, 2009; Wong, Pituch, & Rochlen, 2006). Wong et al. (2006)

used the Manifest Anxiety Scale (Bendig, 1956) which has good internal consistency, and reported in an all-male sample of 227 participants, a significant small correlation between more negative AEE and higher levels of trait anxiety. Having recruited a sample of 95 undergraduate students who, based on self-report measures, were categorised into low, mild to moderate and high levels of social anxiety groups, Spokas et al. (2009) analysed group differences in AEE. Spokas et al. (2009) reported that the high social anxiety group had a higher AEE mean, followed by the mild to moderate group and finally by the low group. Spokas et al. (2009) concluded that the more negative AEE is the greater distress in the form of social anxiety. Spokas et al. (2009) controlled for participants ability to attend to emotion and describe emotion and found the relationship between AEE and distress remained.

#### 2.6.3.2 AEE and Depression and Eating Disorder Psychopathology

Relationships between AEE and other forms of distress and specific psychopathologies have also been reported. Joseph et al. (1994) reported a small significant association between AEE total score and depression as measured by the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), in a mixed student sample. Small yet significant linear correlations were reported in community samples, showing that more negative AEE was associated with more distress. The measures used by the studies so far are direct measures of distress; anxiety and depression. Meyer, Leung, Barry, and De Feo (2009) and Haslam, Arcelus, Farrow and Meyer (2012) reported associations between AEE and psychopathology, in other words indirect distress. In all female community student samples small to medium effect sizes between negative AEE and eating disorder relating psychopathology were reported (Meyer, Leung, Barry, & De Feo, 2009; Haslam, Arcelus, Farrow, & Meyer, 2012). The studies reviewed provide support that more negative AEE is

associated with distress both when measured directly and indirectly in the form of psychopathology.

#### 2.6.3.3 Summary of Cross-sectional Literature on AEE and Distress

All relationships between AEE and distress yielded small effect sizes, whilst studies exploring the association between AEE and psychopathology ranged from small to medium. Whilst small to medium in size, these correlations are noteworthy as all were from community samples assumed to represent groups of people not considered to be clinically distressed; therefore, AEE seems to be more than a clinical term in that it is relevant to the mental health of community samples. The relationship between AEE and distress remained when controlling for other emotion related abilities such as attending and describing emotion, suggesting that attitudes hold a clear role in the experience of emotion. However, all of the studies reviewed thus far are cross-sectional thus the relationship between AEE and distress cannot be considered to be causal. The studies also recruited community student samples with mean ages in the early 20's so it is not known whether findings can be generalised to clinical groups or other age groups.

#### 2.6.3.4 AEE and Post Traumatic Stress

In non-student samples of participants at higher risk of exposure to traumatic life events, more negative AEE was again found to be associated with greater distress. Lowery and Stokes (2005) recruited a sample of paramedics and using a cross sectional design, found that more negative AEE was associated with increased Post Traumatic Stress Disorder (PTSD) symptomology, as measured by the Posttraumatic Diagnostic Scale (Foa, Cashman,

Jaycox, & Perry, 1997). Lowery and Stokes (2005) controlled for number of traumatic events and levels of peer support but still found the relationship between AEE and distress remained. Quale (2009) measured PTSD using the Impact of Event Scale – revised (Weiss, 2007) in a clinical sample of 79 patients who had suffered spinal cord injuries. It was found that rather than injury type or severity, it was more negative AEE that was found to be a risk factor for developing post traumatic stress symptoms both full or sub-syndrome presentations, alongside symptoms of anxiety. In a clinical sample of 28 females with anorexia compared against age matched healthy controls, the clinical group reported significantly more negative AEE (Jansch, Harmer, & Cooper, 2009). The results from studies recruiting at risk or clinical groups supports the notion that more negative AEE is associated with greater distress as is the case in community samples. This was found to be the case when the number of traumatic events and amount of peer support was controlled for, suggesting that alongside social factors, the psychological factor of AEE remains associated with distress. However, as in the community studies all of the studies were again cross-sectional so causation cannot be assumed.

Longitudinal research by Joseph et al. (1997) and Nightingale and Williams (2000) support a causal role of AEE on future distress. Joseph et al. (1997) recruited a clinical sample of 73 survivors of a ferry accident three years post accident. Joseph et al. (1997) employed a longitudinal design spanning two time points at three years and five years after a ferry accident. Statistically significant correlations were reported between more negative AEE at three years and higher levels of depression, anxiety and post traumatic avoidance symptoms at five years, as measured by the Beck Depression Inventory (Beck, Steer, & Carbin, 1988) and the Spielberger State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970) and the Impact of Event Scale (IES; Horowitz, Wilner, & Alvarez, 1979).

However, the study suffered from a 50 percent attrition rate and when interpreted alongside the fact that participants were recruited three years after the trauma, there is doubt regarding the causal relationship as it may have been that the trauma itself that led to the development of more negative AEE.

Nightingale and Williams (2000) designed a prospective study to test whether AEE, measured much earlier on after a traumatic event, could predict post traumatic stress in the immediate weeks following a road traffic accident. Nightingale and Williams (2000) found a small but significant relationship at week one for AEE and the prediction of intrusive symptoms at week six. Nightingale and Williams (2000) also reported that AEE scores remained stable over a six week period following a traumatic event, even when mood and distress symptoms fluctuated, suggesting that AEE is not a reflection of mood or symptoms and perhaps are a relatively rigid and enduring collection of attitudes. Whilst Nightingale and Williams (2000) provide stronger evidence for a causal role of AEE and increased probability of PTSD following trauma, caution is advised as a third of their participants nominated prior traumas other than the most recent road traffic accident as being responsible for their ongoing post traumatic symptoms.

#### 2.6.3.5 The Mediating Role of AEE on Distress

To add to the support provided from longitudinal studies, cross-sectional studies have reported on the potential mediating role that AEE may play in the development of distress. In all female community student samples Haslam, Arcelus, Farrow, and Meyer (2012) found that people's negative AEE fully mediated between invalidating environments in childhood and current eating concern in adulthood; however, a small effect size was reported. Whilst the

effect size was small, it is noteworthy as it was a community sample. Thus, it may be that for some people negative AEE develop due to invalidating reactions they have received when expressing emotion. Whilst this maps onto the cognitive model in that early life experience shape core beliefs and dysfunctional assumptions (Beck & Beck, 2011) it must be noted that the study was cross-sectional thus causation cannot be inferred.

Similarly, in a cross-sectional community sample of 194 participants Surgenor and Joseph (2000) reported that an association between life events and distress, as measured by the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983), was mediated by AEE, but only for those reporting low levels of social support. Whilst peer support had been controlled for in previous cross sectional studies, Castle, Slade, Barranco-Wadlow, and Rogers (2008) compared AEE and perceived social support over approximately a three month testing period, time point one during the third trimester of pregnancy and time point two six weeks postpartum. Castle et al. (2008) used a longitudinal design and found that, within a sample of new first time parents, negative AEE was associated with parents feeling less able to signal their needs for social support. Whilst Castle et al. (2008) failed to report specific correlations, it is reported that for mothers, who represented 57% of the sample, more positive AEE measured antenatally were associated with higher levels of perceived social support measured postnatally six weeks post the birth. The relationship for men was different in that AEE measured at time point one was associated with perceived social support at time point one, but was not associated with perceived social support at time point two.



#### 2.6.3.6 The Role of Social Support in AEE

Two interpretations have been made regarding the role of social support in the relationship between negative AEE and well-being. The first is that individuals with negative AEE are more likely to receive less support from their social networks, possibly due to negative beliefs about emotional expression leading to a compromised ability to signal for help and mobilise support. The other interpretation is that those with more negative AEE individuals tend to hold a negativity bias regarding emotional expression of themselves and others which blocks the experience of supportive and affiliative emotional experience which often comes from social support. In other words, rather than negative AEE being linked to a fear of negative consequences or beliefs, perhaps a resistance or difficulty experiencing and expressing positive social emotional experiences may be implicated.

#### 2.6.3.7 AEE and Well-being

All of the studies reviewed focused on the relationship between AEE and distress. Only one paper explored the association between AEE and well-being. Castle et al. (2008) reported no association between AEE and well-being, however, well-being was measured using the General Well-being Questionnaire (Bradley & Lewis, 1990) which does not include items of life satisfaction thus is not a complete measure of subjective well-being. The General Well-being Questionnaire was also designed for clients with type-II diabetes, thus has a leaning towards physical well-being in a health psychology setting.

#### 2.6.3.8 The Relationship between Gender and AEE

Within the AEE literature two studies analysed the effect of gender (Castle et al., 2008; Surgenor, 2000). In a community sample of 194 participants Surgenor and Joseph (2000) report no gender differences. However, in Castle et al.'s (2008) sample of perinatal parents, a small effect size was reported in that newly expectant fathers reported more negative AEE than mothers (Castle et al., 2008). Whilst empirical results on gender are inconsistent when interpreted within the wider sociocultural context regarding the construct of gender, possible gender differences will be included in the hypothesis to add to the debate.

#### 2.6.3.9 Summary of Literature on the AEE and Mental Health

In summary AEE appears to be a trans-diagnostic concept linked to different measures of distress and psychopathology in both community samples (Haslam et al., 2012; Meyer et al., 2009; Spokas et al., 2009; Wong et al., 2006) and clinical samples (Jansch et al., 2009; Joseph et al., 1997; Nightingale & Williams, 2000), even when other emotion related abilities such as attending to and describing emotion are controlled for. In other words more negative AEE is consistently associated with higher levels of distress. The literature is unclear as to whether this relationship may differ by gender, however, one study has reported that men may report more negative AEE (Castle et al., 2008) thus further investigation is warranted.

Within stress responses to traumatic events, more negative AEE was associated with greater levels of post event symptomatology, as measured by different questionnaires in cross

sectional studies (Lowery & Stokes, 2005; Quale et al., 2009), longitudinal studies (Joseph et al., 1997) and negative AEE was evidenced to hold predictive value in a prospective study (Nightingale & Williams, 2000) even when mood and degree of symptoms were controlled for. Longitudinal studies suggest a causal role for AEE on future distress and in line with the cognitive model, there is some evidence from a community sample that an invalidating environment in childhood may lead to the development of self critical and negative AEE (Haslam et al., 2012).

There is also suggestion that perceived social support (Castle et al., 2008; Surgenor & Joseph, 2000) may mediate the relationship between AEE and well-being, perhaps due to inability to use emotion to receive positive emotions and care from others, or that an overly harsh and critical negativity bias regarding emotional expression may block the experience of supportive and affiliative emotional experience from support networks.

There is a lack of research which included direct measures of well-being. Castle et al. (2008) reported no significant relationship between AEE and well-being, however, the sample was specific in that it was new first time parents and the well-being measure used was not a measuring subjective well-being in its entirety. Thus generalisations from this study are limited. When reviewing associations between AEE and distress, it was noted that some of the measures used, whilst designed and used within the distress paradigm, include both negative and positively worded items. For example, the Spielberger State-Trait Anxiety Inventory (STAI; Spielberger, Gorsuch, & Lushene, 1970) consists of an equal balance of positive and negative items such as 'I am content', 'I feel calm', 'I am tense' and 'I am worried'. The HADS (Zigmond & Snaith, 1983) also includes a combination of positive and negative worded items such as 'I feel cheerful' and 'I feel tense'. Therefore, reported results

on the associations between AEE and distress in studies using the aforementioned measures (Joseph et al., 1997; Surgenor & Joseph, 2000) may also be commenting on a potential relationship between AEE and well-being, a notion supported by Joseph and Wood (2010). However, as the HADS and STAI were not designed as a measure of well-being these conclusions remain tentative and speculative.

AEE appears to be a useful transdiagnostic concept linked to a range of distress, suggested to develop as a result of childhood experience, and perhaps operating through the social function of emotions. Joseph et al. (1994) designed the AEE scale to provide a means of assessing negative, critical and dysfunctional attitudes regarding emotional expression, on the premise that reduced ability to express emotions leads to poorer mental health. However, the association to well-being is not known as it has been explored very seldom in the literature.

Following on from the review of AEE literature, a second concept, Fears of Compassion, presumed to be associated with the blocking of emotional experience and expression will be discussed.

## 2.7 The Relationship between Compassion Focused Therapy, FoC, and Mental Health

The critical attitudes and beliefs held towards emotions targeted in therapeutic approaches consider how well-being can be enhanced by changing how one consciously relates in their cognitions to their experience and expression of emotion. Gilbert (2009) proposed that the conceptual opposite to critical judgements are compassionate ones. Compassion is not an emotional state such as anger, sadness or joy, instead it has been

described as ones capacity for sympathy, empathic understanding and non-judging or condemning across all human experience (Gilbert, 2009). Compassion across all human experience has been referred to as flows in three directions, *for others*, *from others*, and *for self* (Gilbert, 2010; Neff, 2003). Central to all flows of compassion is the deliberate attention to emotion (Neff, Kirkpatrick, & Rude, 2007).

Compassion has been embraced by western psychology, largely because of the robust findings from the self-compassion literature of the positive association with subjective well-being. Self-compassionate individuals have been shown to also report more positive affect (Neff, 2009; Neff et al., 2007; Wei, Liao, Ku, & Shaffer, 2011), less negative affect (Birnie, Speca, & Carlson, 2010; Leary, Tate, Adams, Batts Allen, & Hancock, 2007; Neff et al., 2007; Wei et al., 2011), and greater life satisfaction (Wei et al., 2011). It has also been shown that those high in compassion report fewer symptoms of depression and anxiety than less self-compassionate individuals (Neff & McGehee, 2010; Ying, 2009). The concept of compassion has been translated into compassion focused therapy, wherein two prominent theoretical models help to further understand compassion and its impact on emotion within a therapeutic context. The tripartite affect regulation model (also known as the three circles compassion model) and social mentality theory will be outlined before taking a focus on the fears and/or resistance that some individuals feel to compassion and the emotions that a compassionate stance may allow.

### 2.7.1 The Role of Social Mentalities in Compassion

Social mentality theory considers the links between motives and emotions (Gilbert, 2009). Gilbert (2015) defines a social motive as an evolutionary motivation to secure

biosocial goals such as sexual, caring, competitive, and cooperative acts. In other words a social motive requires interaction with other people. Motives evolved because they help humans survive, whereas emotions guide us to our goals and provide a feedback system of whether goals are met or remain unmet. Motives can relate to two broad types of mentalities in compassion theory; caring and competition, termed social mentalities (Gilbert, 2009). A social mentality is the organisation of abilities, competencies and modules which is guided by motives, with the aim of achieving social outcomes and roles (status, friendship, care, and sexual). It is interpersonal in nature and helps think about different aspects of how our minds are activated in different patterns in different types of relationships. Gilbert (2009) distinguishes between competition and caring, suggesting that when caring for others, care-focused emotions are needed whilst threat-based emotions are turned off. In contrast, when competing with others, care focused emotions are turned off and desires to subdue others are turned on. Compassion is thought to emerge when minds seek care focused interactions at inter and intra personal levels. For example, at the intra-person level, a person who empathises with their own circumstances when being made redundant and expresses sadness may have a more dominate care social mentality. At an interpersonal level, a person who is receptive to the concern that loved ones show them when they are made redundant and authentically expresses gratitude to them is operating from a more dominate care mentality. Whilst a competition mentality can lead to a range of personal and team successes, it also has a tendency for critical comparisons and a yearning to be better.

### 2.7.2 The Role of Affect Regulation in Compassion

As social mentality theory proposes that a caring and a competition mentality direct the motives of humans, it is the emotions or affects that provide the feedback to confirm

whether motives and goals have been met or not. Compassion Focused Therapy identifies three types of emotion regulation; those that focus on threat and self-protection (threat system), those that focus on achieving (drive system), and those focused on contentment and feeling safe (soothing system) (Gilbert, 2010; Liotti & Gilbert, 2010). The threat system aims to defend the self and is associated with the flight, fight and freeze responses. The drive system centres on goal directed behaviour and operates on a sense of reward or failure. The soothing system is associated with understanding, commitment, kindness, acceptance, compassion and a sense of interpersonal security and connection. In individuals without significant distress, the three affect regulation systems tend to be activated appropriately in the correct contexts, thus there is a congruency to external and internal experience.

However, individuals vary in their capacity for compassion and the varying components of the three circles model may vary in their dominance (Gilbert & Procter, 2006). For example, the sense of competition with others strongly activates both the threat and drive systems. When the systems become too unbalanced, for example the threat system is chronically activated a person may feel more distressed. Central to compassion focused therapy is the finding that the experience of compassion or affiliative prosocial emotions can in some individuals activate the threat system rather than the soothing system (Gilbert, 2010). This means that an individual can experience positive emotions such as love, interest, and care as threatening as opposed to restorative. Thus, potentially positive experiences such as the kindness or support offered from others can be experienced in a critical way. In other words external and internal realities are incongruent.

An aim in compassion focused therapy is to ascertain whether there may be over and under activated components of the affect regulation system, for example, an over activated

threat system and under active soothing system. In this example, practical exercises to facilitate experiences being *felt* within the soothing system may readdress any balance issues. An important aspect of CFT is that it is an evolutionary theory. CFT assumes that human brains and minds have evolved in such a way that the competition social mentality and threat and drive systems are prone to be quickly activated, largely due to the better safe than sorry principle. Therefore, CFT is based on an evolutionary understanding of the mind, allowing the therapist and client to work with how the mind naturally works rather than how one would like the mind to work.

### 2.7.3 The Relationship between FoC and Mental Health

Researchers interested in compassion focused therapy realised that some people experienced fears or resistances to compassion and the positive affiliative emotion it can foster. A number of hypotheses have been put forward to attempt to explain the different reasons for resisting or fearing compassion. A few which have found some empirical support are a belief or misunderstanding that compassion is a sign of weakness or is self-indulgent has been reported (Gilbert, McEwan, Catarino, Baiao, & Palmeira, 2014). It is suggested that abusive and neglectful childhood experiences from attachment figures can lead to confusion and/or trauma emotion memories being reactivated by cues of positive emotions in interpersonal or intrapersonal settings (Liotti & Gilbert, 2010), fear of one's own rage or sense that one is internally bad, e.g., if you knew the real me you would not think I deserve compassion (Davanloo, 1999), unprocessed or frozen grief leading to heightened sense of loneliness (Gilbert & Irons, 2005), and a major reason is that of owning a self-critical rather than self-validating system of monitoring and evaluating oneself (Kannan & Levitt, 2013; Neff, 2011; Gilbert & Irons, 2004; Whelton & Greenberg, 2005). Self-critical individuals can



respond to compassionate exercises with physiological responses reflective of the threat system as opposed to the soothing systems, thus may be more in the realm of competition mentality (Longe, Maratos, Gilbert, Evans, & Volker, 2010; Rockliff, Karl, McEwan, Gilbert, & Matos, 2011).

#### 2.7.4 The Three Flows of FoC

A means of measuring people's resistance or fear of experiencing compassionately (Gilbert et al., 2014) is the FoC measure (FoC; Gilbert, 2011). Lower levels of FoC are predictive of higher levels of actual self compassion (Gilbert et al., 2014). Like compassion FoC can be separated into the three directions of compassion: compassionate feelings *for others* (FoC for others), compassion *from others* (FoC from others), and compassion *for self* (FoC self). FoC from others concerns a fear of the affiliative emotions such as affection and care which are proposed to be the building blocks of secure attachments and positive feelings about the self and others. FoC for others largely relates to the attitudes regarding connecting and helping others. FoC self can consist of a sense that compassion is not deserved, or is a sign of weakness (Gilbert & Procter, 2006). FoC therefore can interrupt the deliberate action central to compassion of attending to emotional experience in a non-judgemental manner.

##### 2.7.4.1 Systematic Review of FoC and Mental Health

A systematic review of the literature was undertaken in August 2016 to identify studies exploring the relationship between FoC and mental health. As the current study was focused on investigating possible blocks to emotional processing related to the experience of compassion as defined by Gilbert (2010), the study was not interested in peoples overall

levels of compassion or self-compassion, instead it was interested in peoples resistance to experiencing compassion as this was a phenomena observed within clinical practice. To limit results to those which used the FoC scales (Gilbert, McEwan, Matos, & Ravis, 2011) the search term 'Fear of Compassion' appearing in all text was used. To ensure that all studies using FoC scales were found no other search terms such as those relating to mental health were used. Results were limited to English language and those which were published in peer-reviewed journals. Using the EBSCO host to search PsychInfo, PsychArticles, and Medline, 443 results were returned. Perusal of the results, 11 studies that directly used the FoC scales were identified and reviewed further. Review of reference lists did not lead to the identification of other research papers. As FoC is measured in three flows by three measures, the literature relating to each scale will be taken in turn.

#### 2.7.4.2 Review of the Relationship between FoC Self and Mental Health

FoC self has been shown in community samples to be positively associated with distress such as depression (Gilbert et al., 2011, Gilbert et al., 2012, Joeng & Turner, 2015; Miron, Seligowski, Boykin, & Orcutt, H, 2016). In student samples using the DASS-21 (Lovibond & Lovibond, 1995) correlation strengths ranged between .40 to .52 (Gilbert et al., 2011; Miron et al., 2016). When using the Self-report Depression Scale (SDS; Zung, 1965) with a sample with an 82% female majority Joeng and Turner (2015) reported a similar relationship of .552 between FoC self and depression. Within a clinical sample of adults accessing community mental health services for depression, Gilbert et al. (2014) again used the DASS-21 and found large correlations between FoC self and depression. Medium sized positive relationships between negative affect, as measured by the PANAS negative (Watson, Clark, & Tellegen, 1988), were reported in an all-female community sample (Kelly &

Dupasquier, 2016) and mixed gender community sample (Miron, Sherrill, & Orcutt, 2015). Gilbert et al. (2011, 2012, 2014) also reported medium sized positive correlations between FoC self and stress and anxiety. In two samples of students who had experienced a DSM-IV defined type A traumatic event at some point in their life Miron et al., (2015; 2016) reported medium sized positive correlations between FoC self and post-traumatic stress symptomatology, whilst Kelly, Carter, Zuroff, and Borairi (2013) found a large sized positive correlation between FoC self and eating disorder symptomatology in an all-female clinical group at admission into inpatient eating disorder services. In a different sample Kelly, Carter, and Borairi (2014) found that an all-female clinical group of patients meeting DSM-IV eating disorder diagnoses had a statistically higher group mean FoC self score compared to an all-female student sample.

#### 2.7.4.2.1 FoC Self and Well-being

Two studies explored the relationship between FoC self and positive affect. In an all-female student sample Kelly and Dupasquier (2016) used zero-order correlations and found a non-significant relationship to positive affect as measured by the PANAS positive scale (Watson, Clark, & Tellegen, 1988). Contrary to this, Gilbert et al. (2012) used the Types of Positive Affect Scale (Gilbert et al, 2008) with a mixed community student sample and found negative associations between FoC self and feeling safe and relaxed. In other words, those with higher FoC self-reported lower levels of feeling characteristically safe, secure, warm, calm, peaceful and relaxed. The Types of Positive Affect Scale measures how characteristic it is for a person to experience various positive emotional states and three factors have been extracted from the measure leading to separate subscale scores for active, safe and relaxed emotion states. Active refers to feeling energetic and lively, safe refers to feeling

characteristically secure and warm, whilst relaxed emotion states refers to calm and peaceful emotional feeling. Gilbert et al. (2012) reported that effects are small, but as it was a community sample that was recruited the findings do suggest that higher FoC for self may be associated with lower positive affect. The Types of Positive Affect Scale (Gilbert et al., 2008) aligns with an aspect of subjective well-being as it quantifies the degree of positive emotion experienced by type. However, it cannot be used as a measure of subjective well-being in isolation as it does not enquire about negative affect or life satisfaction.

#### 2.7.4.2.2 Mediating Role of FoC Self in Distress

Path analysis and regression models provide data to suggest that FoC self may have a mediating role in the development of PTSD from childhood sexual and physical abuse (Miron et al., 2016) as well as a mediating role between the long established relationship between self-criticism and depression (Joeng & Turner, 2015). However, both studies were cross sectional in design and recruited student samples. Kelly et al. (2013) recruited a clinical sample and employed a longitudinal design to test whether FoC self as measured in patients with eating disorders at the start of their inpatient treatment, could predict changes in eating disorder symptomatology and self-reported shame. Kelly et al. (2013) found that baseline FoC self and self compassion interacted to predict changes in shame over 12 weeks of treatment, even when initial symptom severity was controlled for.

#### 2.7.4.2.3 Summary of FoC Self Literature

Review of the literature shows that higher FoC self is consistently associated with higher levels of distress with a medium to large effect size. FoC self has also been suggested

to hold a mediating role between self-criticism and depression, and mediate adverse early life events and PTSD in later life. Associations have been found across distress types and in studies using measures focused on mental health diagnosis such as depression, anxiety, PTSD and eating disorders, but also in studies using the trans-diagnostic concept of negative affect. The literature also shows that higher FoC self are reported in all female samples compared to student samples. All of the correlations reported so far are from cross-sectional designs and relied on self-report methodologies, as such causation cannot be assumed and report bias may be a problem in that participants completed all of the measures at the same point in time. However, a longitudinal study showed FoC self to be a predictor of reduction of shame in psychotherapy, thus highlighting the clinical usefulness of FoC to clinicians.

#### 2.7.4.3 Review of Relationship between FoC from Others and Mental Health

Similar relationships were found for FoC from others and depression as reported for FoC self. In student samples recruited from the UK or USA, medium sized positive correlations were reported by Gilbert et al. (2011, 2012) in female majority samples when using the DAS-21 (Lovibond & Lovibond, 1995) as a depression measure. A different measure of depression, the Self-report Depression Scale (SDS; Zung, 1965), but again with a female majority sample, a large sized correlation was reported between FoC from others and depression. Hermanto et al. (2016) recruited separate samples from Canada, England and Portugal and found medium to large positive correlations between FoC from others and depression as measured by the Beck Depression Inventory-II (Beck, Steer, & Brown, 1996). The Portuguese sample of 302 adults also had a male majority and controlled for gender and ethnicity affects which were found to be non-significant. In a clinical sample Gilbert et al., (2013) found a medium to large strength correlations between FoC from others and

depression, anxiety and stress. Medium strength correlations were also reported in community samples between FoC from others and anxiety and stress. In an all-female student sample, Kelly and Dupasquier (2016) reported a large positive correlation between FoC from others and negative affect, and a small yet significant negative correlation with positive affect. Gilbert et al. (2012) measured positive affect using the Types of Positive Affect Scale (Gilbert et al., 2008) and reported that only the safe type of affect scale was significantly associated to a small degree with FoC from others.

#### 2.7.4.3.1 Mediators of FoC From Others and Mediating Role of FoC From Others

Cross sectional correlational studies revealed medium to large associations between attachment patterns and FoC, such as anxious attachment style and higher FoC from others (Gilbert et al., 2011), and medium correlations between FoC from others and alexithymia (Gilbert et al., 2012). Whereas, FoC self was found to mediate the relationship between self-criticism and depression, FoC from others was not found to mediate this relationship (Joeng & Turner, 2015), however, Hermanto et al. (2016) found through simple slope analysis that the association of self criticism and depression was found to be strongest in those with high FoC from others. Kelly and Dupasquier (2016) suggested that the relationship between parental warmth in childhood and FoC from others is partially mediated by social safeness; however, this was a cross-sectional study so causation is based on theoretical argument. The theoretical argument suggests that individuals' ability to receive and trust displays of care and compassion from others may be most tied to soothing system of the tripartite model of emotional regulation. Perhaps through the experience of warmth and support in early life one is then able to be vulnerable and trusting enough of others to receive in a compassionate tone as opposed to feel unsafe or threatened by such encounters.

#### 2.7.4.3.2 Summary of FoC From Others Literature

The literature shows that FoC from others is consistently associated to distress and studies have used a range of questionnaires. All studies are cross sectional and rely on a self-report design therefore suffer from the same limitations as the FoC self literature of not proving causation and suffering from report bias. The literature on FoC from others includes research from different countries and whilst often samples are unbalanced in gender, Hermanto et al. (2016) provide support that gender is not a confounding variable. There is little evidence available to comment on the potential relationship between FoC from others and subjective well-being, but two studies do report that higher FoC from others is associated with lower positive affect being experienced, particularly in the experience of safe positive affect such as feeling characteristically secure and warm. Data from path analyses have suggested that early life experiences of parental warmth and healthy attachment patterns may lead to the development of less FoC from others. The role of FoC from others in the relationship of self-criticism and depression seems different from that mooted in FoC self, in that those low in FoC from others do not report the self-criticism-depression relationship.

#### 2.7.4.4 Review of Relationship between FoC to Others and Mental Health

When compared to FoC self and FoC to others, FoC for others has been investigated the least in the literature. However, three studies by Gilbert et al. (2011, 2012, 2013) explored the links of FoC to others and stress, depression, anxiety, and positive affect. Two studies explored stress using the DASS-42 on community samples and found that FoC for others showed small yet statistically significant associations (Gilbert et al., 2011, 2012). The

relationship with anxiety was reported by three studies, two community samples (Gilbert et al., 2011, 2012) and one a clinical sample (Gilbert et al., 2013). All used the DASS-42 to assess anxiety and yielded small yet statistically significant association. FoC to others was not found to be statistically associated to positive affect in the areas of safe, relaxed or active positive affective states.

#### 2.7.4.5 The Relationship between Gender and FoC

Within the FoC literature gender differences were reported in five studies (Joeng & Turner, 2015; Gilbert, 2011, 2012, 2013; Miron, Sherrill, & Orcutt, 2015). Two found no gender differences on FoC scores (Joeng & Turner, 2015; Miron, Sherrill, & Orcutt, 2015), though the proportion of men in Joeng and Turner's (2015) sample was just 18.4% and 36.1% in Miron, Sherrill, and Orcutt's (2015) raising the possibility of a gender sample bias. Two community sample studies reported that men reported more fears than women on the FoC self and FoC from other subscales (Gilbert, 2011, 2012), with small to medium sized correlations reported. In a separate clinical study a small correlation was reported showing that women reported more fears than men on the FoC from others scale (Gilbert, 2013), however, Gilbert (2013) used a small sample of 52 participants with a gender bias as 69% of the sample being female. Findings from the literature are inconsistent, thus the possibility that FoC may be shaped by gender constructions will be considered in thesis to add to the existing evidence base.



#### 2.7.4.6 Summary of the Literature on FoC and Mental Health

Associations were consistently reported between more FoC self, more FoC from others and greater levels of a variety of distress, with some studies reporting medium to large effect sizes in community and clinical samples. Greater FoC from others was also found to be associated with lower levels of positive affect. FoC to others was found to hold smaller relationships with distress than reported in FoC self and FoC from others. There were no studies found exploring the possible association between FoC and subjective well-being. As such, research is needed in order to consider whether findings regarding distress could then be extended to well-being.

FoC self was found to be a mediator in the relationship between self-criticism and depression, and adverse life events in childhood and PTSD, and a predictor of reduction in eating disorder symptomatology and shame. FoC from others was found to mediate the relationship between self-criticism and depression in those with high FoC from others but not those with low FoC from others. Positive associations were found for both FoC self and FoC from others between unhealthy attachment styles based on childhood memories and higher levels of FoC. The relationship between parental warmth in childhood and FoC from others was also found to be mediated by social safeness, suggesting that an individual's ability to be compassionate to the self and receive compassion from others is learnt from childhood experiences of feeling safe, secure and the recipient of warmth.

The presented evidence regarding FoC comes predominately from the founder of compassion focused therapy, Paul Gilbert (Gilbert et al., 2011, 2012, 2013). This reality highlights the possible inherent bias present as measures used relate to theoretical

underpinnings of compassion focused therapy, specifically the affect regulation model and social mentalities theory. Other authors have begun to use measures designed by Gilbert (Joeng & Turner, 2015; Miron et al., 2015; Kelly et al., 2013, 2014; Kelly & Dupasquier, 2016), but it is clear that further work by other authors is needed, specifically, those using measures of subjective well-being. The studies reviewed have often recruited psychology graduates thus further studies recruiting a more varied sample are required. The literature presents an inconclusive view on how gender and FoC relate to each other, as such possible gender differences will be included as a hypothesis to attempt to add to the debate. The literature on FoC will also benefit from other authors exploring the relationship with other transdiagnostic concepts developed outside of the compassion focused therapy approach as this will help ascertain the overlap and uniqueness of the contributions of such concepts on mental health.

## 2.8 Do AEE and FoC explain Unique or Shared Variance in Subjective Well-Being

The literature has shown consistently that more negative AEE and higher FoC are associated with more distress. However, there is very little literature showing that less negative AEE and lower FoC are associated to greater subjective well-being. Thus, it is not possible to comment on the relationship between FoC, AEE and mental health when using a definition of mental health which ranges from high distress to high well-being. Two questions emerge from the existing literature, firstly, are FoC and AEE associated with subjective well-being alongside distress and therefore able to be considered in relation to mental health, and secondly, do AEE and FoC explain unique or shared variance. A search of the literature yielded no studies examining the relationship between AEE and FoC. As such to help consider whether AEE and FoC may explain unique or shared variance, one can draw from

the empirical literature for FoC and AEE, as well as from the underlying theoretical perspectives of CBT and CFT. Following a brief discussion of the literature and relevant theoretical perspectives, dualist theories are presented as a means of speculating on the uniqueness of the AEE and FoC.

### 2.8.1 Overlapping Findings from AEE and FoC Literatures

As already discussed, the literature shows both AEE and FoC to be associated to distress and to be perhaps a mediating factor between adverse childhood experiences and distress in adulthood (Gilbert et al., 2011; Haslam et al., 2012; Miron et al., 2016). Within the AEE and distress literature it is posited that a learnt overly harsh and critical negativity bias regarding emotional expression may block the experience of supportive and affiliative emotional experience from support networks (Surgenor and Joseph, 2000). Within the FoC literature, self reported dysfunctional attachment relationships and lack of parental warmth in childhood was associated with greater FoC, and a lower sense of social safety was found to mediate this path. Therefore the research suggests that both negative AEE and greater FoC may develop through similar processes rooted in attachment relationships with care-givers. Perhaps therefore it is not just the absence of an invalidating childhood experience, but also the presence of attachments perceived as warm and safe, which enable emotions to be experienced in a non-critical manner, that is conducive to high subjective well-being in future life.

### 2.8.2 Theoretical Perspectives of AEE and FoC

From a theoretical perspective it is also useful to reflect on how FoC and CFT originated. Therapy goals in CBT are often achieved through a position, typically, of disputation (i.e. faulty thinking). Over the course of therapy, the therapist and client work collaboratively to collate evidence which challenges unhelpful or distorted thinking in the here and now so that the client can move towards a more rational way and helpful way of thinking. Joseph et al. (1994) designed the AEE scales to represent cognitive components of a behavioural tendency of emotional suppression. However, clients can sometimes continue to feel the same negative affect even though distorted negative automatic thoughts and dysfunctional assumptions have been challenged rationally. Gilbert (2009) observed that these clients in CBT understand *intellectually*, but do not feel *emotionally*, for reasons such as their dysfunctional relationship to emotion, for example tendency to suppress or avoid emotion. This predicament can leave clients feeling less hopeful that their mental health will improve. Beck and Beck (2011) acknowledged the importance of emotion in the process of successfully restricting dysfunctional cognitions. Beck and Beck (2011) described that cognitive change occurs in the *fires of affect*, meaning that the cognitions which are emotionally salient are identified in the presence of emotion and the contrary evidence to challenge dysfunctional cognitions need to be emotionally salient in order to have the desired impact.

CFT has taken Beck and Beck's (2011) description of the fires of affect one step further by identifying that for some clients, the fires of affect evoke a threatening experience, even when the emotion is affiliative, thus the lack of compassion can act as a block to emotional and cognitive change in therapy. Clinical evidence of a combined approach using

CBT and CFT comes from a case study wherein the effectiveness of therapy homework was shown to increase with the addition of emotionally held beliefs as proposed in CFT (Harris & Hiskey, 2015). In the case study it was found that the benefits of the facilitation of challenging intellectually based beliefs through thought challenging and behavioural activation was limited to the clinic with little evidence of carryover to the client's daily life. However, the addition of an intervention based on emotionally based beliefs, in the form of facilitating learning within imagined safe interpersonal relationships, led to the client's processing beliefs and emotions which led to behavioural and emotional change. The authors emphasised the importance of considering both the cognitive and emotional experience of a client as they learn about themselves in clinical practice and propose in the title that 'it ain't what you say it's how it's said that counts' (Harris & Hiskey, 2015).

### 2.8.3 Dualist Perspective of AEE and FoC

Therefore, it may be that the dualist description of the processing of cognitions and emotions as described by Beck and Beck (2011) and Gilbert (2009), and presented in a clinical case example by Harris and Hiskey (2015), may be a way of understanding the unique contribution held by AEE and FoC in mental health. If this were the case, two models may help to better conceptualise AEE and FoC; Sappington's (1990) dualist cognitive processing theory and Epstein's (2003) cognitive-experiential self-theory (CEST). These models have been selected as they explicitly describe the dynamic relationship between cognitions and emotions. Sappington (1990) had earlier referred to this dualist viewpoint of cognitive and emotion processing when commenting on how emotional expression can facilitate increased self understanding via cognitive and emotional processing pathways. Sappington (1990) defined cognitive processing as intellectually based beliefs or attitudes

which are perceived as rational and factual, whereas emotionally based beliefs are subjectively perceived as nonrational and supported only by feelings or intuitions. Sappington reported that emotionally based beliefs were not affected by objective information. Thus, psychotherapy targeting dysfunctional emotional expression may benefit from focussing on both cognitive and emotional processing as evidenced by Harris and Hiskey's (2015) case example due to emotionally held beliefs not responding to objective rational contrary evidence.

Epstein's cognitive-experiential self-theory (CEST; 2003) is an integrative theory of personality and offers a similar perspective regarding the processing of information. Epstein (2003) proposes a conscious rational system and preconscious experiential system. The experiential system is said to be an evolved emotionally driven and is an organised and adaptive system developed through experiential learning, much like that seen in the many higher order animals. Epstein (2003) described how the experiential system encodes information from both individual events that were highly emotionally arousing, and from more general experiences in the form of narratives and metaphors. The rational system encompasses the culturally specific rules of reasoning that are internalised by people. The rational system is based on concrete and abstract reasoning and is unique to humans and is capable of reflection on the experiential system. Whilst both the experiential and rationale systems are cognitive, the experiential system is strongly related to affect as such can be considered an emotional-cognitive system.

### 2.8.3.1 Summary of FoC, AEE, and Dualist Theories

It is argued that perhaps a unique contribution from AEE and FoC to well-being may be understood by mapping AEE on to Sappington's (1990) cognitive/intellectual based processing pathway and Epstein's (2003) conscious rational system which are both largely based on cognitive learning about expression of emotion, whilst FoC may map onto Sappington's emotional processing pathway and Epstein's experiential system which are more associated with felt intuitions and sense of feeling. In support of this view negative AEE has been proposed to develop due to individuals learning that emotional expression is unacceptable or will have negative consequences (Haslam et al ., 2012). CFT proposed that it is a fear of experiencing or expressing positive affiliative emotions in a safe way that can be increased by abusive or neglectful interpersonal experiences, thus leads to an underactive soothing system and overactive drive and threat system. Therefore, whereas AEE focuses on a cognitive behavioural learning cycle based on behaviour outputs and negative reinforcement, FoC considers an individual's emotional sense of safety and security driven by emotion drive and motivational systems, which are inherent to being human but can also be shaped by attachment patterns.

## 2.9 Rationale for Thesis

In bringing together the ideas discussed so far, it is suggested that clinical psychology would benefit from assimilating the well-being principles of positive psychology into its practice where appropriate. Subjective well-being is the focus of this thesis due to the greater degree of consensus regarding the definition and measurement of it compared to psychological well-being, its relationship to psychological well-being as either a prerequisite

or outcome, and that subjective well-being is being used in governmental well-being initiatives. The therapeutic concepts AEE and FoC have been found to be associated with a range of distress in community and clinical samples. FoC and positive affect has been shown to be associated to a small degree, but subjective well-being was not measured in any study. AEE and well-being was reported not to be associated in a study of new parents, however, as the sample was such as specific group it is hard to generalise from these findings to regular community samples. As such, the current thesis wishes to explore the relationships that AEE and FoC have with subjective well-being and whether there are gender differences. Joseph and Wood (2010) suggest that the inclusion of tools to measure distress and well-being together will help clinicians in three ways: It will help them better understand the extent to which they are already working to increase well-being; it will help them to develop approaches which actively serve to promote well-being whilst alleviating distress; and finally it is hoped that a better understanding of such issues will help clinical psychologist make use of the empirical findings that well-being serves a preventative function against future psychopathology and relapse (Watson & Naragon-Gainey, 2010).

As already discussed, the theoretical perspective of mental health and subjective well-being is that it relies on the ability of an individual to approach emotional experience, be it positive or negative (Campos, 1994; Fischer, 2008; Ryff and Singer, 1998), as chronic emotional suppression has been linked to a variety of poor physical and psychological outcomes (Pennebaker, 1985). AEE and FoC are proposed as possible blocks to emotional expression and processing in two popular therapies, CBT and CFT. An aim of this thesis is to extend the knowledge in the area of how the transdiagnostic therapeutic concepts of FoC and AEE relate to subjective well-being. More specifically, as AEE and FoC have not been



directly compared in a single study it is unknown whether the concepts explain unique or shared variance in subjective well-being.

### 2.10 Hypothesis for the Thesis

1) More negative AEE will be associated with lower levels of subjective well-being. This is based on findings that negative AEE are associated with distress and are deemed to block emotional processing which is important to healthy adjustments.

2) More FoC will be associated with lower levels of subjective well-being. This is based on findings that FoC are associated with distress and are deemed to block interpersonal relationships which are important in well-being.

### 2.11 Exploratory Research questions

Gender differences in the relationships between AEE, FoC and well-being will also be investigated as the existing literature has not reached consensus on this.

Secondly, as it is not known how AEE and FoC will explain unique or shared variance in subjective well-being, an exploration of the relationships will be undertaken. The following exploratory questions will be posed:

- 1) Are FoC and AEE unique or overlapping in the variance explained in subjective well-being?
- 2) How much variance in subjective well-being do FoC and AEE separately account for?

3) How much do demographic variables explain the relationships between AEE, FoC, and well-being?

### 3. Methods

#### 3.1 Epistemology

The present study was driven by a critical realist epistemology (Bhaskar, 1978). Critical realism can be thought of as occupying the middle ground between positivism and constructivism (Schmidt, 2001). In short, positivism proposes that there is a true reality out there that is tangible and directly measurable (Popper, 1959), whilst constructivism argues that no objective reality exists out there that can be measured, instead there are multiple subjective realities constructed by the belief systems of individuals (Berger & Luckmann, 1991). Critical realism can therefore be described as drawing on a realist ontology with a relativist epistemology. That is, an objective reality exists but knowledge of it can only be estimated rather than perfectly detected due to the limitations on measurement.

Bhaskar (1978) proposed that three layers of reality exist, ‘the real’, ‘the actual’ and ‘the empirical’. ‘The real’ are the underlying mechanisms that are responsible for what we observe, yet these are unseen so can only be speculated on. ‘The actual’ refers to the observable events which are caused by the mechanisms in the real. Finally, ‘the empirical’ refers to the experience of the observer and the speculations they make about the real. The current study utilises a quantitative methodology to measure the relationships between FoC and AEE and subjective well-being. The study assumes that the attitudes participants self report, regarding to AEE, FoC and subjective well-being, reflect ‘the empirical’ layer of reality as it acknowledges that individuals’ reporting of internal experience is highly influenced by their interpretations of measures, as well as their attitudes and values towards their experience. For this reason ‘the real’ layer can be speculated on but not directly measured.

### 3.2 Design

The current research uses a cross-sectional correlational design. The dependent variable is subjective well-being, and the independent variables are FoC and AEE.

### 3.3 Procedure

#### 3.3.1 Recruitment Procedure

The study recruited a community sample of adults aged 18 years and older. Inclusion and exclusion criteria's were limited to an adult only sample as many of the measures were standardised on adult samples, thus only people aged 18 years or over could participate. The other inclusion criterion was that participants had to be English speaking as the questionnaires were only available in this language. In keeping with the theoretical underpinnings of the thesis having limited exclusion criteria meant that the community sample would likely represent a wide spectrum of mental health continuum.

Using snowball sampling, participants were invited to distribute questionnaires to other people once they had completed it. Adults of working age were recruited via the social and work networks of the researchers. Thus recruitment invitations were made to adults working at the University. Recruitment also used purposive techniques to maximise the likelihood of reaching a wide age range as previous research had predominately recruited student samples, particularly within the FoC literature. Older adults are underrepresented in research publications within the field of mental health (Witham & McMurdo, 2007). As such, attempts were made in the methodology to overcome the potential barriers to recruiting older adults as

reported by Hiskey and Edwards (2013) and Mody et al. (2008) such as accessibility. As such in the present study organisations working with older people such as Age UK, University of the Third Age branches, and pensioners associations and social clubs were approached and contacted via letter, telephone call and e-mail in the hope that this would negate the need for travel to a specific location other than somewhere already visited by potential participants. For each of these the local branch secretary or managers were contacted with information about the research before participants were given either the link to the online questionnaire or a paper copy. To ensure that those over 75 years old were represented drop-in centres providing services for those in this age range were contacted.

### 3.3.2 Study Procedure

The survey was designed on Qualtrics and was distributed using the Qualtrics online link survey via email. If participants had no access to computers, paper copies of the questionnaires were posted with Freepost addressed envelope included for returning completed questionnaires (addressed to the lead researcher at the Health & Human Science School, University of Essex).

Before the questionnaires were completed, participants were shown an information page (see appendix A) which outlined their rights as a participant, along with a brief discussion about the subject matter of the questionnaires, approximate time frame, and instructions on how to progress with the questionnaire.

Cassidy et al. (2001) proposed that within clinical research, ongoing support and building a sense of trust was important to older participants. The researchers' contact details

were given in case participants had any unanswered questions and the availability of the researchers was emphasised to increase a sense of support and trust. Participants gave consent by confirming that they had read a consent page (see appendix A).

A debrief sheet outlining help-points appeared at the end of the questionnaire (see appendix B). Contact details of the researchers were again given and people who might have been distressed were instructed to contact the team first in order for them to refer them on to an appropriate source of support. When participants had completed the questionnaires they were again asked to confirm their consent by either submitting their responses for the study or withdrawing from the study by closing the internet browser. Participants were then invited to share the link to the questionnaire with other people.

Jancey et al. (2006) reported that the decision making process to participate by older participants was influenced by whether written results would be provided and whether it seemed an opportunity for them to learn. Therefore, the benefit of learning about ones attitudes was clearly communicated on the information sheet. Also, for those who wished to receive written results, the opportunity to supply their email or postal address was given so as to facilitate the sharing of written results from the study.

The completed questionnaires were then electronically collated by the lead researcher. The data collected on the Qualtrics system was downloaded into a format compatible for SPSS. Responses to the paper questionnaires were inputted into the same SPSS file. No identifying information was entered into SPSS.

### 3.4 Measures

### 3.4.1 Dependent Variables of Subjective Well-being

#### 3.4.1.1 Positive and Negative Affect Scale (PANAS; Watson, Lee, & Tellegen, 1988).

The PANAS consists of 20 adjectives, each of which is rated on a 5-point scale from 1 (*very slightly or not at all*) to 5 (*extremely*). The mid-point is described as 'moderately'. 10 items contribute to the positive affect scale (e.g. enthusiastic, excited, and active) and 10 to the negative affect scale (e.g. upset and afraid). There are no questions regarding the participants' mental health in terms of suicidality or general mental health problems. The measure has been standardised with multiple temporal conditions, in this study to link up with other the instructions of other measures, participants are asked to think about how they have been feeling over the past few weeks when completing the scales, e.g., in the past few weeks have you been feeling Interested? (See appendix C)

From the original validation student sample the Cronbach's alpha's for the positive and negative scales are .89 and .85 respectively and show a clear two factor solution following factor analysis (Watson et al., 1988). Cronbach's alpha's were also found to be good, .85 for negative scale and .89 for positive scale in a larger community sample ( $n=1003$ ) with a greater age range 18 to 91 years.

Watson, Lee and Tellegen (1988) reported good convergent validity with distress measures in the form of medium to large correlations with the beck depression inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), the Hopkins Symptom Checklist (Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), and the State-trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970).

The authors of the scale created the PANAS through factor analysis of an initial 60 items of positive and negative affect as reported by Zevon and Tellegen (1982), before reducing it to 37 Items which loaded heavily on the positive or negative factor whilst also having a small secondary loading on the other factor were initially included (Watson, Clark, & Tellegen, 1988). This was reduced further to 10 items on each scale following reliability analysis.

The authors suggest that positive and negative affect represent two separate dimensions of mood. When used with temporal instructions of how one feels today it can reflect day to day fluctuations in mood, whereas when used with temporal instructions spanning months to a year it represents a more dispositional stable entity. In a recent review of well-being measures, Linton, Dieppe, and Medina-Lara (2016) categorise the PANAS as a measure of subjective well-being in that it calculates the extents one has experienced cognitive and emotional states. The PANAS reflects an aspect of subjective well-being in that it focuses solely on experience of emotional and cognitive states. The PANAS places positive affect and negative affect on separate continuum ranging from low to high. As such a low positive affect score represents a very low/or non-existent experience of positive affect but does not reflect any distress. Whereas, a high negative affect score represents a high degree of distress, but not necessarily a low level of positive affect. Both scores have to be interpreted on their separate continuums to comment on the overarching concept of subjective well-being as in order to conclude high subjective well-being, one would report low negative affect alongside high positive affect.

#### 3.4.1.2 Positive Functioning Inventory (PFI; Joseph & Maltby, 2014).



The PFI is a 12-item self-report tool developed to assess a spectrum of functioning ranging from distress to well-being. Participants are instructed to report how frequently they have felt a certain way over the past week including today. Items are rated on a four point Likert scale (never, rarely, sometimes and often) ranging from zero to three. Example items include 'I felt dissatisfied with my life', 'I felt happy', and 'I felt upset'. Higher scores indicate greater positive functioning. The highest possible score on the PFI-12 is 36 and indicates full endorsement of the six positively worded items (pleased, enjoyable, happy content, calm, relaxed) and a lack of endorsement of the six negatively worded items (dissatisfied, cheerless, meaningless, upset, tense, worried). Conversely, the lowest possible score of 0 would indicate a lack of endorsement of the positive items and full endorsement of the negative items (appendix D).

The authors report that in two samples comprising 242 (sample one) and 301 (sample two) undergraduates with age ranges of 18 to 47, internal consistency reliability was found to be acceptable .87 and .86 respectively. Test-retest reliability on sample two was .62 after a six month gap, suggesting the measure is moderately stable over time. The authors also report good convergent and discriminant validity in relation to a number of other measures of personality, social, physical and psychological functioning.

The PFI measures subjective well-being in that it has items on experience of positive and negative emotions, but also has items enquiring about the concept in subjective well-being of life satisfaction. Another aspect of the measure to consider is the theoretical perspective it takes in relation to distress and well-being. The authors propose that unlike the traditional categorical taxonomy of anxiety and depression as separate from normal experience, anxiety and depression are viewed as one end of the same continuum whilst at the

other end is calmness and happiness. Thus the dimension the measure creates is one of anxiety/depression – calmness/happiness. Joseph and Wood (2010) describe this type of a continuum approach as a strong lower order continuum as the concept of distress and well-being reside on a single continuum with no lower order aspects below it which are combined to create an overarching well-being score.

### 3.4.2 Measures of Independent Variables

3.4.2.1 Attitudes towards Emotional Expression Scale (AEE; Joseph, Williams, Irving, & Cammock, 1994)

The AEE is a 20-item self-report measure assessing negative AEE. Response options are on a 5-point Likert scale ranging between one-to-five that represents degree of agreement ‘disagree very much’ to ‘agree very much’. There is a ‘neither agree nor disagree’ middle response option. The responses can be summed to produce an overall score or analysed using the four subscales, with higher scores reflecting more negative AEE. All items are negatively worded so that a maximum score of 100 represents the most negative attitudes held about expressing emotions, whilst a score of zero represents the least negatively attitudes, however as all items are negatively worded it cannot be assumed that a score of zero represents positive AEE. Example items include ‘it is shameful for a person to display his or her weaknesses’ and ‘you should always hide your feelings’.

Factor analysis has shown that underneath an overarching total score, four factors exist which have been broken into four subscales. These refer to: beliefs about emotional expression being a weakness (weakness); that expressing emotion will lead to social rejection

(social rejection); views about having to always be in control of emotions (control); and using emotional suppression as a way to cope with strong feelings (bottling up) (Laghai & Joseph, 2000; Spokas et al., 2008). Joseph et al. (1994) suggests that bottling up represents a behavioural tendency of emotional suppression whilst the other three subscales represent cognitive components. One item from the bottling up subscale is reversed scored.

The internal consistency of the subscales has been reported as satisfactory ( $\alpha=.77 - .90$ ) within an undergraduate sample aged between 16-61 years old (Joseph et al., 1994; Laghai & Joseph, 2000). Good convergent validity was demonstrated by showing negative associations between the AEE and openness, agreeableness and extraversion scores from the NEO Five Factor Inventory in a sample of adults aged 16-81 years old (Costa & McCrae, 1992).

The measure built on a four item measure by Williams et al. (1993) which was designed for clinical work with patients who had experienced trauma. In line with the four item measure, the twenty item measure has added additional items in the aforementioned four subscales. The theoretical perspective underlying the design of the measure comes from the cognitive behavioural tradition and cognitive theory of post-traumatic stress. In line with cognitive behavioural theory, it is attitudes which shape interpretations of events which cause people to feel as they do, not the event per se (Beck, Emery, & Greenberg., 1985). Joseph et al. (1994) wanted to add specificity to the kind of dysfunctional assumptions often encountered in therapy. Within the cognitive theory of post-traumatic stress, dysfunctional attitudes regarding emotional expression can hinder the patients processing of traumatic events and keep them stuck in re-experiencing the trauma in a highly distressing way (Williams et al., 1993). The measure was therefore built with a view that negative AEE can

prolong distress and stop the healing process. Whilst it was not built specifically on a theory of well-being, cognitive behavioural theory provides a continuum of dysfunctional to functional with the assumption being that functional cognitions are required to live without distress.

#### 3.4.2.2 Fear of Compassion Scales (FoC; Gilbert, McEwan, Matos, & Rivas, 2011)

FoC consists of three scales assessing the nature of individuals' attitudes towards different aspects of compassion: expressing compassion for others (10 items), responding to the expression of compassion from others (15 items) and expressing kindness and compassion towards oneself (17 items). Responses are on a 5-point Likert scale ranging from 0-don't agree at all to 4-completely agree. The midpoint response set is 'somewhat agree'. The instructions ask the participant to rate the extent that they agree with the statements. Example items are 'I fear that being too compassionate makes people an easy target', 'wanting others to be kind to oneself is a weakness', and 'getting on in life is about being tough rather than compassionate'.

The scales can only be used separately with higher scores reflecting greater fears towards compassion which represents a higher level of potential resistance towards the experience of receiving or giving compassion. Each of the subscales produces a score which falls on a single continuum ranging from low to high levels of fears. The wording of the response set used means that a low score represents a low level or no fear towards compassion. However, it cannot be assumed that a low score necessarily reflects a positive view and embracing of compassion.

The scale was originally developed on samples of students with an age range of 18 to 59 years and therapists with an age range of 26 to 61 years. Internal consistency of the subscales was reported as good for students ( $\alpha=.84-.92$ ) and for therapists ( $\alpha=.76-.86$ ) (Gilbert et al., 2011). Within a clinical sample with an age range of 21 to 70 years of age, Gilbert et al., (2014) report Cronbach's alphas for compassion to self and to others were .93 and .91 respectively.

The measure was created when clinicians noticed that some patients found compassion would lead to avoidance or fear responses (Gilbert, 2010). It is theorised that positive emotional states can be conditioned to negative states (Arieti & Bemporad, 1980; Gilbert, 2010). Based on attachment theory (Bowlby, 1980), Gilbert (2005, 2010) focused on how affiliative emotions usually associated with interpersonal closeness can be conditioned following neglect or abuse in attachment relationships to lead to avoidance of or aversion to compassion. Whilst FoC was conceptualised within the context of abusive or neglectful attachments, the concept has been thought of as representing a dimension, thus levels of fears of compassion vary in the general population who may not have experienced neglectful or abusive attachment relationships per se. Gilbert's social mentality theory and three circles model (Gilbert, 2009, 2010) proposes that just by being human one has a tendency to fear compassion if unable to balance out the motivation for care versus competition and to regulate oneself to gain a healthy level of drive and soothing. In support of this the authors report small to medium correlations within a student sample between FoC and stress, anxiety and depression, thus suggesting a reasonable degree of convergent validity with distress.

#### 3.4.3 Demographics Questionnaire

Continuous data on age was collected and categorical data on gender, relationship status, living arrangements, ethnicity and nationality was collected.

### 3.5 Participants

#### 3.5.1 Power Analysis

The sample size for the regression analysis was estimated with the desired statistical power of 0.8 and a probability level of 0.05. Calculations were based on 11 predictors being entered into the model made up of the three FoC scales, the four AEE subscales, and the four demographic variables. The a-priori sample size calculator for multiple regression (enter procedure) was used (<http://www.danielsoper.com/statcalc3/calc.aspx?id=1>). Previous research exploring the relationship between AEE and psychological distress, such as anxiety, depression and PTSD, revealed small to medium effect sizes in correlations when using community samples (Haslam et al., 2012; Meyer et al., 2009; Spokas et al., 2009; Wong et al., 2006). Within community samples medium effect sizes have been reported previously between FoC and psychological distress including stress, depression and anxiety. Whilst it is not known whether the effect sizes between the two independent variables and distress will necessary correspond to well-being, the effect sizes provide the best estimate available based on the literature. Sample size calculations were conducted with both small and medium predicted effect sizes.

A sample of 122 was deemed to be sufficient for the anticipated medium effect size of .15, whilst 847 would be adequate for a small effect size of .02. The current study aimed for a sample of over 122 to ensure the analysis has sufficient power to find a medium effect. Only

those demographic variables shown to be significantly correlated with subjective well-being would be included in the regression analysis.

### 3.6 Ethical Considerations

Ethical approval was sought through the Faculty Research Ethics Board at the University of Essex. The application for ethical approval can be found in appendix G. To ensure the principles of respect for the autonomy and dignity of persons, scientific value, social responsibility, and maximising benefit and minimising harm are upheld, the ethical considerations outlined below are guided by the British Psychological Society Code of Human Research Ethics (BPS; 2014) and the Data Protection Act 1998.

#### 3.6.1 Informed Consent

In accordance with the BPS (2014) valid consent was sought to ensure that participants were well informed and freely able to participate and withdraw as they saw fit. On the electronic questionnaire, consent was assumed when participants checked before and after completing the questionnaires under the statement 'I have read the information about the study and consent to my responses being used in the ways stated'. Consent was deemed to be based on an informed decision as before completing the questionnaires the following information was outlined on an information sheet; withdrawal rights, outline of the subject matter, and the anonymity of data. On the paper copies of the questionnaires, informed consent was assumed when participants ticked a check box under the same statement stated on the electronic version as shown in appendix A the participant information sheet. A second level of informed consent was taken when the participant posted their completed

questionnaire back using the freepost address. Like on the electronic version the consent was deemed informed as a printed information and debrief sheet outlined their withdrawal rights, outline of the subject matter, and the anonymity of data. The specific aims of the research were not made explicit on either the electronic or paper version questionnaires. This was in order to limit the likelihood of social desirability in response patterns, however, the information sheet made it clear that the research was interested in helping therapists to better understand how people think about emotional expression and strong emotions.

### 3.6.2 Confidentiality and Data Storage

In accordance with the BPS (2014) and the Data Protection Act 1998, confidentiality was conserved to ensure that participants could trust that all of their information would be treated confidentially and not be identifiable. The main way of ensuring confidentiality was in the selection of measures that did not ask questions concerning high risk behaviours or intentions such as self-harm, harm to others, or suicidal ideation and intent. This ensured that responses to the questions on the measures would not lead to the principle of confidentiality having to be broken due to a duty of care to the participant or others felt to be in immediate danger of harm.

During data collection all electronic responses to questionnaires were securely stored on the password protected Qualtrics system. All paper copies of the questionnaires were kept in a locked cabinet within a locked university premises. During analysis the data was securely kept in a password protected SPSS document on a password protected computer. Paper questionnaires were checked for identifiable information and deletions were made as necessary. Responses from paper copies were inputted in to the same password protected



SPSS document. Once inputted as agreed in the ethics application the paper copies were shredded and put in confidential waste to minimise the chances of inaccurate data by storing data in one place. Some participants opted to give an email address so that they could receive a written copy of the results of the overall study. Email addresses were stored separately from the data on the password protected document and deleted once the results had been sent to them. The information sheet included details of how confidentiality, security and privacy of data would be ensured.

### 3.6.3 Right to Withdraw

The information sheet given to participants before beginning the questionnaire outlined their right to withdraw at any point during completion of the survey by either not giving consent or by closing the internet browser at any point during the study. The debrief information sheet again instructed participants of their rights to withdraw their data by closing the browser and not submitting their data. As the research was anonymous participants were also instructed that they could not request for their data to be withdrawn retrospectively, thus it was ensured that whether completing the electronic or paper copies their rights to withdraw were communicated at the start and end of the questionnaire battery.

### 3.6.4 Debriefing

As the study explored themes related to mental health it was felt particularly important that participants were given debriefs that clearly signposted agencies and services that participants could seek help from if they were affected by the themes in the questionnaires.

Participants were debriefed using a final information sheet (see appendix A). The information sheet thanked participants for their time and provided contact details of the research team and specifically stated that should they have felt affected or distressed as a result of completing the questionnaires they could contact the research team which consisted of the study supervisor and trainee clinical psychologist undertaking the project. In addition, links to relevant national services such as the NHS and MIND websites were given at the information sheet stage and debrief page so that participants knew their options prior to taking part in the study. Contact details including a postal address, email addresses, and telephone numbers were provided at both the information and debrief stage. The debrief also included sections on how confidentiality would be ensured, rights to withdraw from the study, a request to pass on the research study to friends and family, and how the results of the study would be disseminated.

### 3.7 Planned Data Analysis

Statistical analysis was undertaken using SPSS 21 (IBM, 2012). Descriptive statistics were presented for demographic, independent variables AEE and FoC, and for the dependent variable subjective well-being as measured by the PANAS and PFI.

#### 3.7.1 Planned Tests of Normality

Before conducting inferential statistics analysis testing for normality was conducted using a process set out by Field (2009). This involved Kolmogorov-Smirnov tests being performed which tests whether the observed distribution matches the hypothesised distribution. Field (2009) acknowledges that in large samples very small deviations from normality can result in significant K-S tests; therefore a review of histograms and p-p plots was also undertaken to check for normal distributions. If the parametric assumptions were not met, then non-parametric alternatives were applied. However, as multiple regression does not have a non-parametric alternative, transformation of the data would be considered where appropriate. Field (2009) outlines three transformations; log, square root, and reciprocal transformation. As advised all were conducted on a trial and error basis (Field, 2009).

### 3.7.2 Planned Bonferroni Adjustments

Bonferroni adjustments will be made is appropriate. Bland and Altman (1995) outlined the problem of running too many statistical tests on the same data that is not independent. They proposed that a statistically significant finding can be found in random data sets if enough testing is completed. When using the widely accepted five percent alpha level, it is suggested that numerous testing can reveal the statistically significant finding accounted by mere chance alone (Bland & Altman, 1995). When multiple independent tests are conducted on the same data with each data employing the .05 alpha value, the chance of one of the statistical results reaching the preset significance level is no longer .05, but instead is higher based on the formula  $\alpha = 1 - (1 - .05)^n$ . In this study, each dependent variable would have fifteen correlations. Following the aforementioned formula, the chance of at least one test being significant is .537 as opposed to .05. If the formula is applied to the entire correlation analysis proposed of 45 tests being run, the type I error increases to .901. To

correct for this, Bland and Altman (1995) suggest that Bonferroni adjustments be made to reduce the alpha level applied to each individual statistical analysis, so that the summed study wide type I error rate remains at .05.

### 3.7.3 Planned Correlations and Regression

Partial correlations were run to identify the shared and unique variance between the independent variables FoC and AEE, and the dependent variables PANAS and PFI. A partial correlation was calculated for each of the three FoC scales with PANAS and PFI scores, with the influence of AEE scales partitioned out. This led to 45 separate correlations being run to systematically explore the effect of AEE scales and FoC scales on well-being.

Correlations were run to explore relationships between study variables. A forced entry hierarchical multiple regression analysis was then run with each subjective well-being variable separately as the dependent variable (PANAS positive, PANAS negative, and PFI). Independent variables were FoC self, FoC to others, and FoC from others, as well as the AEE variables (control, social rejection, weakness, and bottling up). Demographic variables which were significantly correlated with any of the dependent variables were included in the regression and controlled for by including them in block one. A forced entry hierarchical regression model enables the researcher to choose which variables to enter at each block of the regression, thus allows for the demographic variables to be controlled for and all AEE and FoC to be entered to explore their unique power to explain variance. The stepwise method of regression allows the statistical programme to pick the independent variables with the highest partial correlations with the dependent, and add them sequentially at each step. Whilst stepwise regression has a useful role in exploratory analysis, when being led by existing

theory, hierarchical regression allows the researcher to run analysis on variables which are predicted to be associated theoretically (Menard, 2000).

### 3.8 Dissemination of Results

Following approval, this thesis will be available in the library at the University of Essex and an abstract available in the International Thesis Abstracts database. In September 2017 a lay-persons summary of the findings will be presented on the website address given on the debrief page. The link of the website will be shared with all participating organisations and newspapers involved in recruitment. A paper copy of the summary will also be shared with the participating community groups and sent to participants who requested it. In addition, the research will be submitted to relevant journals (e.g. ‘British Journal of Clinical Psychology’; ‘Psychology and Psychotherapy Theory, Research and Practice’). Presentations will be aimed for at the Compassion Mind Foundation Conference, the British Psychological Society Division of Clinical Psychology Annual Conference, and the British Association for Behavioural and Cognitive Psychotherapies Conference. At a local level, a poster presentation will be given to the local special compassion focused therapy special interest group.

## 4. Results

This chapter will first present descriptive statistics for the sample. It will then check and outline the normality of the distribution of values within the variables tested. Following this, in line with the study hypothesis appropriate correlational and multiple regression analysis will be presented.

#### 4.1 Descriptive Statistics

##### 4.1.1 Descriptive Statistics for Demographic Variables

There were 331 participants in the sample, with 77 males (22.4% of sample) and 257 females (77.6% of sample). Due to the possible gender bias inherent in the unbalanced sample, where appropriate results are given by gender in the following analysis.

Overall attrition rates are not possible to calculate as no records were kept of non-responders who took paper copies of the study. However, on the electronic questionnaires, 327 began the questionnaire and 257 completed it, thus 70 people were non-responders representing 21%.

A wide age range was represented in the sample as shown in table 2. The kurtosis value is indicative of a platykurtic distribution suggesting that whilst the mean age of the sample was 50 years, there was a good spread across the lower and higher age ranges. A histogram of the distribution of the ages of participants can be found in the appendix D. Despite the overrepresentation of females in the sample, there is very little difference in the average age of males and females as shown in table 1.

Table 1

*Descriptive Statistics for Age for Total Sample and by Gender*

Variables	<i>N</i>	M (years)	SD	Min.	Max.	Skewness	Kurtosis
Total	331	50.07	16.19	18	89	.01	-.94
Male	74	51.14	18.11	18	87	-.119	-1.30
Female	257	49.68	15.59	18	89	.049	-.79

The majority of the sample reported being in a relationship with a partner, with 50% being in a marriage/civil partnership and 18% having a partner. The minority of the sample reported being currently single, with 11.4% having never been in a legally binding relationship, 10.4% having been divorced, 5.4% having been widowed, and 2.4% reported being recently separated. Taken more generally, over two thirds of the sample was currently in a relationship. The missing data was 2.4%.

Over two thirds of the sample reported living in their own home with other people (68.4%). The next most common living arrangement was living in one's own home alone (28.3%). Other living arrangements were represented in the sample, 2.7% reported 'other' living arrangements, whilst one participant was currently homeless (0.3%). Missing data was limited to one participant (0.3%).

The majority of the sample reported their ethnicity as White British (90.4%). White other was the next most frequently occurring ethnicity (5.1%). Participants reporting that they belonged to a mixed ethnic group were the next commonly occurring (1.5%). Asian British, Asian other, Black other, Other were reported by two participants each (0.6%), whilst Black British was reported by one participant (0.3%). There was one piece of missing data (0.3%). The sample was skewed to a white population; as such it is not representative of the general UK population.

To aid the inclusion in correlational analysis, ethnicity, relationship status, living arrangements were dichotomised as the distribution between the nominal categories was unequal, with some having only one data point. Majority groups within each demographic category were created with all minority groups being summed together. Counts of the dichotomised variables of being in relationship or single, living with others or living alone, are presented in table 2.

Table 2

*Percentages of Dichotomised Demographic Variables by Gender*

Demographic	Percentages		
	Total	Male	Female
<b>Relationship Status</b>			
In a relationship	68.7%	79.2%	67.5%
Single	29.2%	20.8%	32.5%
<b>Living Arrangements</b>			
With others	68.4%	79.2%	67.9%
On own	28.6%	20.8%	32.1%
<b>Ethnicity</b>			
White British	90.7%	97.3%	88.7%
Other Ethnicity	9.3%	2.7%	11.3%

## 4.1.2 Descriptive Statistics for Subjective Well-Being

All of the subjective well-being measures were slightly bound in score ranges as shown in table 3. For example scores on the PFI represented the highest score indicating the greatest level of well-being, but the lowest score of zero was not represented. Skewness scores on the PANAS scales and PFI indicate that scores are weighted towards greater



subjective well-being, which is to be expected when using a non-clinical community sample.

Kurtosis values reveal that the PFI had a slight platykurtic distribution, whilst PANAS scales had leptokurtic distributions.

Table 3

*Descriptive Statistics of Subjective Well-being by Gender*

Variables	N	M	SD	Range	Cronbach's Alpha	Skewness	Kurtosis
PANAS							
Positive							
Total	331	3.41	.68	1.20 to 5.00*	.859	-.49	.25
Male	74	3.41	.60	1.90 to 4.70	.817	-.33	-.07
	257	3.41	.70	1.20 to 5.00	.869	-.53	.15
Female							
PANAS							
Negative							
Total	331	1.97	.72	1.00 to 4.30*	.876	.90	.32
Male	74	1.94	.75	1.00 to 3.80	.891	.74	-.39
	257	1.98	.71	1.00 to 4.30	.873	.96	.56
Female							
PFI							
Total	331	24.09	7.03	3.00 to 36.00**	.916	-.66	-.17
Male	73	24.30	7.15	7.00 to 36.00	.921	-.47	-.42
	257	24.03	7.02	3.00 to 36.00	.915	-.72	-.10
Female							

\*possible PANAS mean score range 1-5

\*\*possible PFI score range 0-36

To examine the current sample's scores on well-being measures compared to other samples recruited in the literature, means were contrasted and t-tests were conducted. When

significant t-test results were found these are presented. The current sample had a higher mean average PFI score ( $M=24.09$ ,  $SD=7.03$ ) compared to the community sample ( $M=20.20$ ,  $SD=3.7$ ) recruited by Joseph and Maltby (2014). Further t-test analysis revealed this difference to be statistically significant; therefore the current sample reported a higher level of well-being on this measure than reported by the measures authors. It is worth noting that the mean age of the comparison sample ( $M=20$  years) was much lower than the current sample ( $M=50$  years) and as found in this study age was positively associated with PFI thus the higher mean well-being score is likely to be due to the different age ranges recruited in the studies. The PANAS positive mean average for the current sample ( $M=3.41$ ,  $SD=.68$ ) was similar to that reported in community standardisation sample ( $M=3.20$ ,  $SD=.70$  using the same temporal instructions of a few weeks) by Watson, Lee, and Tellegen (1988). Mean average PANAS negative score in the current sample ( $M=1.97$ ,  $SD=.72$ ) was also similar to the community standardisation sample ( $M=1.95$ ,  $SD=.70$ ) reported by Watson, Lee, and Tellegen (1988).

To ascertain whether there were statistical differences in subjective well-being means by gender, t-tests were conducted. None of the gender differences in the mental subjective-being scores reached statistical significance, and as such, the sample was not separated by gender in the subsequent regression analysis.

#### 4.1.3 Descriptive Statistics for AEE and FoC

Descriptive statistics for the independent variables are presented in table 4. The entire score range was observed in AEE control and AEE bottling. All other continuous variables with a score range were bounded to some degree. AEE social rejection and AEE weakness had scores reflecting the lower limits but not the upper limit of 25, instead 24 and 21 respectively. Therefore the sample did not reflect those who may endorse the most negative attitudes in these domains. Within the FoC scales, all included scores at the lower extreme of zero, but none contained scores at the upper extremes. In other words, those reporting the least fears towards compassion were represented whilst the most fears towards compassion were not observed in the sample. All AEE and FoC scales had positive skewness indicating that scores are weighted towards lower FoC and less negative AEE as would be expected in a community sample. Kurtosis values reveal that AEE control, AEE social rejection, and FoC to others have platykurtic distributions, whereas all other FoC and AEE scales have leptokurtic distributions.

Table 4

*Descriptive Statistics of AEE and FoC for Total Sample*

Variables	<i>N</i>	<i>M</i>	<i>SD</i>	Range	Cronbach's Alpha	Skewness	Kurtosis
AEE Total	312	48.52	12.52	21*-86*	.918	0.50	.28
AEE control	312	11.72	3.72	5-25**	.791	0.55	-.03
AEE	312	9.01	3.08	5-21**	.806	0.86	.73
Weakness							
AEE social	312	13.18	3.90	5-24**	.783	0.14	-.26
rejection							
AEE bottling	312	14.61	4.58	5-25**	.866	0.22	.28
FoC self	315	10.58	9.90	0-42***	.915	1.03	.30
FoC from others	322	10.22	8.62	0-39****	.897	1.10	.68
FoC to others	331	11.94	6.98	0-35*****	.849	0.55	-.08

\*possible ATEE total score range 20-100

\*\*possible ATEE subscale score range 5-25

\*\*\*possible FoC self score range 0-68

\*\*\*\*possible FoC from others score range 0-60

\*\*\*\*\*possible FoC to others score range 0-68

Comparisons of the means for AEE were made with the community student sample reported by the measure's author (Joseph et al., 1994). The current sample had a similar AEE mean average score ( $M=48.52$ ,  $SD=12.52$ ) to the community student sample ( $M=45.03$ ,  $SD=12.75$ ) recruited by Joseph et al. (1994). Comparisons of means per AEE subscale revealed that the current sample held slightly more negative attitudes in all of the subscales compared to the original standardisation sample (Joseph et al., 1994). T-test analysis was conducted to ascertain the statistical significance of differences between the current sample and Joseph et al.'s (1994) original sample. For control the current sample ( $M=11.72$ ,  $SD=3.72$ ) reported significantly more negative attitudes than the community student sample ( $M=8.94$ ,  $SD=3.50$ ) recruited by Joseph et al. (1994). For social rejection the current sample ( $M=13.18$ ,  $SD=3.90$ ) reported statistically more negative attitudes than Joseph et al.'s (1994)

community sample ( $M=10.62$ ,  $SD=3.27$ ). The same pattern of statistically significant difference was seen in the current samples mean average for weakness ( $M=9.01$ ,  $SD=3.08$ ) compared to Joseph et al.'s (1994) sample ( $M=6.39$ ,  $SD=2.73$ ) and for bottling up ( $M=14.61$ ,  $SD=4.58$ ) compared to the lower score from comparison sample ( $M=12.21$ ,  $SD=4.60$ ).

Comparisons of mean FoC scale scores with other community samples were conducted and t-test analysis was conducted. The current sample had lower mean average scores on all of the FoC scales than compared to the community student sample recruited by Gilbert et al. (2011). The biggest difference was between the mean average for FoC for others in that the current sample had a lower mean ( $M=11.94$ ,  $SD=6.98$ ) compared to the student sample ( $M=21.18$ ,  $SD=6.71$ ), a difference that was deemed statistically significant in t-test analysis. However means did not differ statistically speaking for FoC for others when comparing to the smaller group of therapist in the community sample ( $M=10.51$ ,  $SD=5.36$ ) who had a wider age range and higher mean age than the student sample. FoC self mean average of the current sample ( $M=10.58$ ,  $SD=9.90$ ) was statistically lower than Gilbert's (2011) student sample ( $M=16.12$ ,  $SD=10.38$ ) suggesting that again the current sample held less fear about self-compassion. Again though the current samples mean was not statistically different from the therapist sample in Gilbert et al.'s (2011) study ( $M=8.15$ ,  $SD=6.51$ ). Mean average for FoC from others followed the similar pattern with the current sample ( $M=10.22$ ,  $SD=8.62$ ) having a statistically significant lower mean than Gilbert's et al. (2011) student sample ( $M=7.78$ ,  $SD=7.81$ ), however, did not differ significantly from the therapist sample ( $M=8.81$ ,  $SD=7.41$ ). The pattern across of all FoC scales of lower means than the original student sample but more similar to the original therapist sample could either be a sign of social desirability bias in the current sample or a reflection of the methodological limitation that research on FoC has often recruited student samples. It could also be that the current

sample recruited from NHS teams amongst other sources; therefore a proportion of participants may appear similar to the therapist sample recruited by Gilbert et al. (2011). However, this was not possible to explore further as occupation was not collected in the demographic questionnaire.

Descriptive statistics for AEE and FoC are presented by gender in table 5.

Independent samples t-tests were conducted on all independent measures by gender.

Independent samples t-test found that men ( $M=51.578$ ,  $SD=12.162$ ) endorsed significantly more negative AEE than women ( $M=47.614$ ,  $SD=12.505$ ),  $t(310)=2.362$ ,  $p=.019$ . Men were also found to hold significantly more negative attitudes about control of emotional expression ( $M=12.592$ ,  $SD=3.736$ ) than women ( $M=11.461$ ,  $SD=3.685$ ),  $t(310)=2.265$ ,  $p=.024$ . It was also found that men reported a greater tendency to bottle up emotion ( $M=15.859$ ,  $SD=4.731$ ) than women ( $M=14.245$ ,  $SD=4.481$ ),  $t(310)=2.634$ ,  $p=.009$ . All other independent measures were found not to significantly differ by gender.

Table 5

*Descriptive Statistics of AEE and FoC by Gender*

FoC, AEE and Subjective Well-Being

	<u>N</u>		<u>Mean (SD)</u>		<u>Range</u>		<u>Cronbach's</u> <u>Alpha</u>	
	Male	Female	Male	Female	Male	Female	Male	Female
AEE	71	241	51.58(12.16)*	47.61(12.51)	25-	21-84	.920	.916
Total					86			
AEE	71	241	12.59(3.74)	11.46(3.69)	5-21	5-25	.808	.783
Control								
AEE	71	241	9.28(3.14)*	8.93(3.07)	5-21	5-18	.818	.803
Weakness								
AEE	71	241	13.85(3.18)	12.98(4.03)	6-21	5-24	.701	.797
Social								
rejection								
AEE	71	241	15.86(4.73)**	14.25(4.48)	7-25	5-25	.912	.848
Bottling								
FoC self	72	243	10.53(9.29)	10.60(10.09)	0-32	0-42	.907	.917
FoC to	74	257	12.87(7.37)	11.67(6.86)	0-30	0-35	.867	.844
Other								
FoC from	72	251	10.57(8.17)	10.12(8.77)	0-35	0-39	.877	.902
Other								

\*t-test significant to p=.05 level

\*\*t-test significant to p=.01 level

Within the FoC literature gender differences were reported in five studies (Joeng & Turner, 2015; Gilbert et al., 2011, 2012, 2013; Miron et al., 2015). Two found no gender differences on FoC scores (Joeng & Turner, 2015; Miron et al., 2015), two community sample studies reported that men scored higher on subscales of the FoC self and from others (Gilbert et al., 2011, 2012), and one study reported a small correlation in that females scored higher than men of fears of compassion from others (Gilbert, 2013). Of note is that all studies had suffered from a gender bias in that females made up the majority of the sample, more specifically between 69% to 82% (Miron et al., 2015; Gilbert, 2013). The current study also suffered from a gender bias in the same direction.

## 4.2 Testing Normality

### 4.2.1 Skewness of Variables

As skewness and kurtosis varied across variables and to ascertain the appropriateness of parametric or nonparametric tests Kolmogorov-Smirnov tests were performed. Kolmogorov-Smirnov compares the observed distribution to the hypothesised distribution (Field, 2009). A non-significant result means that the observed sample is deemed to be normally distributed, whereas a significant test shows that the observed sample is not normally distributed. The results shown in table 6 reveal that none of the raw data variables had a normal distribution. Field (2009) does concede that in large samples very small deviations from the normality can result in significant K-S tests; therefore a review of histograms and p-p plots was undertaken. Review of these showed that the variables did indeed look not normally distributed. Example histogram and P-P plots are presented in the appendix E. Non parametric tests were used where they existed, for example the Spearman's correlation was used instead of Pearson's correlation coefficient. However, as multiple regression does not have a non-parametric alternative, transformation of the data was considered.

### 4.2.2 Transformation of Data

Field (2009) outlines three transformations; log, square root, and reciprocal transformation. It is advised that all are tried on a 'trial and error' basis and tests of normality are run again at each step. As PFI and PANAS positive were negatively skewed a reverse score transformation was first undertaken. Because some of the scales had minimum scores of zero, a constant of one was added prior to the log and reciprocal transformations. Table 6



shows that all distributions remained non-normal, except the square root transformation for AEE total. However, as the AEE subscales remained non-normal after the square root transformation it was decided not to take this transformation any further. As such, partial correlations and multiple regressions would be run on the raw data and examination of the assumptions underlying the regression models will be conducted to see what impact these non-normal distributions had on the reliability of the models.

Table 6

*Kolmogorov-Smirnov (K-S) Tests for Independent and Dependent Variables for Raw Data and Transformations*

FoC, AEE and Subjective Well-Being

Variable	<u>Raw data</u>		<u>Log transformation</u>		<u>Reciprocal transformation</u>		<u>Square root transformation</u>	
	K-S statistic	K-S Sig	K-S statistic	K-S Sig	K-S statistic	K-S Sig	K-S statistic	K-S Sig
PANAS positive	.08	P<.001	.07	P=.001	.12	P<.001	.07	P=.001
PANAS negative	.11	P<.001	.08	P<.001	.07	P=.001	.09	P<.001
PFI	.12	P<.001	.10	P<.001	.25	P<.001	.06	P=.016
FoC to others	.08	P<.001	.12	P<.001	.26	P<.001	.06	P=.004
FoC from others	.14	P<.001	.08	P<.001	.26	P<.001	.05	p=.041
FoC self	.16	P<.001	.09	P<.001	.25	P<.001	.07	P=.002
AEE total	.07	P<.001	.05	P<.001	.11	P<.001	.05	P=.065*
AEE weakness	.14	P<.001	.08	P<.001	.14	P<.001	.10	P<.001
AEE social rejection	.06	P=.016	.10	P<.001	.16	P<.001	.08	P<.001
AEE control	.13	P<.001	.08	P<.001	.14	P<.001	.10	P<.001
AEE bottling	.10	P<.001	.09	P<.001	.12	P<.001	.08	P<.001

\*non significant K-S test showing normality in distribution

#### 4.3 Correlations between AEE, FoC and Subjective Well-Being

As the aforementioned distributions are deemed non-normal, non-parametric

Spearman's Rho correlations were used to explore the associations between the dependent

and independent variables. Cohen's (1992) qualitative descriptions of correlation strength were used to aid interpretation. Coefficients between 0.1 to 0.29 were deemed small, those between .3 to .49 were considered medium, and those .5 and above were considered large.

Two way correlations for the total sample can be seen in table 7 and correlations by gender are presented in table 8. In the following sections, noteworthy correlations will be discussed, first those between negative AEE and well-being, before those between FoC and well-being.

FoC, AEE and Subjective Well-Being

Table 7

*Spearman's Rho Correlations between Dependent and Independent Variables for Total Sample*

Variable	PFI	PANAS positive	PANAS negative	FoC self	FoC to others	FoC from others	AEE total	AEE social rejection	AEE control	AEE weakness	AEE bottling
PFI		.516**	-.737**	-.518**	-.038	-.486**	-.309**	-.422**	-.111*	-.243**	-.228**
PANAS positive			-.282**	-.277**	-.106*	-.256**	-.330**	-.341**	-.221**	-.272**	-.238**
PANAS negative				.494**	.026	.466**	.249**	.374**	.061	.218**	.169**

\*Significant to .05 alpha level

\*\*Significant to .001 alpha level

FoC, AEE and Subjective Well-Being

Table 8

*Spearman's Rho Correlations between Dependent and Independent Variables for Females bottom left (n=241) and Males top right (n=74)*

	PFI	PANAS positive	PANAS negative	FoC self	FoC to others	FoC from others	AEE total	AEE social rejection	AEE control	AEE weakness	AEE bottling
PFI	x	.400**	-.748**	-.500**	.047	-.547**	-	-.441**	-.121	-.211*	-.393**
PANAS positive	.400**	x	-.149	-.274*	-.098	-.172	-.360**	-.269*	-.231*	-.305**	-.374**
PANAS negative	-.749**	-.373**	x	.392**	-.155	.426**	.374**	.378**	.008	.083	.224*
FoC self	-.528**	-.354**	.540**	x							
FoC to others	-.049	-.092	.101		x						
FoC from other	-.500**	-.329**	.509**			x					
AEE total	-.344**	-.338**	.341**				x				
AEE social rejection	-.443**	-.373**	.438**					x			
AEE control	-.178**	-.221**	.169**						x		
AEE weakness	-.300**	-.296**	.356**							x	
AEE bottling	-.209**	-.224**	.175**								x

\*Significant to .05 alpha level

\*\*Significant to .001 alpha level

#### 4.3.1 Correlations between AEE and Subjective Well-being

One-way Spearman's Rho correlations presented in tables 7 and 8 revealed that more negative AEE were associated with lower levels of subjective well-being. However, some differences were observed between the measurements of well-being as well as between the AEE subscales and gender subsamples.

When focusing on the PFI, more negative AEE were associated with lower levels of PFI. Attitudes surrounding social rejection were negatively associated with a medium effect size. Attitudes concerning control showed a smaller effect size with PFI, which was in part due to the smaller effect size in males.

Correlations for positive affect, within the male and female samples, show that more negative AEE were associated with less positive affect being experienced. For females, negative attitudes concerning social rejection was the strongest associated AEE variable to positive affect with medium effect sizes. However, for men AEE bottling was the strongest correlations with positive affect.

Correlations for negative affect show that more negative AEE in all subscales apart from AEE Control were associated with more negative affect. The non-significant correlation between AEE control and negative affect may be due in part to the difference in gender, in that whilst it was a non-significant small effect size for males there was a small significant correlation for females. Other gender differences were also noted. Within the male sample, a small non significant effect size was found between AEE weakness and negative affect, whereas for women there was a medium sized relationship. Whilst the male sample was smaller so correlations are less likely to reach statistical significance, there seems to be a difference in effect sizes for males and females. For both genders,

AEE social rejection was most strongly correlated to negative affect with a medium effect size. The results enable the hypothesis to be accepted, though some gender differences are important to note.

#### 4.3.2 Correlations between FoC and Subjective Well-being

Correlations presented in tables 7 and 8 revealed that more FoC were associated with lower levels of subjective well-being. However, some differences were observed between the measurements of well-being as well as between the FoC scales and gender subsamples.

Within the PFI, whilst large correlations were observed in both genders with FoC self and FoC from others, FoC self was most related to PFI for women, whereas for men it was FoC from others that was most related to PFI. No significant relationship was found with FoC to others across both genders.

Correlations between positive affect and FoC within the whole sample revealed small significant associations with all of the FoC scales. However, correlations differed by gender. When FoC to others was analysed separately in the male and female samples, the relationship with positive affect was non-significant in both samples. Additionally, the relationship between FoC from others and positive affect was non-significant within the male sample but not the female sample. Within the female sample, the strongest relationship was a medium correlation between FoC self and positive affect, whilst for men it was a small correlation between the same variables.

Analysis of correlations within the whole sample between negative affect and FoC show medium relationships between FoC self and negative affect, and FoC from others and negative affect. FoC to others and negative affect was not found to have a significant relationship within both genders. Further analysis by gender revealed that for men FoC from others had the strongest

relationship with negative affect, whilst for women the relationship between FoC self and negative affect was the largest. However, of note was that correlations between FoC self and negative affect, and FoC from others and negative affect were within the large range for women.

In summary, the hypothesis can be partially accepted in that greater FoC in the flows of ‘to self’ and ‘from others’ were strongly associated with lower levels of subjective well-being. FoC to others was not found to be significantly associated with subjective well-being. Gender differences were observed, for example, for women FoC self was the strongest correlations with all subjective well-being measures, whereas, for men FoC from others was the strongest in two of the subjective well-being measures (PFI and negative affect).

#### 4.4 Unique Variance in Well-being explained by FoC and AEE

##### 4.4.1 Correlations between FoC and AEE

Two-way Spearman’s Rho correlations presented in table 9 revealed that FoC from others and FoC self were positively correlated to all AEE scales with a medium or large size. The large effect size was observed between AEE social rejection and FoC self and from others. FoC to others was positively associated with a medium effect size to all AEE scales, except bottling wherein the significant association was of a small effect size. These relationships show that generally the greater the fears towards compassion in any flow, the more negative AEE are held. The size of correlations provides support that FoC and AEE are related but are distinct concepts as none of the correlations are strong enough to suggest multicollinearity. It is possible that associations between the AEE, FoC and subjective well-being measures are due to overlapping variance between AEE and FoC;



therefore, partial correlations were conducted to explore the unique contributions to subjective well-being of AEE and FoC in a more robust manner.

Table 9

*Spearman's Rho Correlations between AEE and FoC for Total Sample*

Variable	AEE total	AEE control	AEE social rejection	AEE weakness	AEE bottling
FoC self	.510*	.347*	.526*	.403*	.373*
FoC to other	.388*	.354*	.309*	.366*	.266*
FoC from other	.571*	.390*	.555*	.426*	.455*

\*Significance at level .01 level

#### 4.4.2 Partial Correlations of FoC and AEE with Subjective Well-Being

Partial correlations were used to examine the individual unique variance explained in the relationships of FoC and specific AEE subscales and subjective well-being when controlling for the overlapping variance explained by the other AEE subscales. As 45 separate correlations were required to systematically analyse the unique and shared variance in the dependent variables accounted for by the independent variables FoC and AEE, Bonferroni correction was considered. In the current study, when the Bonferroni adjustment formula is applied, the adjusted statistical significance alpha is .003 or .001, for 15 and 45 statistically procedures respectively (Bland & Altman, 1995). However, following the critique of Bonferroni adjustments (Perneger, 1998; Rothman, 1990) it was decided not to use just the Bonferroni adjustment as it was deemed too much of a mechanistic adjustment to the alpha value. Instead a combination of integrating statistical

findings with prior held beliefs to explain unexpected findings and reduce type II errors (Perneger, 1998) alongside using the type I error rate of .01 to reduce type I errors, was followed.

#### 4.4.2.1 Partial Correlations of FoC and Well-being when Controlling AEE

Partial correlations presented in table 10 for FoC from others and well-being measures, controlling for AEE scales, did not reveal remarkably different results from bivariate correlations. This is to say that when the AEE scales were controlled for, FoC from others was still found to be associated with well-being measures. This suggests that FoC from others and AEE scales have direct relationships to well-being as opposed to spurious or overlapping relationships. The exception to this was the association between FoC from others and AEE social rejection and Positive Affect. Whilst the Bivariate correlation between FoC from others and Positive Affect was of a statistically significant negative small strength, when AEE social rejection was added in the partial correlation, the relationship between FoC from others and Positive Affect was no longer statistically significant to the .01 level. These results suggest that FoC from others and AEE social rejection explained shared variance in their relationship to Positive Affect.

Table 10

*Bivariate and Partial Correlations between FoC, AEE for Well-Being Variables.*

Variable	<u>Positive Affect</u>		<u>Negative Affect</u>		<u>PFI</u>	
	Bivariate	Partial	Bivariate	Partial	Bivariate	Partial
FoC to other	-.106*		.026		-.038	
AEE total		.050		-.114*		.134*
AEE weakness		.020		-.099		.097
AEE social		.018		-.118*		.129*
rejection						
AEE control		-.008		-.032		.049
AEE bottling		-.026		-.029		.047
FoC from others	-.256**		.466**		-.486**	
AEE total		-.129*		.399***		-.408***
AEE weakness		-.186***		.406***		-.444***
AEE social		-.129*		.331***		-.354***
rejection						
AEE control		-.240***		.489***		-.503***
AEE bottling		-.227***		.466***		-.473***
FoC self	-.277**		.494**		-.518**	
AEE total		-.178**		.421***		-.418***
AEE weakness		-.218***		.427***		-.449***
AEE social		-.172**		.362***		-.369***
rejection						
AEE control		-.272***		.501***		-.503***
AEE bottling		-.265***		.481***		-.479***

\*Significance at level .05

\*\*Significance at level .01

\*\*\*Significance at level .001

As shown in table 10, partial correlations for FoC self and well-being when partitioning out AEE scales, did not differ from the Bivariate correlations. This suggests that FoC self and AEE

scales have direct and unique relationships with well-being variables as opposed to spurious or intervening relationships.

As shown in table 10, bivariate and partial correlations for FoC to others revealed that its association with all well-being measures were non-significant at the  $p < .01$  level. In other words there is no statistically reliable association between FoC to others and well-being measures.

#### 4.4.3 Regression Models of Well-being

Now that the independent variables FoC and AEE are deemed to be distinct concepts, regression models were run to determine which independent variable has the strongest relationship with the dependent variables PANAS and PFI.

Correlational relationships between well-being variables and Age and Gender alongside dichotomised demographic variables of relationship status (in a relation or single), living arrangements (live with other or live alone) and ethnicity (White British or Other ethnicity) are presented in table 11. Demographic variables that were statistically significantly related to the well-being measures were included in the relevant regression models.

Table 11

Two-Way Spearman's Rho Correlations between Demographic Variables and Well-Being.

	Age	Gender	Relationship Status	Living Arrangement	Ethnicity
Positive Affect	.124*	.016	-.100	-.057	-.057
Negative Affect	-.338**	.037	.105	.029	-.069
PFI	.254**	-.010	-.201**	-.083	.023

\*Significant at the .05 level

\*\* Significant at the .01 level

#### 4.4.3.1 Regression Model of Positive Affect

As shown in table 11 Age had a small and significant positive correlations with Positive Affect, therefore it was controlled for in the multiple regression exploring the predictive value of AEE and FoC on PANAS positive as shown in table 12.

Table 12

*Multiple Regression Examining the Relationships between PANAS positive and FoC and AEE, when Controlling for Age.*

	B	SE B	B	P
<b>Model 1</b>				
Age	.005	.002	.118	P=.038*
<b>Model 2</b>				
Age	.002	.002	.057	P=.304
FoC to others	.005	.006	.049	P=.400
FoC from other	-.001	.007	-.008	P=.927
FoC self	-.011	.005	-.158	P=.046*
AEE Weakness	-.023	.017	-.108	P=.117
AEE Social rejection	-.035	.013	-.204	P=.008**
AEE Control	.012	.014	.065	P=.421
AEE Bottling	-.013	.010	-.089	P=.200

$R^2_{adj}=.011$  for Model one;  $R^2_{adj}=.151$  for Model two ( $ps < .001$ ).

\*Significance at level .05

\*\*Significance at level .01

Hierarchical regression was used to analyse the effect of FoC and AEE on positive affect when controlling for Age. Using the forced entry blocking procedure, model two was able to explain 15% of the variance ( $R^2=.173$ ,  $R^2_{adj}=.151$ ) which was an improvement from the 1% explained by model one ( $R^2=0.14$ ,  $R^2_{adj}=.011$ ). The F statistic showed that model two was statistically significantly better than using the mean as a model,  $F(8,302)=7.87$ ,  $p<.001$ . The F statistic for model one was also statistically significant  $F(1,309)=4.36$ ,  $p=.038$ . Of note is that Age became non-significant in model two suggesting that the inclusion of FoC and AEE better explains the variance in positive affect than this demographic factor.

Significant contributions from predictors are shown in table 12 and only came from AEE social rejection ( $B=-.204$ ) and FoC self ( $B=-.158$ ). As a number of variables were non-significant, combined with the finding that 85 percent of variance is explained by other variables not measured in this thesis, the model is not deemed to be highly efficient in predicting positive affect.

There were 11 outliers identified as having residuals over 2SD's, however Cooks Distance, Mahalanobis distance and leverage showed their influence to be non-significant so they were kept in the analysis. Durbin-Watson statistic showed that the assumption of independent errors was met as the statistic was close to two (Field, 2009). A check of the residuals found them to be randomly distributed along the line of best fit. Review of correlations showed there to be no correlations exceeding .8, a cut off used to identify possible multicollinearity (Field, 2009). Variance Inflation Factors (VIF) were less than 10, a cut off posited by Lorch and Myers (1990) to raise concern of multicollinearity. A further test of multicollinearity reviewed tolerance levels, which were found to all be greater than the 0.2 threshold identified by Menard (2000). Normality of residuals was reviewed via histogram and p-p plots, and the assumption of random errors and homoscedasticity were reviewed via plots of \*ZRESID against \*ZPRED (see appendix E). Linearity was assessed using scatter plots (See appendix E). As all of the tests for the stability of the model met the necessary levels, it can be assumed that the regression model is robust enough and not biased by individual cases.

#### 4.4.3.2 Regression Model of Negative Affect

As shown in table 11 Age had a medium sized and significant negative correlations with Negative Affect, it was controlled for in the multiple regression exploring the predictive value of AEE and FoC on PANAS Negative as shown in table 13.

Table 13

*Multiple Regression Examining the Relationships between FoC and AEE and Negative Affect when Controlling for Age.*

	B	SE B	B	P
<b>Model 1</b>				
Age	-.014	.002	-.322	P<.001***
<b>Model 2</b>				
Age	-.008	.002	-.187	P=.001***
FoC to others	-.014	.005	-.132	P=.008**
FoC from other	.016	.006	.192	P=.010**
FoC self	.021	.005	.298	P<.001***
AEE Weakness	.025	.016	.111	P=.103
AEE Social rejection	.037	.012	.205	P=.002**
AEE Control	-.037	.013	-.199	P=.004**
AEE Bottling	-.004	.009	-.027	P=.655

$R^2_{adj}=.101$  for Model one;  $R^2_{adj}=.375$  for Model two ( $p<.001$ ).

\*Significance at level .05

\*\*Significance at level .01

\*\*\*Significance at level .001

Hierarchical regression was used to analyse the effect of FoC and AEE on Negative affect when controlling for Age. Using the forced entry blocking procedure, model two was able to explain 38% of the variance ( $R^2=.391$ ,  $R^2_{adj}=.375$ ) which was an improvement from the 10% explained by model one ( $R^2=.104$ ,  $R^2_{adj}=.011$ ). The F statistic showed that model two was statistically significantly better than using the mean as a model,  $F(8,302)=24.280$ ,  $p<.001$ , thus showing it to be a useful model in understanding Negative affect. The F statistic for model one and two were both statistically significant. Age remained a significant predictor in both models.



Significant contributions from predictors are shown in table 13 and came from, in order of amount of variance explained from highest to lowest, FoC self ( $B=.298$ ), AEE social rejection ( $B=.205$ ), AEE control ( $B=-.199$ ), FoC from others ( $B=.192$ ), Age ( $B=-.187$ ), and FoC to others ( $B=-.132$ ). Bottling and AEE weakness were not significant predictors in the model.

There were 16 outliers identified as having residuals over 2SD's, however Cooks Distance, Mahalanobis distance and leverage showed their influence to be non-significant so they were kept in the analysis. Durbin-Watson statistic showed that the assumption of independent errors was met as the statistic was close to two (Field, 2009). A check of the residuals found them to be randomly distributed along the line of best fit. Review of correlations showed there to be no correlations exceeding .8, a cut off used to identify possible multicollinearity (Field, 2009). Variance Inflation Factors (VIF) were less than 10, a cut off posited by Lorch and Myers (1990) to raise concern of multicollinearity. A further test of multicollinearity reviewed tolerance levels, which were found to all be greater than the 0.2 threshold identified by Menard (2000). normality of residuals was reviewed via histogram and p-p plots, and the assumption of random errors and homoscedasticity were reviewed via plots of \*ZRESID against \*ZPRED (see appendix E) and there were some concerns of positive skew, thus the regression model can only be assumed to reflect this sample distribution only.

#### 4.4.3.3 Regression Model for PFI

As shown in table 11 Age had a small and significant positive relationship with PFI, and Relationship status had a small and significant negative correlation with PFI, both were controlled

for in the multiple regression exploring the predictive value of AEE and FoC on PFI as shown in table 14.

Table 14

*Multiple Regression Examining the Relationships between PFI and FoC and AEE, when Controlling for Age and Relationship Status*

	B	SE B	B	P
<b>Model 1</b>				
Age	.015	.024	.238	P<.001***
Relationship status	-3.783	.838	-.246	P<.001***
<b>Model 2</b>				
Age	.039	.021	.088	P=.063
Relationship status	-3.518	.686	-.229	P<.001***
FoC to others	.147	.050	.142	P=.004**
FoC from other	-.170	.061	-.209	P=.006**
FoC self	-.212	.049	-.296	P<.001***
AEE Weakness	-.123	.155	-.054	P=.427
AEE Social rejection	-.447	.117	-.247	P<.001***
AEE Control	.392	.129	.207	P=.003**
AEE Bottling	-.061	.090	-.040	P=.494

$R^2=.106$  for Model one;  $R^2_{adj}=.417$  for Model two ( $ps < .001$ ).

\*\*Significance at level .01

\*\*\*Significance at level .001

Hierarchical regression was used to analyse the effect of FoC and AEE on PFI when controlling for Age and Relationship status. Using the forced entry blocking procedure, model two

was able to explain 42% of the variance ( $R^2=.434$ ,  $R^2_{adj}=.417$ ) which was an improvement from the 11% explained by model one ( $R^2=.112$ ,  $R^2_{adj}=.106$ ). The F statistic showed that model two was statistically significantly better than using the mean as a model,  $F(8,302)=24.280$ ,  $p<.001$ , thus showing it to be a useful model in predicting PFI. Model one's F statistic was also significant,  $F(2,300)=18.192$ ,  $p<.001$ . Relationship status remained a significant predictor in both models, whilst age was only significant in model one.

Significant contributions from predictors are shown in table 14 and came from, in order of amount of variance explained from highest to lowest, FoC self ( $B=-.296$ ), AEE social rejection ( $B=-.247$ ), Relationship status ( $B=-.229$ ), FoC from others ( $B=-.209$ ), AEE control ( $B=.207$ ), and FoC to others ( $B=.142$ ). Age, AEE bottling and AEE weakness were not significant predictors in the model. Relationship status was coded in a way that the minus standardised beta coefficient can be interpreted to mean that being in a relationship was predictive of higher PFI scores.

There were 17 outliers identified as having residuals over 2SD's, however Cooks Distance, Mahalanobis distance and leverage showed their influence to be non-significant so they were kept in the analysis. Durbin-Watson statistic showed that the assumption of independent errors was met as the statistic was close to two (Field, 2009). A check of the residuals found them to be randomly distributed along the line of best fit. Review of correlations showed there to be no correlations exceeding .8, a cut off used to identify possible multicollinearity (Field, 2009). Variance Inflation Factors (VIF) were less than 10, a cut off posited by Lorch and Myers (1990) to raise concern of multicollinearity. A further test of multicollinearity reviewed tolerance levels, which were found to all be greater than the 0.2 threshold identified by Menard (2000). Normality of residuals was reviewed via histogram and p-p plots, and the assumption of random errors and homoscedasticity were reviewed via plots of \*ZRESID against \*ZPRED (see appendix E). Linearity was assessed

using scatter plots (See appendix E). As all of the tests for the stability of the model met the necessary levels, it can be assumed that the regression model is robust enough and not biased by individual cases. All checks of bias and assumptions were conducted and yielded no causes for concern.

#### 4.4.3.4 Summary of Regression Models and Partial Correlations

The use of partial correlations aimed to ascertain whether and how much the relationships between FoC and AEE, and well-being was unique or overlapping. Partial correlations for FoC from others and well-being measures, controlling for AEE scales, showed that in all relationships except one, FoC from others and AEE scales have direct relationships to well-being as opposed to spurious or overlapping relationships. The exception was that FoC from others and AEE social rejection seemed to be intervening in their relationship with Positive Affect. Partial correlations for FoC self and well-being when partitioning out AEE scales, suggest that FoC self and AEE scales have direct and unique relationships with well-being. Bivariate correlations showed that the relationship between FoC to others and well-being was not strong enough to meet the  $p < .01$  level.

Analysis of the data using multiple regressions aimed to ascertain the role of demographic data in the relationships between FoC, AEE and well-being. Multiple regressions also allowed for the identification of the FoC and AEE scales which explained the most variance in well-being. The regression model for Positive Affect explained 15% of variance with AEE social rejection and FoC self being the only significant predictors in the model. With this said, AEE social rejection and FoC self provided a better explanatory model than age alone. Age was a significant predictor in model one but became a non-significant predictor in model two.

The regression model for Negative Affect explained 38% of variance. All of the FoC scales were significant predictors in the model, and AEE social rejection and AEE control were the significant predictors from the AEE scales. The greatest contributors to variance came from AEE social rejection and AEE control, followed by FoC self. Bottling and AEE weakness were not significant predictors in the model. Again, significant AEE and FoC subscales provided a better model of predicting negative affect than age alone. Age remained a significant predictor in both models. Checks of the impact of outliers and normality revealed that the regression model for negative affect should not be generalised outside of similar sampling groups.

The regression model for PFI explained 42% of variance, thus was the best fitting model out of those tested. FoC self was the predictor explaining the most variance. Again all of the FoC were significant predictors in the model, but AEE social rejection and control provided the greatest contributions to the variance explained. Age, AEE bottling and AEE weakness were non significant predictors. The significant AEE and FoC scales were able to explain more variance in PFI than age and relationship alone. Age was significant in model one but became a non significant predictor in model two, whilst relationship status remained a significant predictor in both models.

## 5. Discussion

The chapter will begin by revisiting the wider context that the research is positioned in. A summation of the hypotheses will then be given. Following this, results will be outlined in relation to the three research hypotheses and considered in the context of the relevant literature and clinical practice. After this the strengths and limitations of the study will be discussed in an attempt to guide future research. Implications of the study to clinical practice, theory and research will then be offered. Finally, personal reflections regarding the experience of conducting the research will then be shared.

### 5.1 Revisiting the Context of the Study and Hypotheses

The value placed on fostering of well-being as well as the reduction of distress has been recognised within the positive psychology literature (Seligman et al., 2005), at a service level in the creation of IAPT and well-being services following the health economics arguments presented by Lord Layard (2006). Governmental initiatives have also emerged for the measurement of the well-being of populations alongside more traditional measures of Gross Domestic Product (Tinkler, 2015). The combination of these factors has presented opportunities for the profession of Clinical Psychology to continue to assimilate and accommodate the principles of positive psychology and well-being into practice in order to guide and provide the mental health services that are wanted by different stakeholders.

Within the broad area of emotion and well-being, the first set of aims centred on two transdiagnostic concepts from popular therapeutic approaches, FoC from Compassion Focused Therapy, and AEE from Cognitive Behavioural Therapy. The aims were to explore the relationships

of FoC and AEE with subjective well-being. Both FoC and AEE were already known to be associated with distress, but neither concept had had their relationships with subjective well-being explored. Gender differences were also investigated in line with the discrepancies reported in the existing literature.

The third aim of the study was to ascertain whether FoC and AEE were in fact independent of each other in their relationships with subjective well-being. Exploratory research questions were explored. Both concepts relate to the ability or unwillingness of an individual to experience and express emotions. However, AEE focuses on a cognitive behavioural learning cycle based on the cognitive behavioural principles of negative reinforcement and punishment, whereas FoC considers an individual's experience of safety and security driven by an emotion drive/motivation system which is inherent to being human but also can be shaped by attachment patterns. Therefore, it remained unclear as to how the constructs of FoC and AEE converged and diverged. The results relating to each of the three hypotheses will be discussed in turn.

## 5.2 AEE and Subjective Well-being

The transdiagnostic concept of negative AEE was known to be associated with distress in community samples (Joseph et al., 1994; Lowery & Stokes, 2005; Spokas et al., 2009; Wong et al., 2006) and clinical samples (Joseph et al., 1997; Quale et al., 2009). It has also been shown in prospective studies to predict PTSD (Nightingale & William, 2000) and has been found to mediate between life events and distress (Surgenor & Joseph, 2000) as well as between invalidating childhood experiences and eating disorder psychopathology (Haslam et al., 2012). Previous literature had not explored the relationship between AEE and subjective well-being, however, if distress and

well-being fall on the same mental health continuum, it was predicted that AEE and subjective well-being would be negatively correlated (the opposite to the positive correlations reported with distress).

It was found in the current study that more negative total AEE was associated with more negative affect, and less positive affect and subjective well-being. In other words negative AEE and poorer subjective well-being were associated with each other. However, there were differences in associations between individual subscales and subjective well-being measures, which may be accounted for by gender. Before discussing subscale and gender differences more fully, the major finding that AEE is associated with positive affect and PFI will be placed within the existing literature.

The finding that AEE is negatively associated with subjective well-being differs from the one study previously to report data on this matter. The previous study found no association between AEE and subjective well-being in a purposeful sample of first time parents during the perinatal stage (Castle et al., 2008). Possible reasons for the difference in findings could be the different participant groups sampled and/or the different measures used. The major difference in the studies is that the current study recruited a community sample whereas Castle et al. (2008) recruited a very specific perinatal stage sample, a life event that is known to be high in stress and often emotionally salient. Additionally the sample of new parents recruited by Castle et al. (2008), also had a lower mean age and smaller standard deviation (Females  $M=30.7$ ,  $SD=3.8$ , Males  $M=32.9$ ,  $SD=5.1$ ) than the current sample (Females  $M=49.68$ ,  $SD=15.59$ , Males  $M=51.14$ ,  $SD=18.11$ ) and were all in relationships compared to 69% of the current sample. Both age and relationship were found to be significantly correlated to PFI in the current study thus differences in sample demographics may explain the different findings regarding AEE and well-being. The four item AEE measure was used, which is likely to have a higher floor and lower ceiling effect than the 20 item measure used in this thesis. The



well-being measure used by Castle et al. (2008) was the General Well-being Questionnaire (Bradley & Lewis, 1990). The General Well-being Questionnaire differs from the PFI as it does not include items on life satisfaction and meaning. The measure was also designed for use with type-II diabetes patients within a health psychology setting, therefore differing from the PFI which was created for a general community sample. As the current study recruited a broader community sample than Castle et al. (2008) and used more general measures of subjective well-being, the current study's findings are worthy of note when considering the relationship between AEE and well-being in the general population.

### 5.2.1 Discussion of AEE and Well-being

In terms of understanding why AEE is associated with positive affect and PFI as well as negative affect, one can utilise the theoretical origins of the AEE concept as well as the cognitive notion of emotional expression more generally. One way of understanding the relationship between AEE and subjective well-being is through the existing literature on cognitive emotional regulation, specifically the tendency for emotional suppression. The following discussion should be considered within the context that the current study was cross-sectional correlational research, thus causation cannot be inferred nor can specific models be empirically supported. However, insights drawn from the models and theories discussed can aid in understanding the study's results.

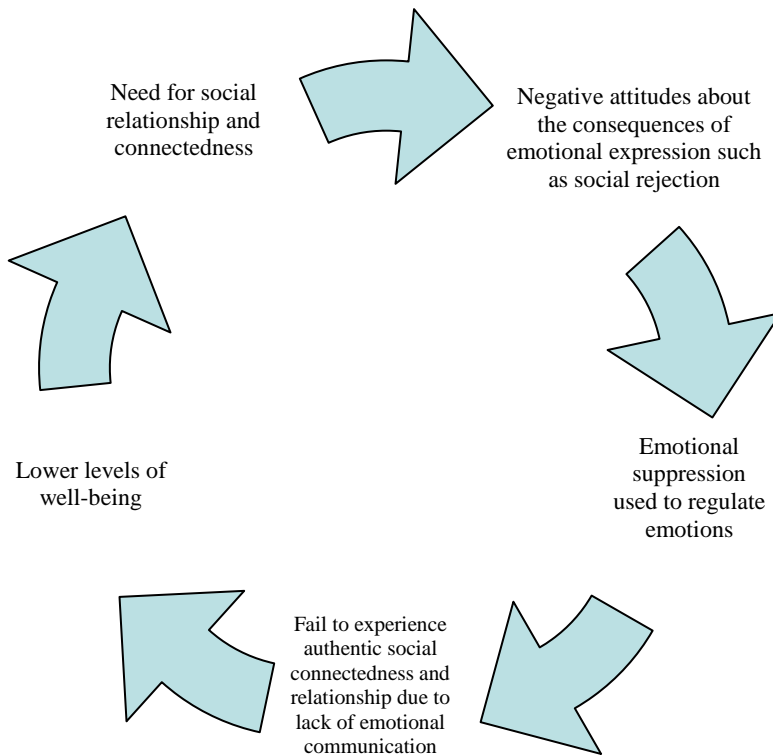
#### 5.2.1.1 The Role of Cognitions and Emotional Suppression in Well-being

The role of cognitions in emotional regulation is outlined in Kennedy-Moore and Watson's (1999) five step cognitive evaluation model of emotional expression and non-expression. This model suggests that at the latter steps an evaluation of emotional experience in terms of personal beliefs and

standards occurs. Negative attitudes concerning emotional expression or the perception that one lacks socially accepted opportunities to express emotions in an adaptive way is posited as a barrier to emotional autonomy and a forced choice of emotional non-expression, or in other words emotional suppression. Pennebaker (1985) outlined the negative consequences of chronic emotional suppression, suggesting that as suppression is considered to be effortful and leads to a stress response in autonomic activity, it is associated with poorer health outcomes. The AEE is underpinned by the assumption that emotional suppression, as measured by the behavioural subscale bottling, is associated with poorer mental health. Joseph et al. (1994) drew from the cognitive model of distress (Beck, Emery, & Greenberg, 1985) to focus on the cognitively held dysfunctional beliefs regarding the fears of what emotional expression might mean to individuals. The AEE is also based on the findings that a tendency to suppress emotion leads to poorer outcomes due to a reduced ability to seek social support (Barnett & Gotlib, 1988); Joseph et al., 1994)

Barnett and Gotlib (1988) proposed that regardless of its aetiology, a tendency to restrict social interaction/support is a vulnerability factor in the development of psychopathology and distress. Results from the current study could be understood within a similar relationship as suggested by Barnett and Gotlib (1988) whilst also drawing from Seligman's PERMA model (2011) which highlights the role of social relationship and connectedness in well-being. The individual analysis of the relationships between AEE subscales and well-being shows that AEE social rejection showed the strongest negative relationship to PFI for the whole sample. This may be an example of a vicious cycle, as shown in figure 2, whereby in an attempt to maintain the need for social relationships, people suppress their emotions due to fears that emotional expression will lead to social rejection, but in doing so, people may experience subsequently experience lower levels of well-being, perhaps due to lack of authentic social support/relatedness as suggested in the PERMA model (Seligman, 2011). This is one interpretation of the results and AEE social rejection will be

discussed further in relation to a different cognitive behavioural technique to consider its significance in relation to other AEE scales.



*Figure 2* Vicious cycle of negative AEE and well-being based on Cognitive Behaviour Theory and PERMA model (Seligman et al., 2006).

#### 5.2.1.2 Cognitions about Social Rejection and Well-being

The findings of AEE social rejection being a strong correlate out of the subscales and control being a weaker and often non-significant correlate will be discussed in the context of the literature. Previous research comparing AEE subscales is restricted to those exploring the relationship between AEE subscales and measures of distress, namely, depression (Joseph et al., 1994) and eating disorder psychopathology (Meyer, Leung, Barry, & De Feo, 2009). Joseph et al. (1994) reported in a community student sample that social rejection and weakness were the strongest correlates out of the

subscales to self-reported depression scores. Meyer, Leung, Barry, and De Feo (2009) found that weakness had the strongest correlation amongst the subscales with eating disorder psychopathology. Therefore, there is some consensus that attitudes concerning social rejection may be a stronger correlate of well-being compared to other subscales; however, there may be differences depending on the measure of distress or well-being used, particularly when considering psychopathology as opposed to direct measures of distress or well-being. This is the first study to suggest that attitudes towards social rejection are the strongest subscale in terms of their strength of relationship with subjective well-being. As the study is cross-sectional and correlational research causation cannot be shown.

The finding that AEE social rejection is a strong correlate of subjective well-being as well as distress is somewhat consistent with previous community research. Seligman's et al. (2006, 2011) PERMA model of happiness includes the need for strong authentic social relationships, whilst DeWall et al. (2012) support the evolutionary view of social membership and highlight the reliance on social groups for humans to flourish. Whilst it can be argued that in modern societies people can meet their basic needs to survive physically, subjective well-being would be assumed to be poor in those living solitary lives not by choice. It can be useful to consider the different AEE scales and integrate it within the cognitive behaviour technique of the downward arrow. The downward arrow technique aims to ascertain the most distressing personal meaning accompanying a negative thought which causes the thought to be experienced as particularly distressing. In this case it is argued that the AEE social rejection is linked to poorer mental health than compared to the other AEE scales.

In the downward arrow technique, as shown in figure 3 a person is thought to reflect on a distressing thought or reasoning and consider that if the thought were true what would that mean. The AEE has been described by Wong et al. (2006) as scales representing beliefs about meaning

(AEE weakness), beliefs about expression (AEE control), behavioural style (AEE bottling), and beliefs about consequences (AEE social rejection). It is suggested that the feared consequences of social rejection are the ultimate fear based on the evolutionary perspective of the role of emotions in facilitating relationship and cooperation (DeWall, 2012). Once again, the PERMA positive psychology model can be drawn upon to help understand this finding in that one's need for social relationship is considered a core part of well-being.

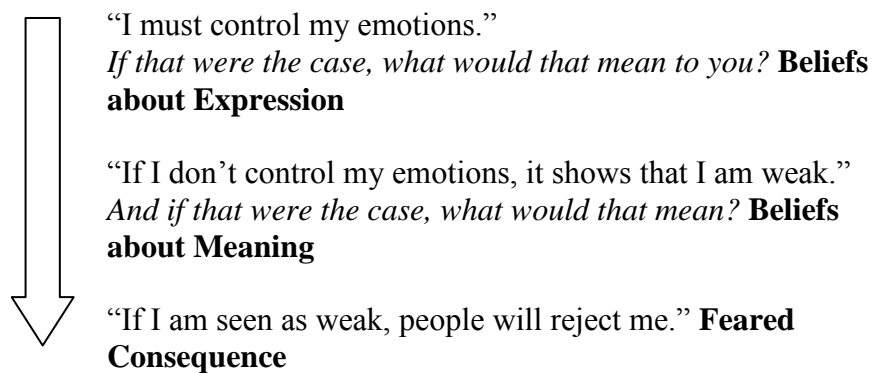


Figure 3 Downward arrow technique considering AEE subscales

#### 5.2.1.2.1 Evolutionary Basis of Social Rejection

Findings from a neuropsychological study exploring the way social rejection is experienced adds further support to the notion that the feared consequence of social rejection may have evolutionary origins that explain why it may be the most associated AEE scale to well-being. Eisenberger, Lieberman, and Williams (2003) used fMRI techniques to show that when people experience social rejection they experience increased neuronal activity in regions of the brain involved in the experience of physical pain. The researchers assigned participants to a control and experimental group and whilst in an fMRI scanner both played a virtual game of catch with two virtual players. In the experimental group the players started to exclude the participant from the game

whilst in the control group they were included for the entirety of the game. At the point of exclusion from the virtual game, participants in the experimental group were shown to have increased activity in the dorsal anterior cingulate and the anterior insula, a finding which the researchers concluded that social rejection is experienced in a similar way to physical injury. DeWall (2012) suggested that from an evolutionary perspective, humans have seemed to co-opt the system of physical pain to also respond to socially painful events, reflecting the importance of social relationship.

#### 5.2.1.3 AEE Control and Well-being

Attitudes about control were consistently found to hold the smallest correlations with well-being. Joseph et al. (1994) reported in the student sample that control was not statistically significant in its relationship with depression. The control subscale is a measure of how much one thinks that emotions should be kept under control. Compared to the other subscales which focus on perhaps the feared consequences of emotional expression, for example, the rejection by others or the sense of personal weakness, the control subscale focuses on attitudes concerning the self-imposed rules, or as Kennedy-Moore and Watson (1999) put it the 'should, oughts and musts' of emotional expression, as opposed to the feared consequences. The control subscale is the strongest correlate, out of the other cognitive subscales, to the behavioural tendency bottling subscale. This suggests that more attitudes endorsing a desire to control emotions are positively associated with a greater behavioural tendency to bottle up or suppression emotions. However, there were gender differences that will now be discussed.

#### 5.2.2 Gender Differences in AEE Subscales and Well-being

It was found that the male sample, unlike the female sample, negative attitudes about control were not associated with level of PFI. For both genders, AEE social rejection was the strongest

associated variable to PFI and negative affect. For women AEE social rejection was the strongest related to positive affect, whereas for men AEE weakness was the strongest related to positive affect. Negative AEE control was the least correlated with any of the well-being measures, particularly for men where its relationship was non-significant with PFI and negative affect.

#### 5.2.2.1 Theoretical Explanations of Gender Differences

Perhaps the most striking finding in relation to gender is that AEE control for women was consistently associated to a statistically significant degree with all well-being measures, whereas for men AEE control was only associated with positive affect. Analysis of interviews with men and women about emotions found that women spoke about the need to control emotions twice as much as men (Lutz, 1996). Lutz (1996) suggested that a narrative of emotional control for women may represent the internalised wider cultural narrative that women are more 'emotional' than men, that emotion is irrational and dangerous, thus in response women may feel a strong need to control emotion to prove they are not the irrational beings they are often stereotyped to be (Heesacker et al., 1999; O'Neil, 1981). The finding that, especially for men negative AEE control is not associated with measures of subjective well-being other than positive affect, suggest that AEE control holds a unique relationship with the experience of positive affect. This raises the possibility that different AEE subscales could hold different uses depending on whether at different points of time the focus is to alleviate negative affect compared to fostering positive affect. The current data suggests that negative AEE social rejection may be a more common factor in subjective well-being when conceptualised as low negative affect, high positive affect, and high subjective well-being. Contrary to this, AEE control may be more useful when focusing on positive affect alone. However, there also appears to be important gender differences within the AEE subscales and relationships with well-being which will now be discussed.

In the current study, men were found to endorse more negative AEE total, AEE weakness and AEE bottling beliefs than females. Levels of AEE social rejection and control did not differ across the genders. A previous study reported a small effect size that newly expectant fathers, reported more negative AEE than newly expectant mothers when using the four item AEE (Castle et al., 2008). Unfortunately, subscale scores were not able to be reported by Castle et al. (2008) as the four item version of AEE was used, thus comparison at the subscale level is not possible. However, there is a literature on the expectations placed on men due to the social construction that suggests that it is not masculine and is a sign of weakness to express emotions (Cutrona, 1996; Wong et al., 2006).

### 5.2.3 Summary of Discussion of AEE and Well-being

In summary, this is the first study to present evidence that AEE are correlates of subjective well-being. It is also the first to suggest that attitudes concerning AEE social rejection are of particular importance in subjective well-being when comparing AEE scales. This finding was understood using the evolutionary perspective (DeWall, 2012) and PERMA model from positive psychology (Seligman, 2006), which both advocate the need for social relationship and connectedness. Gender differences were also revealed which suggests that consistent with previous findings men hold more negative AEE total, AEE control may be more important to women than men. Both differences could be due to cultural stereotypes of gender and emotion.

### 5.3 FoC and Subjective Well-being

FoC, in the flows of to self and from other have been consistently found to be related to psychology distress in clinical and community samples (Gilbert et al., 2011, 2012; Joeng & Turner, 2015; Miron et al., 2015) whilst FoC to others has been less studied but found to be less associated



with distress. However, there was no previous research explicitly exploring associations with subjective well-being, but a few studies providing inconsistent evidence of a relationship with positive affect. The results from the current study showed that greater FoC in the flows of ‘to self’ and ‘from others’ was strongly associated with lower levels of subjective well-being. However, FoC to others was not found to be significantly associated with subjective well-being. Gender differences were observed, for example, for women FoC self was the strongest correlation with all subjective well-being measures, whereas, for men FoC from others was the strongest in two of the subjective well-being measures (PFI and negative affect). For each flow of compassion a more detailed discussion will be laid out.

### 5.3.1 FoC Self and Subjective Well-being

FoC self consists of a sense that compassion is not deserved, or is a sign of weakness (Gilbert & Procter, 2006). This study showed that the greater the FoC self the lower level of subjective well-being reported, with effect sizes in the medium to large range. This association was particularly strong for the measure of subjective well-being measuring positive, negative affect and life satisfaction. Associations between FoC self and negative affect are consistent with the already established links with distress such as anxiety, stress and depression (Gilbert et al., 2011, 2012; Joeng & Turner, 2015; Miron et al., 2015), but associations with PFI and positive affect add to the literature.

### 5.3.2 FoC From Others and Subjective Well-being

FoC from others concerns a fear of the affiliative emotions such as affection and care which are proposed to be the building blocks of secure attachments and positive feelings about the self and

others (Gilbert et al., 2011). It was found that the greater the fears of compassion from others the lower levels of reported subjective well-being. This finding is consistent with the literature which reports associations between FoC from others and anxiety, stress and depression (Gilbert et al., 2011, 2012; Joeng & Turner, 2015; Miron et al., 2015). The finding adds to the limited literature exploring positive emotion states (Gilbert et al., 2012) by evidencing that FoC from others is also associated with lower subjective well-being, more negative affect, and as well less positive affect.

### 5.3.3 FoC For Others and Subjective Well-being

FoC to others did not yield any statistically significant relationships with subjective well-being measures. This is consistent with Gilbert et al.'s (2011) findings within his therapist subsample, but differed from the student sample which revealed small yet significant correlations with stress, anxiety and depression scores. Similar in all of the samples was that FoC to others tended to have smaller correlations with distress or subjective well-being measures as compared to FoC self and FoC from others. Gilbert et al. (2011) found stronger correlations between FoC self and FoC from others and concluded that these concepts likely measure a more general difficulty in experiencing affiliative emotions, as opposed to FoC to others which may operate through a different process such as prosocial motivations or moral values. With this in mind it is likely that the literature on social desirability bias may be relevant (Fisher, 1993) as FoC to other is the only FoC scale to focus on the behaviour of self to other, thus may be more prone to anxieties of being perceived as a 'bad' person by the experimenter (Fisher, 1993).

#### 5.3.4 Summary of FoC and Subjective Well-being

In summary, the associations between FoC self and FoC from others suggests that individuals with greater fears may struggle to experience affiliative emotions generated by the self or from others, and that this negatively impacts on all aspects of subjective well-being; positive affect, negative affect, and PFI. However, gender differences were observed and will be discussed in more depth.

#### 5.3.5 Gender Differences in FoC and Well-being

There were gender differences that reveal that FoC from others for men was not associated with levels of positive affect, whereas for women it was. It could conclude from this that for men the amount of positive affect experienced is impacted solely by fear of self compassion, whereas for women it is a combination of fears of compassion to self and from others. Comparisons of mean averages showed that men and women did not vary in their levels of FoC across all flows. Other gender differences between FoC scales suggest that it is the FoC in the flow from others that is most associated with lower subjective well-being and more negative affect, whereas it is the FoC self that is the strongest correlate for all well-being measures. As correlations between FoC self and FoC from others are highly correlated in the current study and in previous research (Gilbert et al., 2011), it is not appropriate to over analyse this results as the two flows of compassion likely operate within the same process.

In summary, women's FoC self is a stronger correlate to subjective well-being whilst FoC from others is strongest for men. However, caution is advised in this interpretation as the two concepts are highly inter-correlated as already said, but also that like in previous research there was a

strong female bias in the sample. When considering the separate aspects of the PERMA model from positive psychology (Seligman et al., 2006) it is not surprising that FoC was most associated to the PFI measure as opposed to a measure of positive affect alone, as unlike the PANAS, the PFI potentially taps into multiple facets of the PERMA model. FoC self and FoC from others are highly inter-correlated and thus as previous research has suggested likely share similar underlying processes in the facilitation or blocking of the individual experiencing affiliative emotions generated within or by others in a more positive well-being increase manner.

Alongside gender differences, relationships between FoC and Well-being varied by measure used. As the PFI yielded the strongest associations with FoC it will now be discussed.

#### 5.3.5 Discussion of Relationship between FoC and PFI

A consistent finding was that FoC self and FoC from other had stronger correlations, often within the large effect size range, with subjective well-being as measured by the PFI, compared to smaller correlations with the positive affect measure. To understand this one needs to revisit the measurement tools used for PFI and positive affect. The PFI is a tool assessing an individual on a continuum from high distress to high well-being based on frequency of different experiences over the past week. It also has items enquiring about the concept of life satisfaction. On top of this the measure includes items measuring ones sense of life meaning, enjoyment, and satisfaction. The measurement of Positive affect focuses solely on the frequency of the experience of different positive mood states over the past week. The PERMA model (Seligman et al., 2006) provides a possible explanation for the difference in correlation strengths in that the PFI may be tapping into more than one area of the model, for example positive emotions, sense of meaning, and sense of achievement/enjoyment, whereas the positive affect measure focuses on just positive emotions. As

such, it is suggested that the PFI may be more sensitive to the barriers that FoC may pose on subjective well-being such as those proposed in the PERMA model, than a measure of positive affect alone.

#### 5.4 Summary of Discussion about AEE, FoC and Subjective Well-being

In summary, more negative AEE was associated with more negative affect, less positive affect and lower subjective well-being. Within a social view of the role of emotions, the results are understood by drawing from the literature on emotional suppression and a tendency to restrict social interaction/support. It would seem that negative AEE, which were designed on the premise that a tendency to suppress emotion leads to distress due to a reduced ability to seek social support (Barnett & Gotlib, 1988; Joseph et al., 1994), may also be a vulnerability factor in subjective well-being. AEE social rejection was often the most strongly associated with subjective well-being. This was understood in the social context of emotion and the evolutionary importance of group membership. A vicious cycle was proposed whereby due to the need for social relationships, emotional suppression is used to alleviate concerns of social rejection, but in doing so, lower levels of subjective well-being are felt perhaps due to lack of authentic social support/relatedness as suggested in the PERMA model (Seligman et al., 2006; 2011). Data from an fMRI study was used to show how the pain of social rejection activates similar areas of the brain activated in physical pain whilst the CBT technique of identifying the most feared or distress provoking thought or belief which may lead ultimately to fear of rejection. Gender differences in negative AEE revealed that men endorsed more weakness and bottling beliefs, whilst women's attitudes and not men's regarding control of emotion were associated with subjective well-being. Gender differences were understood in terms of the social construction of the emotionality in gender. There is a narrative still that it is not masculine and is a sign of weakness to express emotions (Cutrona, 1996; Wong et al., 2006) whereas for women

lack of emotional control may represent the internalised wider cultural narrative that women are more 'emotional' than men, that emotion is irrational and dangerous.

More FoC in the flows of 'to self' and 'from others' was strongly associated with lower levels of subjective well-being. FoC to others was not found to be significantly associated with subjective well-being. FoC to others did not yield any statistically significant relationships with subjective well-being measures. This was supportive of Gilbert's (2009) perception that FoC self and from others likely measure a more general affective difficulty in experiencing affiliative emotions, as opposed to FoC to others which may operate through a different more cognitive process such as ideal prosocial motivations or moral values.

A consistent finding was that FoC self and FoC from other were more associated with subjective well-being as measured by the PFI, compared to smaller correlations with the positive affect measure. The measurement of PFI assesses subjective well-being on a single high distress to high well-being continuum which assesses subjective well-being as defined by low negative affect, high positive affect and high life satisfaction. The PERMA model (Seligman et al., 2006, 2011) was drawn on to provide a possible explanation for the difference in correlation strengths, suggesting that the PFI may tap into more than one area of the model, for example positive emotions, sense of meaning, and sense of achievement/enjoyment, whereas the positive affect measure focuses on just positive emotions. As such, it is suggested that the PFI may be more sensitive to the barriers that FoC may pose on subjective well-being such as those proposed in the PERMA model, than a measure of positive affect or negative affect alone. Finally, high intercorrelations between FoC self and FoC from others were understood in terms of their shared underlying processes originating in viscerally learnt childhood attachment patterns in the facilitation or blocking of the experiencing of affiliative emotions generated within or by others.

## 5.5 The Unique Variance explained by AEE and FoC in Well-being

As already discussed AEE subscales and FoC scales were generally associated with well-being. However, FoC and AEE scales were also found to be correlated with each other, in some cases to a large degree. Partial correlations and regressions were therefore undertaken in order to better understand whether FoC and AEE explain unique or shared variance in subjective well-being. The following questions were considered 1) are FoC and AEE unique or overlapping in the variance explained in subjective well-being? 2) How much variance in subjective well-being do FoC and AEE separately account for? 3) How much do demographic variables explain the relationships between AEE, FoC, and well-being? A brief overview of the results will be given and discussed in relation to the dualist theories introduced early in the thesis. Following this, the influence of demographic variables, namely age and being in a relationship will be discussed using relevant theory.

### 5.5.1 Overview of Results

The study set out to explore whether the transdiagnostic concepts of AEE and FoC were able to explain unique variance in well-being. Partial correlations revealed that for FoC self all of the relationships with well-being measures were unique and not shared with AEE subscales. An example of this relationship is presented in figure 4 for FoC self, AEE subscales and positive affect (unique variance represented by non-overlapping circles and shared variance represented by overlapping circles). Partial correlations also revealed that for FoC from others, all relationships with negative affect and the PFI were found to be unique from AEE subscales. The exception, as shown in figure 4, was in the relationship between FoC from others and positive affect, as FoC from others and AEE

social rejection seemed to be intervening in their relationship with Positive Affect. FoC for others was not analysed due to non significant bivariate correlations.

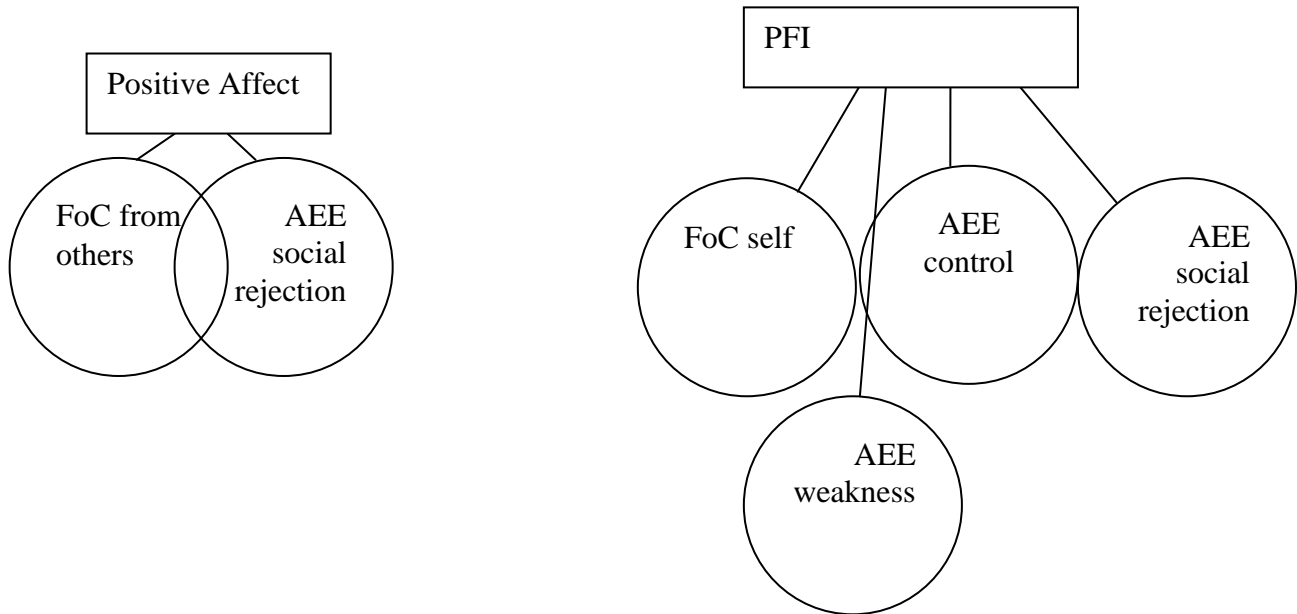


Figure 4 Example schematics of shared and unique variance explained by FoC and AEE by well-being measure

These findings suggest that whilst FoC and AEE are seen as potential process that may block emotional processing and be causes of poorer subjective well-being in two popular therapies CFT and CBT, they do so in unique ways for negative affect and PFI, with the exception of FoC from others and AEE social rejection which seem to overlap in the variance of positive affect explained. The findings that FoC and AEE explain unique variance in negative affect and PFI will be discussed in relation to theoretical origins of the AEE and FoC, dualist theories of emotion and cognitive processing. The finding that FoC from other and AEE social rejection overlap in the variance explained in positive affect will be discussed in relation to the measures of well-being used.



### 5.5.2 Theoretical Underpinnings of AEE and FoC

The AEE outcome measure was created for use within cognitive behavioural therapy as a means of assessing for specific unhelpful attitudes about emotional expression (Joseph et al., 1994). Joseph et al. (1994) suggested that three of the AEE subscales represent cognitive components whilst bottling up represented a behavioural tendency of emotional suppression. AEE subscales focus on the negative attitudes about a need to control emotion, negative attitudes concerning emotional expression being a sign of weakness, and negative attitudes surrounding the feared consequence of social rejection due to emotional expression. AEE subscales were designed to reflect a type of dysfunctional assumption which is one type of negative cognition in CBT that can be developed due to past experiences but triggered by incidents in the here and now.

Different to the AEE scale, Gilbert et al. (2012) created the FoC scales having noticed that whilst some patients were able to challenge negative cognitions such as those measured by the AEE, they were unable to experience a change in emotion from negative to more positive affect. Gilbert et al. (2012) concluded that it was the experience of compassion that would lead to avoidance or fear responses. Again likely due to adverse experiences in childhood care-giver relationships, but the focus was less on the cognitive learning of emotional expression per se as in negative AEE, but instead was of a lack of interpersonal closeness and felt sense of safety, otherwise conceptualised as the soothing system of the tripartite affect regulation model. Gilbert proposed that due to the evolutionary emotional regulation systems sensitivity to threat and competition easily leads to affiliative emotions being experienced as threatening (Gilbert, 2010). Therefore, whereas AEE assumes negative attitudes are the product of a cognitive behavioural learning cycle, FoC considers an individual's emotional sense of safety driven by emotion drive/motivation systems which are a product of an innate sensitivity to threatening interactions due to being an evolved human.

### 5.5.3 Using CEST (Epstein, 2003) to Discuss the Unique Variance of FoC and AEE

As results from the current study suggest that FoC and AEE may be unique in their associations with subjective well-being, a broader theoretical perspective will be offered using Epstein's CEST (2003) in an attempt to tentatively provide a plausible explanation for these findings. It will be argued that the findings of unique variance in subjective well-being explained by FoC and AEE map onto Epstein's (2003) CEST experiential and rationale systems respectively and to different stages of the cognitive evaluation model of expression and nonexpression. Due to the limits of the current study's data due to the correlational cross-sectional design, the following discussion is largely hypothetical and sets out how future research could lead to firmer conclusions to be drawn.

A brief description of Epstein's CEST model (2003) will be given before discussing what system FoC and AEE might map onto. Epstein (2003) proposes that people have a conscious rational system and a preconscious experiential system of processing information from internal and external worlds. The experiential system is an evolved emotionally driven system developed through experiential emotional learning. The rational system is built on internalised culturally specific rules of reasoning. The rational system can engage in abstract reasoning and is unique to humans in its capacity of reflection. Whilst both the experiential and rationale systems are cognitive, the experiential system is strongly related to affect and is considered an emotional-cognitive system. It is proposed that the unique variance explained in subjective well-being by FoC and AEE may be due to AEE mapping onto the cognitive rational system and FoC on to the emotional-cognitive experiential system.

Epstein (2003) describes the experiential system, which the FoC is proposed to map onto, as a deeply emotional system and leads to felt "vibes", which refer to vague feelings that may be made

up of a mix of more easily accessible feelings that can be reflected on in consciousness. Epstein proposes that when an individual is faced with an event of high emotional salience, the experiential processing system searches for past related events which had a similar emotional vibe. Epstein goes on to suggest that the recalled feelings then have upstream effects in the processing of further aspects of the emotional salient event. It follows therefore that if the recalled vibes are positive, the individual may think and behave in ways anticipated to lead to more positive experiences. However, if the recalled vibes are negative, than thoughts and actions are likely to attempt to achieve avoidance of the predicted negative feelings in the current situation. In terms of the rational system, which AEE is proposed to map onto, is the slower processor as it involves the conscious reflection on emotion and subsequent control of actions so as to not be acting on impulse all of the time. The rational system is also able to counter the experiential system, a process often utilised in psychological therapy such as CBT, wherein clients are encouraged to examine their initial thoughts and action which may be the product of the experiential system. These ideas will now be discussed in relation to the cognitive evaluation model of emotional expression and non-expression that was introduced earlier in the thesis.

#### 5.5.3.1 CEST and the Cognitive Evaluation Model of Emotional Expression

The cognitive evaluation model of emotional expression and non expression (Kennedy-Moore & Watson, 1999) outlines five steps regarding the process of emotional experience that can lead either to expression or non-expression. The first steps consist of preconscious processing of emotional information based on automatic physiological arousal and one's preconscious sense or perception of their affective state or as Epstein terms it the emotional vibe. Disruption that would lead to non-expression at these steps occurs when a person is unconsciously motivated to block the experience of emotions from one's consciousness (Garssen, 2007; Lumley, 2002). Epstein (2003)

reports that the experiential system operates in the preconscious awareness, thus within the realm of emotional processing, may be active in the first two preconscious steps of Kennedy-Moore and Watson's (1999) cognitive evaluation model of emotional expression and non-expression. It is hypothesised that a felt FoC may lead to a fight/flight automatic physiological response when compassion is experienced and thus lead to an interruption to the experience of emotion in a congruent manner.

The latter stages of the cognitive evaluation model of emotional expression and non-expression involve the conscious evaluation of and reasoning about affective response in terms of the internalised beliefs and goals regarding emotion and application to these within an immediate social context. Lumley (2002) asserted that disruptions at steps four and five can be referred to as the volitional and conscious inhibition of emotion, often termed suppression. The rational system which is based on logical reasoning learnt from cause and effect contingencies seems to map onto the latter steps of the cognitive evaluation model of emotional expression and non-expression. It is hypothesised that AEE may map onto the latter conscious reflection of emotion and decision to behaviourally suppress emotion or not.

The hypothesised way in which AEE and FoC may map onto CEST and the cognitive evaluation model is supported by Gilbert's (2010) observation that clients in psychotherapy can intellectually change their thoughts whilst emotionally feel no different. The clinical case study by Harris and Hiskey (2015) wherein a client was supported using CBT and CFT to both think and feel differently provides an example of how a dualist understanding of transdiagnostic concepts may prove beneficially in better understanding mental health.

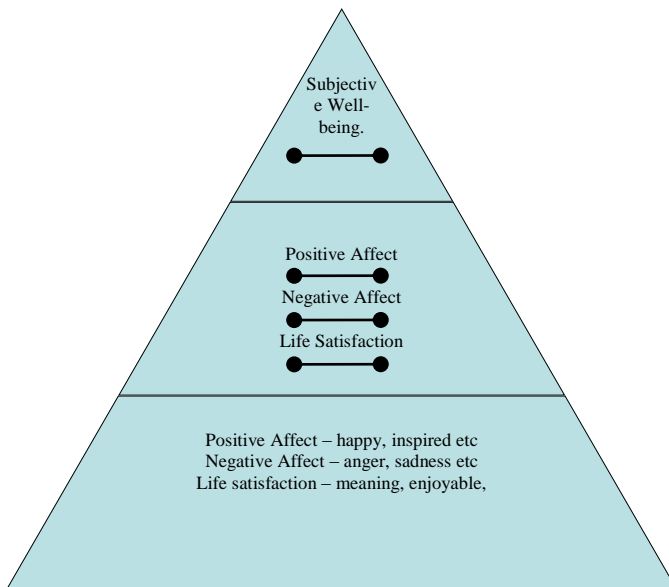
#### 5.5.4 Regression Models of Well-Being

In terms of how much variance in subjective well-being accounted for by FoC, AEE and correlated demographic variables, the model for positive affect explained 15% variance with AEE social rejection and FoC self being the strongest predictors. The negative affect model explained 38% variance with AEE social rejection, AEE control and FoC self being the biggest contributors. The PFI model explained 42% variance with relationship status, AEE social rejection and AEE control contributing the most variance.

##### 5.5.4.1 Differences in Variance explained by Measure of Well-being

To help explain the finding that FoC from others and AEE social rejection explained unique variance in PFI but seemed to share variance in positive affect, the measures used, the PANAS positive and PFI will be discussed. Whilst the PANAS positive affect scale places participants scores on a single continuum ranging from low positive affect to high positive affect, the PFI places a person's scores on a continuum of depression/anxiety to happiness/relaxation. Figure 5 presents a visual representation of the theoretical debate regarding what can be termed hierarchically organised conceptions of well-being (Joseph & Wood, 2010). Diener, Suh, Lucas and Smith (1999) report that there is agreement within the subjective well-being literature that well-being can be conceptualised on a single continuum from low to high based on the summation of negative affect, positive affect, and life satisfaction. The development of hierarchically organised conceptions of well-being has been central to the presentation of an alternative framework of understanding mental health to that of the medical model (Maddux, Snyder & Lopez, 2004). Shown in Figure 5 is the notion posited by Joseph and Maltby (2014) and Joseph and Wood (2010) that describes how subjective well-being can be thought of as a selection of lower level continuums as represented in the middle portion of the

triangle in Figure 5, such as high positive affect, low negative affect, and high life satisfaction which when considered as a whole are deemed to reflect aspects of well-being. Alternatively, subjective well-being can be viewed at the higher order level and quantified on a single continuum from low to high subjective well-being. It can be argued that PANAS positive positions itself in the low order dimensional approach to well-being as it provides a score representing frequency of positive affect, whereas the PFI sits in the higher order continuum as it provides one score from items which measure negative mood states, positive mood states, and life satisfaction.



*Figure 5* Schematic of levels of continuum of subjective well-being (Joseph & Maltby, 2014; Joseph & Wood, 2010)

The authors of the PFI suggest that subjective well-being can be measured on a single continuum (Joseph & Maltby, 2014) based on the assumption that depression and anxiety are not discrete entities separate from normal states of being as suggested in the DSM-5 (APA, 2013), but instead are forms of distress differing in severity which fall on a single continuum alongside life

satisfaction (Joseph & Wood, 2010). The results from the current study suggest that in situations where clinicians and clients wished to focus on FoC and/or AEE as a treatment target, the PFI would allow for the unique contributions to subjective well-being of FoC and AEE to be measured, whereas the measure of positive affect alone would miss the role FoC and AEE on life satisfaction for example.

#### 5.5.4.2 The impact of Age and Relationship Status on FoC, AEE and Well-being

For the positive affect and PFI regression models, age was a non significant predictor in the final models; however, increasing age remained significant in the negative affect model. Relationship status, i.e., being in a relationship was a strong predictor in PFI. The role of age and relationship status will now be discussed.

##### 5.5.4.2.1 Age and Well-being

Analysis showed that age was a significant predictor in all subjective well-being models. However, whilst age was a significant predictor for negative affect with and without the addition of FoC and AEE, the contribution of age to positive affect and subjective well-being did not remain with the addition of FoC and AEE. In other words it would seem that AEE and FoC account for the variance explained by age for subjective well-being and positive affect. However, age was found to explain variance in negative affect.

The correlations between age and subjective well-being are consistent with previous cross sectional research has reported older adults to report less negative affect than their younger counterparts (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Charles & Carstensen, 2010;

Mroczek & Kolarz, 1998; Riediger, Schmiedek, Wagner, & Lindenberger, 2009) and with longitudinal research which found self-reported increases in sense of well-being with aging (Carstensen et al., 2011; Cacioppo, Hawley, Kalil, Hughes, Waite, & Thisted, 2008; Rocke, Li, & Smith, 2009). The pattern of greater subjective well-being in aging has often been understood in terms of psychosocial age related changes to how one relates to emotions, described in Gross's (1998; 1999) cognitive emotion process model and Carstensen et al.'s (1999, 2006) Socioemotional selectivity theory (SST).

Gross (1998) proposed that older age brings with it an increased use of antecedent-focused regulatory strategies to influence the experience of adaptive emotional experience. In other words Gross (1998) suggests that in older age in an attempt to experience more positive emotion and less negative, proactive emotion regulation strategies are preferred as opposed to a response focused emotion regulation as the former intervenes or regulates emotion prior to the physiological, behavioural and psychological response to an emotion cue, thus negative emotion can be avoided and positive emotion can be sought out. Carstensen et al.'s SST (1999, 2006) explains this shift in emotion regulation strategy through ones changing motivations and goals. SST posits that at conscious and subconscious levels, individuals monitor time, specifically how much time they have left. Considering time influences the relative importance of two types of goals that dominate human thought and behaviour; knowledge and emotional. Knowledge goals centre on self-development and are prioritised when time is perceived as expansive thus one can work towards longer term self-development goals. Contrary to this, the emotional goal type includes a focus on one's immediate emotional life, thus behaviours are directed into activities and relationships for their emotional significance in the here and now. SST theory posits that people become increasingly selective in their goals as they age, so that experiences are more emotionally meaningful and satisfying. In essence, according to SST, older adults' awareness that lifetime is shrinking motivates them to adopt



emotion-focused goals, emphasizing emotional satisfaction and meaning, which leads to a greater sense of well-being in that they experience less negative affect, more positive affect and report greater life satisfaction.

The current study found that age only explained one percent of variance in positive affect, 10% of variance in negative affect, yet the addition of FoC and AEE into the regression models enabled 14% more variance in positive affect and 28% of variance in negative affect to be explained with the individual contribution of age reducing in both models, thus showing AEE and FoC to be better predictors of well-being than age. Similar conclusions can be made from PFI regression model wherein age and relationship status explained 10% of variance, whilst the addition of FoC and AEE alongside relationship status and age explained 42% of variance in PFI. Evidence from the current study suggests that increasing age is associated with lower levels of FoC self, which in turn is associated with and a strong predictor of subjective well-being. Future research could explore the effect that FoC self has on the transition from knowledge focused goals to emotion-focused goals and subsequent increase in antecedent emotion regulation strategies. For example, it could be that the aforementioned changes psychosocial relating to emotions is more true for those with low FoC self than those with high FoC. Future research could further therapeutic work interested in how to support successful aging.

#### 5.5.4.2.2 Relationship Status and Well-being

Relationship status was found to be associated with PFI but not negative or positive affect when taken in isolation. The PFI regression model wherein age and relationship status explained 10% of variance was increased to 42% with the addition of FoC and AEE alongside relationship

status and age. However, as relationship remained the strongest predictor in the model it warrants further discussion.

Bringing together psychological well-being models and cultural norms of romantic relationships may help explain the finding that being in a relationship was found to be the strongest predictor of PFI over and above AEE and FoC scales. As the sample was overwhelming white British this finding is considered within the cultural norms about relationships in the UK and other western societies. Numerous models of well-being include relationship with others, Maslow's Hierarchy of Needs includes the need of belonging and love, Seligman et al.'s (2006, 2011) PERMA model terms it positive relationships, Ryff's (1995) psychological well-being model also includes positive relations with others as a key factor for well-being. Goodwin, Cook, and Yung (1999) remarked that being in a relationship is often associated with greater life satisfaction, particularly in western cultures which are more individualistic such as the UK and America. Stone (1989) argued that western cultures suffer from an idealisation of loving intimate relationships so much so that it is widely perceived as a necessity for well-being. Drawing from the literature on psychological well-being, it could be argued that being in a relationship in general gives a sense of satisfaction, meaningfulness and purpose due to the dominate cultural norm that proposed that being in relationship is the most pleasurable and satisfactory way to live.

#### 5.5.2.3 Summary of Discussion of the Unique Variance accounted for by AEE, FoC, and Demographics

This is the first study to provide data which suggests that FoC and AEE may explain unique variance in subjective well-being, suggesting that the respective associations with subjective well-being may operate through different processes. Gilbert's (2009) observation that there are clients in

psychotherapy who understand their distorted beliefs about emotions *intellectually*, but do not feel differently *emotionally* about them were tentatively mapped onto Epstein's CEST (2003), with FoC predicted to relate to the emotional-cognitive experiential system whereas AEE predicted to relate more to the cognitive rational system. AEE and FoC were also hypothesised to align with different steps of the cognitive evaluation model of emotional expression and non-expression, in that FoC was predicted to link more with the early preconscious stages of emotion processing where blocks are based on autonomic physiological responses and vague emotional vibes. AEE was speculated to relate to the latter steps of conscious processing of emotion.

The differences in the variance able to be explained in well-being measures, particularly the PFI and positive affect, by AEE and FoC was understood in the context of the continuums employed by each measure. Using Joseph and Maltby's (2014) critique of the continuums used by different measures, the PFI was felt to measure all of the aspects of subjective well-being on a single continuum, whereas the PANAS positive affect measured one aspect of subjective well-being on a continuum that would have to be interpreted alongside others to get an overall measure of subjective well-being. The results from the current study suggest that in situations where clinicians and clients wished to focus on FoC and/or AEE as a treatment target, the PFI may allow for the unique contributions to subjective well-being of FoC and AEE to be monitored, whereas the measure of positive affect alone may miss the role FoC and AEE on life satisfaction for example.

The associations between age and relationship status (i.e., being in a relationship) on subjective well-being were understood using psychosocial theories of emotion processing and positive psychology theories of happiness and well-being. Whilst further research may explore in more depth whether AEE and FoC actually reflect different parts of Epstein's (2003) CEST model and Kennedy-Moore and Watson's (1999) cognitive evaluation model of emotional expression, it is

tentatively proposed that psychotherapy targeting dysfunctional emotional expression may benefit from focussing on the emotionally based beliefs perhaps measured in FoC as well as the cognitive held beliefs measured in AEE, as reported by Harris and Hiskey (2015) in a clinical case study.

## 5.6 Critique of methodology and design

### 5.6.1 Strengths of the Study

A strength of the study was the deliberate attempts made to recruit working age adults and older age adults as opposed to accepting older age participants as a hard to reach group. This is important in the context of a population who live longer and the provision of mental health services for the older adult age group on parity with services for adults of working age which are often based on the extrapolation of findings from younger adult samples (Witham & McMurdo, 2007). This study provides psychometric data for the AEE and FoC that reveals the measures to be internally reliable for an adult population with an age range of 18-89 years. This is particularly useful for the FoC as the literature base is heavily skewed towards the recruitment of student samples. To ensure recruitment of older adults methodological decisions based on research exploring barriers and motivators to research participation were considered (Hiskey & Edwards, 2013). Accessibility was considered in that the researcher travelled to locations where older adults were present, such as, university of the third age and Age UK meetings to minimise the need for travel by older adults (Mody et al., 2008). Recruitment posters and information sheets included reasons as to why participation is useful to other people and clinicians in an attempt to account for the key motivating factor of altruism (Mody et al., 2008). When giving recruitment speeches an emphasis was placed on the ongoing support from the researchers available to all participants in the form of contact details to meet the need of support and a sense of trust as reported by Cassidy et al. (2001). Finally, in response

to Jancey et al.'s (2006) findings that seeing the study as an opportunity to learn and having written results of the study were motivators in participation, both were facilitated.

Another strength of the study was its application of the literature on subjective well-being and awareness that focusing solely on subjective or psychological well-being can be restrictive. As such measures were selected and described using traditional definitions and categorisations of well-being alongside recent developments which include the term subjective well-being. The use of a new measure, the PFI, with a larger more diverse sample than the standardisation student sample is useful in highlighting the potential role of the PFI to clinicians committed to working with a conceptualisation of well-being which encompasses distress and PFI. This will be discussed further in the following section on implications.

## 5.6.2 Limitations of the Study

### 5.6.2.1 Defining Compassion

Unsolicited feedback via email from two separate participants suggested that the study had assumed that people would know what the term *compassion* meant. This ambiguity of its definition may reflect the relative newness of the term as understood within well-being and mental health services. It is an important point to consider as one can only answer questions about their fears of compassion when one has a working understanding of the term compassion. Without an agreed definition, there is likely to be a method bias caused by item ambiguity which refers to when ambiguous items allow respondents to respond to items systematically using their own heuristic or respond randomly (Peterson, 2000).

The Dalai Lama (1995) defines compassion as ‘an openness to the suffering of others with a commitment to relieve it’. The Oxford dictionary definition (2005) also centres on sympathetic pity and concern for the sufferings of others. Other attributes of compassion which have been mooted by Gilbert (2005, 2009, 2010) include motivation to care, an ability to tolerate unpleasant emotions, understanding others empathically, non-judging or condemning attitudes, and a capacity for sympathy. Research has also suggested that rather than compassion only applying to something you can be to others, as is suggested in the Oxford dictionary and definition from the Dalai Lama, compassion feelings *flow* in the directions of to self, to others and receiving from others (Gilbert, 2009, 2010; Neff, 2003). Neff (2003) and Gilbert (2009) differ in how they conceptualise compassion. Gilbert considers compassion within an evolutionary perspective that focuses on the evolved abilities to form attachment bonds within close others to enable cooperative behaviours to ensure survival of the group (Gilbert, 2010). Neff (2003) differs from Gilbert (2010) in that the conceptualisation of compassion is directed to the self as opposed to outwards to others as Gilbert (2010) proposed. The conceptual differences that have been outlined are important as it has been found that compassion directed outwardly to others and self-compassion may not be part of the same overarching concept of compassion, as shown in multiple correlational studies with undergraduates reporting no association between self-compassion and compassion for others (Neff & Pommier, 2013).

As can be seen, the definition of compassion as it has been in the research context is not perhaps easily accessible to research participants. Another aspect related to the ambiguous definition is that central to FoC from others is the understanding of affiliative emotions. Affiliative emotions are thought to be positive emotions which are experienced as soothing, calming and warmth. In essence it is these feelings which underpin the three circles model and enable the soothing system to operate (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008; Depue & Morrone-Strupinsky,

2005). The definition of FoC for others perhaps aligns most closely with traditional definitions of compassion in that it refers to noticing the suffering of others and being committed to helping that person. Providing or not providing help to others has been explored in relation to FoC for others (Graziano, Habashi, Sheese, & Tobin, 2007), thus perhaps the addition of helping could be added to the definition to help participants understand the concept. FoC self uses the traditional definitions of compassion but involves one directing it towards oneself rather than others. Findings which add depth to the definition are that those with mental health problems may feel that self compassion is not deserved or would represent a weakness (Gilbert & Procter, 2006). Perhaps a definition of compassion in research exploring FoC could benefit from providing a more detailed definition of the concept so as to help participants formulate their attitudes towards the three directions of flows. Strauss et al., (2016) consolidated existing definitions of compassion and proposed that compassion could be defined by five elements; recognising suffering, understanding the universality of human suffering, feeling for the person suffering, tolerating uncomfortable feelings, and motivation to alleviate suffering. Whilst no measure has been published that specifically measures all five components it is recommended that researchers specify the components of focus to improve the generalisability of findings emerging from the compassion literature.

#### 5.6.2.2 Sample Bias

The majority of the sample was female (77.7%) and as multiple regressions were run on the entire sample to ensure adequate power of analysis, it may be that gender differences were missed. It may also represent a potential difference in acceptability of the study to men and woman. The experimenter noted that when recruiting older adults, the take-up rate of men seemed lower than compared to women. There were examples of heterosexual couples approaching the recruitment stand and the woman taking a questionnaire pack but the man refusing, with one man stating whilst

pointing to himself that “this [I] is an emotion free zone.” Although there is no objective data available to compare take-up rates of males and females, subjective observations of this trend should be considered when interpreting the findings of this study. It may be that the male subset of the sample reflected men who considered emotions more acceptable, as such the sample may not reflect the wider male population. It is recommended that a qualitative study exploring the acceptability of participating in research concerning the trans-diagnostic concepts of AEE and FoC be undertaken. This is advised as opposed to quantitative research exploring the acceptability of research on emotion and well-being more generally as the stance taken in this thesis is one of advocating for a better understanding of mental health with regard to the possible and specific mechanisms that may be targets within psychological therapy.

The lack of diversity in ethnicity also limits the generalizability of the study. The sample was overwhelmingly white British and as such conclusions drawn should be applied to this client group. Different cultures have different norms for emotional expression and the attitudes which people internalise (Eid & Diener, 2001). Tsai, Knutson, and Fung (2006) affect valuation theory which proposes that people hold different perspectives on what emotions they would ideally like to experience. As such, study replication with more diverse samples in terms of ethnicity, as well as equal gender distributions are called for.

#### 5.6.2.3 Planned Analysis and Bonferroni Adjustments

A possible limitation of the study was the relatively large number of statistical tests conducted on the same data points. Bonferroni adjustments were considered as per recommendations by Bland and Altman (1995). However, many opponents of Bonferroni adjustments have questioned its utility and highlight that it is overly mechanical and solves the wrong problem. Perneger (1998)



provides a critique of Bonferroni adjustments, suggesting that its use can create problems for the researcher. Perneger (1998) that while applying Bonferroni adjustments may reduce the risk of type I errors, it simultaneously increases the chance of type II errors. Thus, results not brought about by chance are overlooked and thus the statistical analysis has in fact been overly cautious and conservative. Other arguments against the Bonferroni method are that it solves the wrong problem (Rothman, 1990; Perneger, 1998). It is suggested that the Bonferroni method overlooks the researcher who is in fact interested in the individual analysis run rather than the study wide analysis per se. For example, a researcher using ten different questionnaires may wish to know whether any (even one) of the ten are related to their dependent variable, as opposed to hypothesising in a general manner that all or none will be related. In such cases a focus on the study wide type I rate is over simplistic and ignores the dilemmas faced when analysis reveals unexpected results which could be novel and true or simply down to measurement error. Instead Bayesian methods, wherein it is the integration of evidence based beliefs with new data analysis, are therefore a better approach than Bonferroni adjustment for the researcher interested in each of their variables individually as well as study wide. The approach advised by Pengerger (1998) when testing hypothesis is to be sensitive to both the use of statistical analysis as well as the existing evidence base by describing what statistical analysis is conducted, what the results suggest alongside what the researcher believes to be true or chance findings. Whilst it is advised that Bonferroni corrections are considered in future research, Bayesian methods of analysis and interpretation is recommended in future research.

#### 5.6.2.4 Method Bias

Another weakness of the study was that it relied on self-report measures alone and may therefore suffer from systematic method bias (Bagozzi, Yi, & Phillips., 1991). This is also the case for previous studies exploring AEE and FoC so future studies would be encouraged to make use of

additional methodologies such as questionnaires from multiple respondents, or qualitative interview studies. Cote and Buckley (1987) reported on estimates of error due to method bias within different constructs such as attitudes, personality and aptitude. They concluded that for attitude variables perfectly correlating the degree of measurement error can account for half of the correlation, whilst for attitude variables with no correlation between them, measurement error can suggest a small correlation exists. Therefore, measurement error in this study could have led to both type I and type II errors. This is concerning as all measurement questionnaires were completed by the same person in this study. This is problematic as previous research speculates that participants attempt to remain consistent in their response set to appear rational to the researcher (McGuire, 1966). This has been called the consistency motif (Johns, 1994) or the consistency effect (Salancik & Pfeffer, 1977). Future studies should attempt to reduce the consistency effect by using methods such as the completion of self-report measures being staggered at different times to avoid them being completed all at once. Whilst informant completed versions of the AEE, FoC and PFI would also help in this limitation, it is not recommended as the theoretical perspectives of all of the concepts are that the individual is the most knowledgeable about their own cognitive and emotional experience.

### 5.7 Study Implications to Practice, Theory

As FoC and AEE have been shown to be associated to subjective well-being, it is suggested that the therapies that FoC and AEE originate from, CFT and CBT respectively, in which FoC and AEE may be an effective target for treatment, may also be useful targets for intervention when the aim is to increase subjective well-being. Positive psychology therapies have tended to focus on increasing happiness and well-being under the theoretical assumption that positive functioning is fundamentally different from negative functioning. Therefore there is a divide in therapies seen to reduce distress and those aimed at increasing well-being. Whilst many issues would present in doing

so, it would be beneficial for the general public and commissioning bodies to have access to research which compares positive psychotherapy and distress based psychotherapy and those which explicitly and deliberately focus on both distress and subjective well-being. If done so it could help clinical psychologists who see the value in integrating therapeutic models in formulations and intervention plans. For example, when working on barriers to emotion processing it may be that adding aspects of CFT that target FoC and aspects of CBT that target AEE may have added benefits than either used in isolation. In a clinical context in which well-being services, who are tasked with increasing well-being, are being set up independent of more traditional community mental health services who perhaps have more of a focus on alleviating distress, the current study suggests that it may be more reflective of the empirical evidence not to separate out distress and well-being, but instead to consider how transdiagnostic concepts relate to subjective well-being.

Regarding the dilemma for clinical psychologists to assimilate positive psychology principles of subjective well-being into practice, the current study suggests that the PFI could be useful to clinicians in three ways, firstly, it could be used by clinicians that subscribe to humanistic principles who aim to increase well-being in therapy not just alleviate distress. Secondly, the PFI can be helpful when evidencing the outcomes of a therapeutic model in terms of increasing well-being and thirdly, it can help identify determinants of well-being and the factors which promote positive outcomes in therapy. The associations found between AEE and the PFI are supportive of the use of the PFI in clinical psychology as the statistically significant relationships found in this community sample provide promising evidence that the PFI may have a place within therapies using a cognitive approach, particularly when AEE is an identified target in therapy. The findings have built upon positive results using predominately student samples, suggesting that there remains validity of the PFI within a greater age range encompassing adults and older adults.

The relationships of AEE and FoC to subjective well-being had not been explored before. As such this study provides the start point of a literature which considers the value of identifying and focusing on blocks of emotion processing not only in therapy aimed to alleviate distress but also in general approaches to facilitate subjective well-being. As such implications to the theoretical approaches of CBT and CFT are that there may be other transdiagnostic concepts already supported in their links with distress which may also relate to subjective well-being. The current study also provides more support to the idea that all of the concepts measured in this study are based on theories not specific to abnormal psychology. For example, compassion focused therapy considers how evolutionary psychology affects all humans, whilst AEE is built on the notion that all humans perceive the world through a lens of core beliefs and assumptions. The subjective well-being measures used infer that all humans experience positive and negative mood states and have the ability to provide subjective ratings as to their satisfaction with life and experience.

#### 5.7.1 Future Research

Future research on compassion should aim to provide better definitions of what is meant by the term *compassion*. In order to increase the appeal of research on compassion it may be that a definition taken from Gilbert's (2005, 2009, 2010) work on CFT which includes motivation to be caring, ability to tolerate unpleasant emotions, feel empathy and sympathy, and be non-judgemental. The definition would need to be applied to all three flows of compassion. As FoC is deemed to be a measure of resistance to a felt experience or emotional state, definition of what affiliative emotions are would also be useful to future participants. The definition could also be supported by making explicit the social mentalities and three circles model to highlight that compassion is not necessarily an emotion as happiness or sadness is, but instead is a way of relating to one's entire cognitive and

emotional life in a way that is caring and understanding, as opposed to self-critical and/or threatening.

Future research to replicate this study with a more ethnically diverse sample would be of benefit, particularly as relationship status was found to be a key predictor to PFI. Research should explore whether results are different from the current study with samples reflecting a broader range of cultural norms of emotional expression, acceptability of compassion, and components deemed important to well-being.

Research using the FoC has suffered from systematic method bias (Bagozzi, Yi, & Phillips., 1991). Therefore, other methodologies such as clinical case studies, qualitative interview studies and quantitative questionnaire studies that collect data from a range of sources such as the participant and an informant might be helpful.

Replication of the study with samples who represent the more severe ends of the scoring range of the measures would be encouraged, as some scores were slightly bound on the FoC and AEE. This is particularly needed for the FoC measures which failed to have the top third of the scoring range represented. Whilst current longitudinal studies using the AEE suggest that it remains a relatively stable concept over time, even when mood fluctuates somewhat, it is less clear how stable FoC are over time, or how both FoC and AEE respond to treatment, in other words are the measures sensitive to change from interventions.

Finally, future research could explore in a more systematic manner how AEE and FoC may relate to different aspects of the cognitive evaluation model of emotional expression. Wong et al., (2006) outlines how each step of the cognitive evaluation can be measured; step one using

physiological instruments, step two using measures of repression such as the Weinberger Adjustment Inventory (Weinberger, 1990) and Index of Self-Regulation of Emotion (Mendolia, 2002), step three using measures of Alexithymia such as the TAS-20, and steps four and five using the AEE (Joseph et al., 1994).

## 5.8 Overall Conclusions

This is the first study to provide evidence that the transdiagnostic concepts of FoC and AEE are associated to subjective well-being as well as distress as previously reported in the literature. AEE and FoC are most associated with subjective well-being when measured by the higher order factor which places life satisfaction, low negative affect and high positive affect on one single continuum such as the PFI. Clinicians are encouraged to use the PFI as an outcome measure when working with FoC and AEE as it may capture all of the areas of subjective well-being. The PFI may also be sensitive to increased life satisfaction due to demographic factors such as increasing age and being in a relationship as presented in psychosocial theories of age and emotional regulation, and the PERMA model (Seligman et al., 2006; 2011).

This is also the first study to provide evidence that AEE and FoC explain unique aspects of subjective well-being, that is, that the underlying mechanisms that connect AEE and FoC with subjective well-being are likely to be different. It is suggested that this reflects the differences in AEE and FoC of representing the cognitive rational system and emotional-cognitive experiential system, respectively, of Epstein's (2003) CEST model. It is also proposed that AEE and FoC may represent different aspects of the blocking of emotion processing and expression as set out in the cognitive evaluation theory of emotional expression and non-expression. Further research would be needed to confirm the prediction that greater FoC may cause disruptions at the preconscious early

stages of emotion processing whilst AEE cause disruptions at the latter conscious stages of processing.

It is suggested that clinicians can make use of the finding that AEE and FoC represent unique associations to subjective well-being by integrating them both into practice when clients are troubled by blocks to emotional processing and using the PFI to monitor change over treatment to subjective well-being.

## **6. Personal reflections**

The thesis undertaken was born from my clinical work with working age and older adult mental health services and observation that the process of engaging with emotions appeared more frequently problematic for those adults who were older and accessing services. It began as a project interested in potential age differences in AEE and FoC and evolved into the current project which focused also on the current dilemma of how Clinical Psychology can adapt to the increased interest in well-being. The process of conducting the research has included the dilemma of having to avoid questionnaires which may have highlighted potential risk issues such as suicidality. This has been difficult as I feel a sense of avoiding people's distress, however, I took solace from the model of mental health I utilised as conclusions are felt to be generalisable to the full range of mental health and can be considered helpful for clinicians working with people accessing mental health services.

Working on a project concerning blocks to emotional processing has provided many opportunities to confront my own shoulds, oughts, and musts about emotional expression and sense of safety and trust when receiving support from others. Reading about the power of a compassionate mindset when relating to one's personal experience has been the greatest antidote to the sometimes

competitive experience of academia. The topic of this thesis has helped me learn to get to a place where I can persevere whilst allowing myself to struggle and seek help. However, it was not until late on in the process that I was able to learn to accept help and support in a way that felt calming and soothing. I owe a great deal to the gentleness of my academic supervisors who so skilfully supported me in different ways at different times.

The research has impacted on my own clinical practice in that I try to be aware of the potential for greater subjective well-being as opposed to focusing solely on the need to reduce distress. I have also considered the importance of being sensitive to everyone's rules of emotion and how the processing of emotional content is different for everyone and often takes time to co-create the conditions that allows personal reflection in a safe way. I particularly enjoyed the findings related to aging, and feel that it has invigorated my interest in approaches that foster successful aging as opposed to the efforts so often presented in modern day society to fight the aging process. I feel fortunate to have been able to read about positive psychology at this early stage of my career and hope that I am able to hold on to its principles in clinical practice over the coming years. Finally, I wanted the project to be relevant to Clinical Psychology and feel that the bold use of a single mental health continuum will encourage others to feel more confident in their assimilation of well-being into their practice and research.



## 6. References

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## 7. Appendices

### Appendix A - Information sheet for Participants

#### **A Research Project Investigating Attitudes towards Expressing Emotions**

My name is Duncan Harris and I am a Trainee Clinical Psychologist at the University of Essex. As part of my doctorate research I would like to invite you to participate in this project concerned with the attitudes people hold towards expressing emotion. My research is being supervised by Dr Leanne Andrews and Dr Syd Hiskey, who together with me make up the research team.

Before you decide whether you want to take part, it is important to understand why the research is being done and what your participation will involve. Please take time to read the following information carefully. Anyone who is 18 years of age or older can participate in the research. You can give your consent to participate in the research at the bottom of the page.

What is the research and why is it important?

The research is interested in what people think about expressing emotions. The project could help health-care professionals better understand the ways that people cope with strong emotions caused by different life events and stressful experiences. This can help health-care providers when working with people in therapy to support them in the best way possible.

Are there any benefits involved in participating?

You may find the project interesting and enjoy answering questions about your attitudes. At the conclusion of the project in September 2016, we will publish the findings which may be of interest to you on a website (website address is given at end of questionnaire).

What would you be invited to do if you participate?

You will be asked to answer questions about your attitudes towards expressing emotions and related themes such as compassion. You will also be asked some questions about your mood, your age, living arrangements, ethnicity and relationship status.

How long will the questionnaires take to complete?

The questionnaires can take approximately 15 to 20 minutes to complete.

Are there any risks?

There should be no risks in this research. However, as the research is interested in your attitudes towards emotional expression and compassion, it may be that you reflect on your mental well-being. If you are or become distressed please contact the research team in order for us to signpost you on to an appropriate source of support.

You may also be interested in the NHS website page on mental well-being  
[www.nhs.uk/Livewell/mentalhealth/Pages/Mentalhealthhome.aspx](http://www.nhs.uk/Livewell/mentalhealth/Pages/Mentalhealthhome.aspx)  
or the MIND website  
[www.mind.org.uk/information-support/local-minds/](http://www.mind.org.uk/information-support/local-minds/).

How will we maintain your privacy and confidentiality?

Everything you answer on the questionnaires will be kept completely confidential. Paper copies of the

questionnaire will be locked in secure cabinets and will be made available only to members of the Project team. When the information is transferred onto the secure computer, the paper questionnaire will be shredded.

Your rights as a participant

It is up to you to decide whether to take part or not. If you decide to take part you are still free to withdraw at any time and without giving a reason. Once you submit your fully completed questionnaire it will not be possible to withdraw your data as responses are anonymous.

What If I have questions about the project?

Please contact Duncan Harris by email at dlharr@essex.ac.uk, by phone at 07586353561, or by post at School of Health and Human Sciences, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ. Alternatively, you can contact the study supervisors: Leanne Andrews: landre@essex.ac.uk Dr Syd Hiskey: syd.hiskey@nhs.net

Thank you for your time and interest. Please answer the consent question and click the arrow button at the bottom right of the page to continue.

**I have read the information about the study and consent to my responses being used in the ways stated**

**[ ] Yes (please tick if you consent to participating in this study)**

## Appendix B – Debrief page for Participants

Thank you for supporting our research study. We are very grateful for the time and effort you have spent completing the questionnaires.

If you have been distressed by any of the topics raised in the questionnaires please contact the research team in order for us to signpost you on to an appropriate source of support. You can contact us using any of the details below;

Duncan Harris: dlharr@essex.ac.uk or by phone at 07586353561, or by post at School of Health and Human Sciences, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ.

Alternatively, you can contact the study supervisors:

Leanne Andrews: landre@essex.ac.uk

Dr Syd Hiskey: syd.hiskey@nhs.net

### How will we maintain your privacy and confidentiality?

Everything you answered on the questionnaires will be kept completely confidential. The questionnaires will be locked in secure cabinets and will be made available only to members of the research team. When the information is transferred onto the secure computer, the paper questionnaires will be shredded.

### Your rights as a participant

You may withdraw your data by not sending back to the research team.

### What next?

Pass it on! We would appreciate it if you could pass the research study onto your friends and family. Contact us to get paper copies of the questionnaires. Passing it on will help us with our aim to help healthcare professionals provide better support for people coping with strong emotions caused by different life events and stressful experiences.

### Want to know what the research found?

The findings of the research will be shared in September 2016 on the following website <https://attitudestowardsemotionalexpressionresearch.wordpress.com>. A paper copy of the summary can be posted out on request using the contact details given.

Thank you for your time and help.

Appendix C - Positive and Negative Affect Scale (PANAS; Watson, Lee, & Tellegen, 1988)

**This scale consists of a number of words and phrases that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the past few weeks. Use the following scale to record your answers:**

	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
1. Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
8. Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
15. Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix D - Positive Functioning Inventory (PFI; Joseph & Maltby, 2014).

**A number of statements that people have made to describe how they feel are given below. Please read each one and tick the box which best describes how frequently you felt that way in the past seven days, including today. Some statements describe positive feelings and some describe negative feelings. You may have experienced both positive and negative feelings at different times during the past seven days.**

	Never	Rarely	Sometimes	Often
1. I felt dissatisfied with my life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I felt happy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I felt cheerless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I felt pleased with the way I am	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never	Rarely	Sometimes	Often
5. I felt that life was enjoyable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I felt that life was meaningless	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I felt content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I felt tense	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Never	Rarely	Sometimes	Often
9. I felt calm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I felt relaxed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I felt upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I felt worried	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix E - Attitudes towards Emotional Expression Scale (Joseph, Williams, Irving, & Cammock, 1994).

**The following statements relate to thoughts and behaviours concerning the expression of emotions. Please read each one and indicate how much you agree or disagree with it:**

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
1. I think you should always keep your feelings under control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I think you ought not to burden other people with your problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I think getting emotional is a sign of weakness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I think other people don't understand your feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. When I'm upset I bottle up my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. You should always keep your feelings to yourself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Other people will reject you if you upset them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. My bad feelings will harm other people if I express them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. If I express my feelings I'm vulnerable to attack	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. You should always hide your feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. When I'm upset I usually try to hide how I feel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I seldom show how I feel about things	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Turning to someone else for advice or help is an admission of weakness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. It is shameful for a person to display his or her weaknesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I should always have complete control over my feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. If other people know what you are really like, they will think less of you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. When I get upset I usually show how I feel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. People will reject you if they know your weaknesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. If a person asks for help it is a sign of weakness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. I don't feel comfortable showing my emotions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



Appendix F - Fear of Compassion Scales (Gilbert, McEwan, Matos, & Rivas, 2011).

**Different people have different views of compassion and kindness. While some people believe that it is important to show compassion and kindness in all situations and contexts, others believe we should be more cautious and can worry about showing it too much to ourselves and to others. We are interested in your thoughts and beliefs in regard to kindness and compassion in three areas of your life:**

- 1. Expressing compassion for others**
- 2. Responding to compassion from others**
- 3. Expressing kindness and compassion towards yourself**

**You will be shown a series of statements that we would like you to think carefully about and then circle the number that best describes how each statement fits you. Please use this scale to rate the extent that you agree with each statement about thoughts and beliefs about expressing compassion from others**

	0 = Don't Agree at All	1 =	2 = Somewhat Agree	3 =	4 = Completely Agree
1. People will take advantage of me if they see me as too compassionate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Being compassionate towards people who have done bad things is letting them off the hook	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. There are some people in life who don't deserve compassion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I fear that being too compassionate makes people an easy target	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. People will take advantage of you if you are too forgiving and compassionate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I worry that if I am compassionate, vulnerable people can be drawn to me and drain my emotional resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. People need to help themselves rather than waiting for others to help them	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I fear that if I am compassionate, some people will become too dependent upon me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Being too compassionate makes people soft and easy to take advantage of	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. For some people, I think discipline and proper punishments are more helpful than being compassionate to them	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please use this scale to rate the extent that you agree with each statement about thoughts and beliefs about responding to compassion from others**

	0 = Don't Agree at All	1 =	2 = Somewhat Agree	3 =	4 = Completely Agree
1. Wanting others to be kind to oneself is a weakness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I fear that when I need people to be kind and understanding they won't be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I'm fearful of becoming dependent on the care from others because they might not always be available or willing to give it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I often wonder whether displays of warmth and kindness from others are genuine	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Feelings of kindness from others are somehow frightening	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. When people are kind and compassionate towards me I feel anxious or embarrassed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. If people are friendly and kind I worry they will find out something bad about me that will change their mind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I worry that people are only kind and compassionate if they want something from me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. When people are kind and compassionate towards me I feel empty and sad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. If people are kind I feel they are getting too close	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Even though other people are kind to me, I have rarely felt warmth from my relationships with others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I try to keep my distance from others even if I know they are kind	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. If I think someone is being kind and caring towards me, I 'put up a barrier'	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Please use this scale to rate the extent that you agree with each statement about thoughts and beliefs about expressing kindness and compassion towards yourself**

	0 = Don't Agree at All	1 =	2 = Somewhat Agree	3 =	4 = Completely Agree
1. I feel that I don't deserve to be kind and forgiving to myself	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. If I really think about being kind and gentle with myself it makes me sad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Getting on in life is about being tough rather than compassionate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I would rather not know what being 'kind and compassionate to myself' feels like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. When I try and feel kind and warm to myself I just feel kind of empty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I fear that if I start to feel compassion and warmth for myself, I will feel overcome with a sense of loss/grief	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I fear that if I become kinder and less self-critical to myself then my standards will drop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I fear that if I am more self compassionate I will become a weak person	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I have never felt compassion for myself, so I would not know where to begin to develop these feelings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. I worry that if I start to develop compassion for myself I will become dependent on it	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. I fear that if I become too compassionate to myself I will lose my self-criticism and my flaws will show	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. I fear that if I develop compassion for myself, I will become someone I do not want to be	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. I fear that if I become too compassionate to myself others will reject me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. I find it easier to be critical towards myself rather than compassionate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. I fear that if I am too compassionate towards myself, bad things will happen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix G - Ethical Approval Application



University of Essex

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T 01206 873333  
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[www.essex.ac.uk](http://www.essex.ac.uk)

11 June 2015

Mr Duncan Harris  
66 Maidenburgh Street  
Colchester  
Essex  
CO1 1UB

Dear Duncan,

**Re: Ethical Approval Application (Ref. 14033)**

Further to your application for ethical approval, please find enclosed a copy of your application which has now been approved by the Research Director.

Kind regards,

Lisa McKee  
Ethics Administrator  
Health and Human Sciences

cc. Leanne Andrews, Supervisor  
Sarah Manning-Press, REO



*REVISED* ✓

**Application for Ethical Approval of Research Involving Human Participants**

This application form should be completed for any research involving human participants conducted in or by the University. 'Human participants' are defined as including living human beings, human beings who have recently died (cadavers, human remains and body parts), embryos and fetuses, human tissue and bodily fluids, and human data and records (such as, but not restricted to medical, genetic, financial, personnel, criminal or administrative records and test results including scholastic achievements). Research should not commence until written approval has been received (from Departmental Research Director, Faculty Ethics Committee (FEC) or the University's Ethics Committee). This should be borne in mind when setting a start date for the project.

Applications should be made on this form, and submitted electronically, to your Departmental Research Director. A signed copy of the form should also be submitted. Applications will be assessed by the Research Director in the first instance, and may then passed to the FEC, and then to the University's Ethics Committee. A copy of your research proposal and any necessary supporting documentation (e.g. consent form, recruiting materials, etc) should also be attached to this form.

A full copy of the signed application will be retained by the department/school for 6 years following completion of the project. The signed application form cover sheet (two pages) will be sent to the Research Governance and Planning Manager in the REO as Secretary of the University's Ethics Committee.

1. 

RELATIONSHIP BETWEEN AGE AND ATTITUDES TO EMOTIONAL EXPRESSION WITH FEAR OF COMPASSION AS MODERATOR
---

2. The title of your project will be published in the minutes of the University Ethics Committee. If you object, then a reference number will be used in place of the title.  
Do you object to the title of your project being published? Yes  / No

3. This Project is:  Staff Research Project  Student Project

4. Principal Investigator(s) (students should also include the name of their supervisor):

Name:	Department:
Duncan Harris	Doctorate Programme in Clinical Psychology, Health and Human Sciences
Leanne Andrews	Doctorate Programme in Clinical Psychology, Health and Human Sciences
Syd Hiskey	NEPFT

5. 

<b>Proposed start date:</b> June 2015
---------------------------------------

6. 

<b>Probable duration:</b> April 2015
--------------------------------------

7. Will this project be externally funded? Yes  / No   
If Yes,

8. 

What is the source of the funding?

FoC, AEE and Subjective Well-Being

9. If external approval for this research has been given, then only this cover sheet needs to be submitted  
External ethics approval obtained (attach evidence of approval) Yes / No

**Declaration of Principal Investigator:**

The information contained in this application, including any accompanying information, is, to the best of my knowledge, complete and correct. I/we have read the University's *Guidelines for Ethical Approval of Research Involving Human Participants* and accept responsibility for the conduct of the procedures set out in this application in accordance with the guidelines, the University's *Statement on Safeguarding Good Scientific Practice* and any other conditions laid down by the University's Ethics Committee. I/we have attempted to identify all risks related to the research that may arise in conducting this research and acknowledge my/our obligations and the rights of the participants.

Signature(s): [Handwritten Signature]

Name(s) in block capitals: DUNCAN HARRIS

Date: 12.5.2015

**Supervisor's recommendation (Student Projects only):**

I have read and approved both the research proposal and this application.

Supervisor's signature: L. ANDREWS [Handwritten Signature]

**Outcome:**

The Departmental Director of Research (DoR) has reviewed this project and considers the methodological/technical aspects of the proposal to be appropriate to the tasks proposed. The DoR considers that the investigator(s) has/have the necessary qualifications, experience and facilities to conduct the research set out in this application, and to deal with any emergencies and contingencies that may arise.

- This application falls under Annex B and is approved on behalf of the FEC
- This application is referred to the FEC because it does not fall under Annex B
- This application is referred to the FEC because it requires independent scrutiny

Signature(s): [Handwritten Signature]

Name(s) in block capitals: WA/MS WILSON

Department: 10/6/15 SHHS

Date: 10/6/15

- The application has been approved by the FEC
- The application has not been approved by the FEC
- The application is referred to the University Ethics Committee

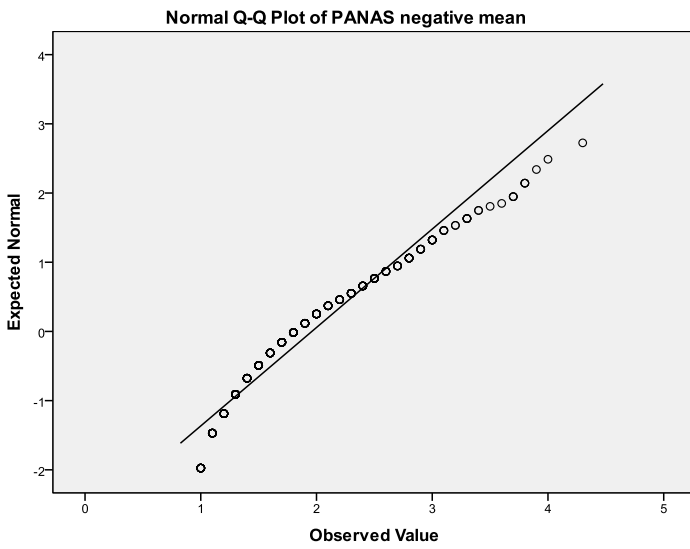
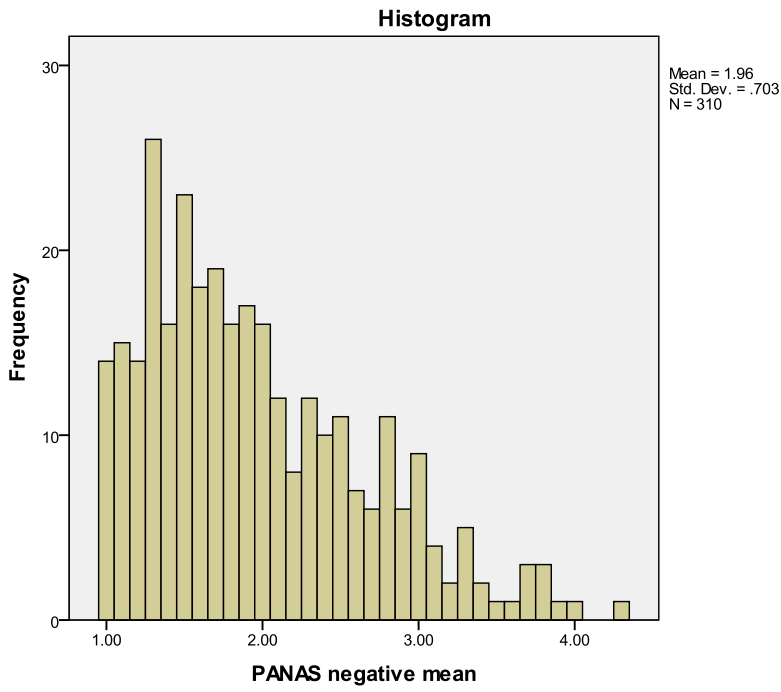
Signature(s):

Name(s) in block capitals:

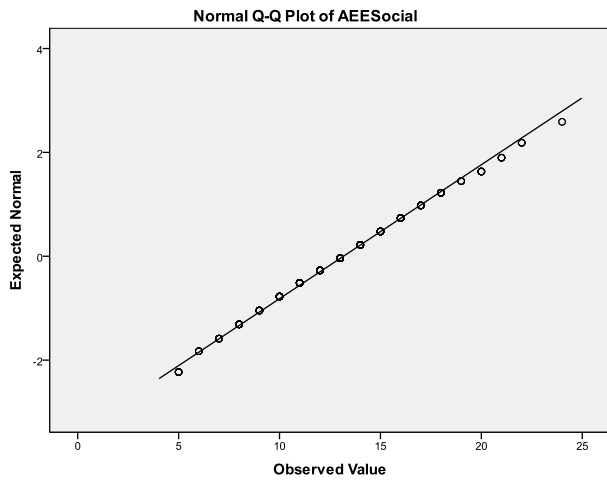
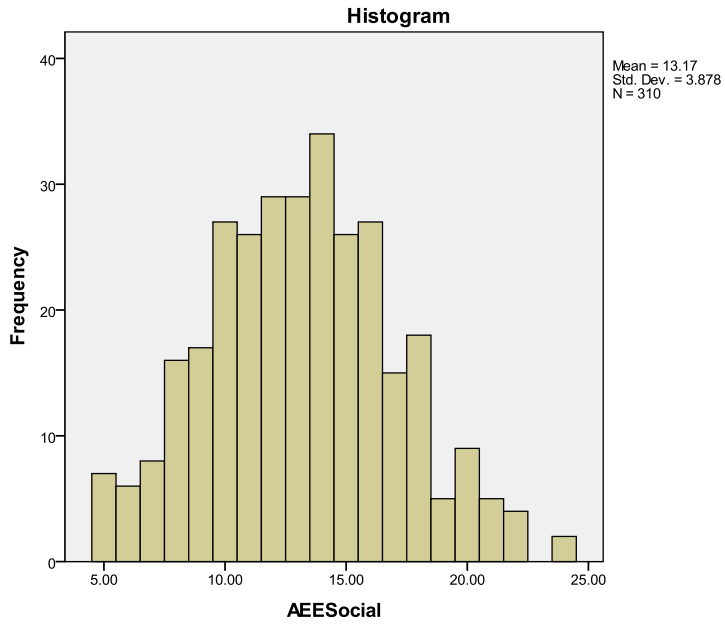
Faculty:

Date:

Appendix H - Test for Normal Distributions



# FoC, AEE and Subjective Well-Being





Appendix I – Multiple Regression Checks

